Appendix C.4

Nonroad Mobile Sources
Emission Inventory Documentation

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1.0 INTRODUCTION AND SCOPE

Nonroad mobile sources are equipment that can move but are not licensed to use the public roads and highways. The nonroad mobile source category includes a diverse collection of equipment such as lawn mowers, chain saws, tractors, all terrain vehicles, forklifts and construction equipment. Emissions from this equipment are calculated using the NONROAD model developed by the United States Environmental Protection Agency (USEPA). This category also includes aircraft, railroad locomotives, and commercial marine vessels. No commercial marine vessels operate in Catawba, Davidson, or Guilford counties so no emissions for this category are reported.

For this attainment demonstration, emissions of oxides of nitrogen (NOx), sulfur dioxide (SO2), and particulate matter 2.5 microns and smaller (PM2.5) were estimated for the base year of 2008 and future years of 2011, 2014, 2017, and 2021.

2.0 OVERALL METHODOLOGY

2.1 SOURCE CATEGORY IDENTIFICATION

Nonroad mobile sources were identified from the USEPA guidance document EPA-450/4-91-016, *Procedures for the Preparation of Emissions Inventories for Carbon Monoxide and Precursors of Ozone* (Procedures document). Nonroad mobile source emissions are estimated by the methodologies suggested in the USEPA document, EPA-454/R-05-001, *Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations*; EPA-450/4-81-026d (Revised) *Procedures for Emission Inventory Preparation, Volume IV; Mobile Sources* (Mobile Source Procedures); from the USEPA's nonroad mobile model NONROAD2008a released July 6, 2009; and from the EDMS5.0 model developed by the USEPA and the Federal Aviation Administration (FAA).

2.2 EMISSION ESTIMATION APPROACH

For the majority of nonroad categories, emissions were estimated using the USEPA's NONROAD2008a model. Model runs were performed for each of the three counties for each of the five years on a quarterly basis. The quarters were then summed to get annual emissions.

Aircraft emissions were obtained by growing an inventory developed for the year 2005 for the National Emissions Inventory (NEI). Growth factors were based on a model available from the FAA called the Terminal Area Forecast Model.

Railroad emissions were produced by growing an inventory developed for the year 2005 for the NEI. Growth factors were developed from freight statistics through the year 2005. Control measures were applied based on future fuel sulfur content standards and future railroad diesel standards.

3.0 QUALITY ASSURANCE MEASURES

For the NONROAD model runs, the options files (files that display the variables used to setup a model run) were reviewed by a second person who did not perform the actual runs. The model results were also evaluated by comparing one county to another to see that the results were reasonable taking into consideration the differences between the counties.

The original emission estimates for the railroad locomotives and aircraft were carefully reviewed when they were developed in accordance with normal procedures for preparing components for the NEI. They also received additional evaluation before being projected to the desired years. Projection and control factors were also reviewed before use.

4.0 EMISSIONS AND DETAILED METHODOLOGY

4.1 CATEGORIES FROM THE NONROAD MODEL

The USEPA included more than 80 different types of equipment in the NONROAD model. To facilitate analysis and reporting, the USEPA grouped the equipment types into ten equipment categories. These include:

Agricultural equipment	Lawn and garden equipment
Airport ground support equipment	Logging equipment
Commercial equipment	Railroad maintenance equipment
Construction equipment	Recreational marine equipment
Industrial equipment	Recreational equipment

Additionally, the emissions are estimated for five different engine types. These include: 2-stroke and 4-stroke spark ignition engines, diesel engines, liquid propane gas and compressed natural gas fueled engines. Although the model generates airport ground support equipment emission estimates, these estimates were not used. Rather, ground support equipment emissions were taken from the EDMS model results that are believed to be more accurate. This will be discussed under aircraft and airport emissions.

The NONROAD2008a model version was used to estimate emissions for the PM2.5 redesignation demonstration and maintenance plan. This latest version of the model was released to the public on July 6, 2009.

NONROAD2008a is the latest release of the USEPA NONROAD model that was first released in June 2000, and incorporates many revisions to improve the model's predictive ability. Compared to NONROAD2005c, this model revision accounts for emission reductions from the Diesel Recreational Marine standards in the Loco/Marine final rule published in the Federal Register (FR) (73FR 25098) and the Small SI and SI Recreational Marine final rule (FR 59034). There are a number of additional improvements including the ability to model the effects of ethanol blends on fuel tank and hose permeation losses.

The options files (wherein all the modeling variables are set) used in the NONROAD2008a model were tailored to reflect North Carolina specific information. Copies of the options input files are in Section 6.0 of this document. The model was run on a seasonal basis with temperature data specific to each county for the years 2008, 2011, 2014, 2017, and 2021. The seasonal file for the model was modified to place North Carolina in the Southeast states group rather than the Mid-Atlantic group. This change was made because the NCDAQ had reviewed temperature data of North Carolina compared to states in the Southeast and the Mid-Atlantic. The results of this comparison indicated that North Carolina temperatures are more in-line with the Southeast States. Future year estimates of fuel oxygen (due to Federal ethanol mandates) and fuel sulfur (due to the USEPA requirements) were incorporated. Default data was used for the remaining input files used in the NONROAD model.

For reporting purposes, the resulting emissions from the NONROAD2008a model were totaled for each equipment category by county. The model generates NOx, SO2, and particulate 10 microns and smaller (PM10) emissions directly. PM2.5 was calculated by applying conversion factors (based on fuel type) to the PM10 values. The results for most of the equipment categories by county indicate a reduction in emissions with time into the future years. These reduced emission projections are influenced by several factors, including expected future changes in engine standards, fuel specifications, scrappage of old equipment, and activity levels. These future engine standards and activity levels are accounted for in the model.

The summary of the model results expressed in tons emitted per year (tpy) are tabulated in Table 4-1 through Table 4-9.

Table 4-1 Agricultural Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	42	38	33	28	21
Triad Area					
Davidson	60	55	47	40	30
Guilford	53	48	42	35	27
Triad Total	113	103	90	75	57
SO2 Emissions tpy					
Hickory Area					
Catawba	1	0	0	0	0
Triad Area					
Davidson	1	0	0	0	0
Guilford	1	0	0	0	0
Triad Total	2	0	0	0	0
PM2.5 Emissions tpy					
Hickory Area					
Catawba	4	3	3	2	1
Triad Area					
Davidson	5	5	4	3	2
Guilford	5	4	3	3	2
Triad Total	10	9	7	6	4

Table 4-2 Commercial Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	91	87	75	67	60
Triad Area					
Davidson	54	51	45	40	35
Guilford	402	385	334	296	265
Triad Total	456	437	378	336	300
SO2 Emissions tpy					
Hickory Area					
Catawba	1	0	0	0	0
Triad Area					
Davidson	1	0	0	0	0
Guilford	5	1	1	1	1
Triad Total	6	1	1	1	1
PM2.5 Emissions tpy					
Hickory Area					
Catawba	7	7	6	6	5
Triad Area					
Davidson	4	4	4	3	3
Guilford	31	30	27	25	22
Triad Total	36	34	31	28	25

Table 4-3 Construction Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	257	228	185	141	100
Triad Area					
Davidson	175	155	126	96	68
Guilford	1547	1370	1112	850	603
Triad Total	1722	1525	1237	946	672
SO2 Emissions tpy					
Hickory Area					
Catawba	6	1	0	0	0
Triad Area					
Davidson	4	0	0	0	0
Guilford	36	3	2	1	1
Triad Total	40	4	2	1	1
PM2.5 Emissions tpy					
Hickory Area					
Catawba	21	20	16	12	8
Triad Area					
Davidson	15	13	11	8	5
Guilford	128	118	96	72	47
Triad Total	143	131	107	81	52

Table 4-4 Industrial Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	620	412	263	184	149
Triad Area					
Davidson	317	213	139	99	82
Guilford	764	517	339	244	204
Triad Total	1081	730	478	343	287
SO2 Emissions tpy					
Hickory Area					
Catawba	6	1	1	1	1
Triad Area					
Davidson	3	1	1	0	1
Guilford	8	2	1	1	1
Triad Total	11	2	2	2	2
PM2.5 Emissions tpy					
Hickory Area					
Catawba	19	19	14	9	7
Triad Area					
Davidson	10	10	8	5	4
Guilford	25	24	18	12	9
Triad Total	35	34	26	17	13

Table 4-5 Lawn and Garden Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	52	50	40	36	35
Triad Area					
Davidson	39	38	30	27	26
Guilford	251	238	191	174	171
Triad Total	290	276	222	201	197
SO2 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	2	1	1	1	1
Triad Total	3	1	1	1	1
PM2.5 Emissions tpy					
Hickory Area					
Catawba	10	11	11	11	12
Triad Area					
Davidson	8	8	8	8	9
Guilford	52	54	55	57	60
Triad Total	59	62	63	65	68

Table 4-6 Logging Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	3	2	1	1	0
Triad Area					
Davidson	7	5	3	2	1
Guilford	6	4	3	2	1
Triad Total	13	10	6	3	2
SO2 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	0	0	0	0	0
Triad Total	0	0	0	0	0
PM2.5 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	1	1	1	0	0
Guilford	1	1	1	0	0
Triad Total	1	1	1	1	1

Table 4-7 Railway Maintenance

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	2	1	1	1	1
Guilford	1	1	1	1	1
Triad Total	3	3	3	2	2
SO2 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	0	0	0	0	0
Triad Total	0	0	0	0	0
PM2.5 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	0	0	0	0	0
Triad Total	0	0	0	0	0

Table 4-8 Recreational Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	6	6	6	6	6
Triad Area					
Davidson	3	3	3	3	3
Guilford	8	7	6	6	6
Triad Total	12	10	9	9	9
SO2 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	0	0	0	0	0
Triad Total	0	0	0	0	0
PM2.5 Emissions tpy					
Hickory Area					
Catawba	5	4	4	3	2
Triad Area					
Davidson	2	2	2	2	1
Guilford	3	2	2	2	1
Triad Total	5	5	4	3	3

Table 4-9 Recreational Marine Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	9	11	11	11	10
Triad Area					
Davidson	10	11	12	12	11
Guilford	5	6	6	6	6
Triad Total	16	17	18	18	17
SO2 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	0	0	0	0	0
Triad Total	0	0	0	0	0
PM2.5 Emissions tpy					
Hickory Area					
Catawba	1	1	1	0	0
Triad Area					
Davidson	1	1	1	0	0
Guilford	1	0	0	0	0
Triad Total	2	1	1	1	0

4.2 AIRCRAFT ENGINES AND AIRPORT GROUND SUPPORT

Aircraft engines, like other engines, emit pollutants whenever the engines are in operation. However, the only emissions that are of concern for this inventory are the portion of the operation that occurs below the mixing layer. This is because the emissions tend to disperse whenever the aircraft is above the mixing layer and therefore have little or no effect on ground level air pollutants.

The aircraft operations of interest are produced during the landing and takeoff (LTO) cycle. The cycle begins when the aircraft approaches the airport, descending below the mixing layer, lands and taxis to the gate. It continues as the aircraft idles at the gate and then taxis back out to the

runway for the subsequent takeoff and climbout as it heads back to cruising altitudes, above the mixing layer.

Aircraft can be categorized by use into four classifications: commercial, air taxis, general aviation and military. Commercial aircraft include those used for scheduled service transporting passengers, freight or both. Air taxis and commuter aircraft also fly scheduled service carrying passengers and/or freight but usually are smaller aircraft and operate on a more limited basis than commercial carriers. Air taxis may also be used for unscheduled on-demand flights. General aviation includes all other non-military aircraft used for recreational flying, personal transportation, and various other activities. Military aircraft cover a wide range of sizes, uses, and operating missions. The military aircraft are treated as a separate classification since the LTO operations reported at the airports group all military aircraft together.

Emission estimates were developed for year 2005 for all airports in North Carolina as part of the National Emission Inventory. Emission calculations were made using the EDMS5.0 model developed by the USEPA and the Federal Aviation Administration (FAA). Emissions for aircraft operations in Catawba, Davidson, and Guilford counties were projected from 2005 to the maintenance plan years 2008, 2011, 2014, 2017, and 2021 using growth factors developed from the FAA's Terminal Area Forecast for North Carolina. The EDMS model calculates emissions from ground support equipment associated with certain aircraft and emissions from auxiliary power units (APU). Ground support equipment consists of equipment such as tractors used to tow airplanes to the gate or catering trucks that bring food to large airliners. APUs are typically smaller engines on aircraft that provide power for electricity or air conditioning when the main engines are shut off.

Statistics of aircraft operations for large air carriers by aircraft type at the larger airports, i.e. airports with FAA or contractor tower personnel, were obtained from the Bureau of Transportation Statistics of the U.S. Department of Transportation. This is the T-100 report and can be obtained by state by year. For these same airports, total operations counts for large air carriers, all air taxis, general aviation, and military flights were obtained from the FAA's Air Traffic Activity System (ATADS) report called *Tower Operations : Standard Report*. Because landing and takeoff (LTO) data by aircraft type (make and model) for small air taxis, general aviation, and military flights is not available, assumptions were made about the types of aircraft and their percentages of the total operations. Survey data from the FAA reported in *General Aviation and Air Taxi Activity and Avionics (GAATAA) Surveys CY2005* was used to divide the general aviation LTO data by engine type, engine number, and fixed wing or helicopter. An appropriate aircraft type was selected as a stand-in for all aircraft in each subcategory. An appropriate aircraft was selected for the small air taxi category. For military flights, LTO data provided by the Army and Air Force at bases in North Carolina was examined. Eight types of military aircraft were selected that were expected to operate at civilian airports for various training and operational purposes. Fractions of total operations were assigned for each aircraft type and these values were used to apportion the military flights. All of this data was entered into the EDMS model to calculate emissions at the airports.

Data concerning the operations at the smallest airports was obtained from Jay H. Pate of the North Carolina Department of Transportation (NCDOT). Mr. Pate provided a FAA 5010 report

that was updated with any additional information available to him. The same apportionment approach for general aviation as described above was then used to provide data to enter into the EDMS model to calculate emissions.

Catawba and Guilford counties each have one airport listed in the FAA's T-100 report and the ATADS report. Additionally, there are several smaller airports in each of the three counties.

Table 4-10 summarizes the NOx, SO2, and PM2.5 emissions from aircraft ground support equipment. Table 4-11 summarizes the NOx, SO2, and PM2.5 emissions from aircraft engines and any related auxiliary power units.

Table 4-10 Airport Ground Support Equipment

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	2	2	2	2	2
Triad Area					
Davidson	1	1	1	1	1
Guilford	43	44	45	46	48
Triad Total	44	44	46	47	49
SO2 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	3	3	3	4	4
Triad Total	3	3	4	4	4
PM2.5 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	1	1	1	1	1
Triad Total	1	1	1	1	1

Table 4-11 Aircraft and Auxiliary Power Units

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	5	5	5	5	5
Triad Area					
Davidson	3	3	3	3	3
Guilford	195	196	202	208	216
Triad Total	198	198	205	211	219
SO2 Emissions tpy					
Hickory Area					
Catawba	1	1	1	1	1
Triad Area					
Davidson	1	1	1	1	1
Guilford	31	31	32	33	35
Triad Total	32	32	33	34	35
PM2.5 Emissions tpy					
Hickory Area					
Catawba	0	0	0	0	0
Triad Area					
Davidson	0	0	0	0	0
Guilford	6	6	6	6	6
Triad Total	6	6	6	6	6

4.3 RAILROAD LOCOMOTIVES

Railroad companies are categorized by size (Class I, Class II, or Class III) and passenger service (Amtrak and NCDOT Rail Division). Class I railroad companies are long haul operations, consisting of Norfolk Southern Corporation and CSX Corporation. Class II and Class III railroad companies are short lines serving localized markets. Amtrak and the NCDOT Rail Division provide passenger service. These entities lease trackage from Class I railroad companies.

Railroad locomotive emissions were calculated for all of North Carolina for 2005 as part of the National Emissions Inventory. Data was obtained from the railroad companies and publicly

available sources as recommended by the USEPA inventory guidance. The projection from 2005 to 2008, 2011, 2014, 2017, and 2021 was made using growth factors generated from statistics of domestic railroad freight tonnage from 1996 through 2005. Reductions of NOx, and PM2.5 were estimated based on future USEPA control requirements. SO2 reductions were based on future fuel sulfur allowances. Table 4-12 sumarizes emissions from railroad locomotives.

Table 4-12 Railroad Locomotives

County \ Year	**2008**	**2011**	**2014**	**2017**	**2021**
NOx Emissions tpy					
Hickory Area					
Catawba	86	81	78	71	63
Triad Area					
Davidson	1161	1095	1057	952	852
Guilford	587	554	534	481	431
Triad Total	1748	1649	1591	1433	1283
SO2 Emissions tpy					
Hickory Area					
Catawba	1	2	0	0	0
Triad Area					
Davidson	14	15	0	1	1
Guilford	8	9	0	0	0
Triad Total	22	24	1	1	1
PM2.5 Emissions tpy					
Hickory Area					
Catawba	2	2	1	1	1
Triad Area					
Davidson	25	23	20	15	15
Guilford	12	12	10	8	7
Triad Total	37	35	30	23	22

4.4 COMBINED NONROAD EMISSIONS

Table 4-13 presents the totals of all nonroad categories .

Table 4-13 County Totals Nonroad Categories

County \ Year	2008	2011	2014	2017	2021
NOx Emissions tpy					
Hickory Area					
Catawba	1173	922	700	551	453
Triad Area					
Davidson	1831	1632	1467	1275	1115
Guilford	3864	3370	2816	2350	1979
Triad Total	5695	5002	4283	3625	3094
SO2 Emissions tpy					
Hickory Area					
Catawba	18	6	4	3	4
Triad Area					
Davidson	25	17	2	2	2
Guilford	96	51	42	42	43
Triad Total	121	68	44	44	46
PM2.5 Emissions tpy					
Hickory Area					
Catawba	70	67	57	46	38
Triad Area					
Davidson	71	67	58	46	40
Guilford	264	252	220	186	157
Triad Total	335	319	278	232	196

5.0 PROJECTION AND CONTROL FACTORS

5.1 AIRCRAFT EMISSIONS GROWTH

Emissions for aircraft were grown using factors calculated from estimates of future operations produced with the FAA's Terminal Area Forecast Model. Projections were made from 2005 NEI data. Total operations of aircraft (based and itinerant) for the North Carolina airports

included in the model were used to produce the factors. Every year from the 2005 base to 2025 is shown. These estimates are shown in table 5-1.

Table 5-1 Aircraft Operations Factors

SYSYEAR	Operations	NC Growth-- Ops_{yr}/Ops_{2005}
2005	2737211	1.00000
2006	2758543	1.00779
2007	2824684	1.03196
2008	2790253	1.01938
2009	2758886	1.00792
2010	2769398	1.01176
2011	2795509	1.02130
2012	2820272	1.03035
2013	2845602	1.03960
2014	2889496	1.05564
2015	2916461	1.06549
2016	2944034	1.07556
2017	2972263	1.08587
2018	3001132	1.09642
2019	3030650	1.10720
2020	3060861	1.11824
2021	3089034	1.12853
2022	3117795	1.13904
2023	3147145	1.14976
2024	3177104	1.16071
2025	3207704	1.17189

5.2 RAILROAD EMISSIONS GROWTH AND CONTROL

Statistics of ton miles of freight shipped by railroad were obtained from the Bureau of Transportation Statistics Special Report SR-002 titled *A Decade of Growth in Domestic Freight* dated July 2007. Freight tonnage from 1996 through 2005 was used to calculate linear regressions of future tonnage. These values were used to calculate growth factors to project the 2005 railroad locomotive emissions inventory to 2008, 2011, 2014, 2017, and 2021.

Future year railroad emission factors for NOx and PM10 from *Emission Factors for Locomotives* (EPA-420-F-09-025, April 2009) were used to produce control factors for NOx and PM2.5. About 97% of locomotive emissions of PM10 are considered PM2.5. Future year allowances for sulfur in locomotive diesel fuel were used to produce SO2 reduction factors. The table 5-2 shows the growth and control factors used.

Table 5-2 Railroad Growth and Control Factors

Year	Grow From 2005	NOx Adjustment	PM10 Adjustment	SO2 Adjustment
2005	1.000	1.000	1.000	1.000
2008	1.061	0.941	0.797	0.227
2011	1.128	0.835	0.703	0.227
2014	1.196	0.761	0.578	0.007
2017	1.263	0.649	0.469	0.007
2021	1.352	0.543	0.375	0.007

6.0 NONROAD2008a OPTION FILES

CATAWBA COUNTY 2008 AUTUMN

Written by Nonroad interface at 8/20/2009 2:43:39 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2008 AUTUMN
Fuel RVP for gas : 12.0
Oxygen Weight % : 1.87
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.9
Maximum temper. (F): 70.3

Average temper. (F): 59.7
Altitude of region : LOW
EtOH Blend % Mkt : 57.5
EtOH Vol % : 9.3
/END/

REGION PACKET

This is the packet that defines the region for which emissions are to be estimated.

The first record tells the type of region and allocation to perform.

Valid responses are:

US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS

code means include all counties in the
state.

SUBCOUNTY - county FIPS code and subregion code.

/REGION/
Region Level : COUNTY
Catawba County NC : 37035
/END/

or use -
Region Level : STATE
Michigan : 26000

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

/SOURCE CATEGORY/
:2260001000
:2265001000
:2267001000
:2268001000
:2270001000
:2260002000
:2265002000
:2267002000
:2268002000
:2270002000
:2260003000
:2265003000
:2267003000
:2268003000
:2270003000
:2260004000
:2265004000
:2267004000
:2268004000
:2270004000
:2260005000

:2265005000
:2267005000
:2268005000
:2270005000
:2260006000
:2265006000
:2267006000
:2268006000
:2270006000
:2260007000
:2265007000
:2267007000
:2268007000
:2270007000
:2260009000
:2265009000
:2267009000
:2268009000
:2270009000
:2260010000
:2265010000
:2267010000
:2268010000
:2270010000
:2285000000
:2282000000
/END/

Diesel Only -
:2270000000
:2282020000
:2285002015
Spark Ignition Only -
:2260000000
:2265000000
:2267000000
:2268000000
:2282005010
:2282005015
:2282010005
:2285004015
:2285006015

This is the packet that lists the names of output files
and some of the input data files read by the model. If

a drive:\path\ is not given, the location of the
NONROAD.EXE file itself is assumed. You will probably
want to change the names of the Output and Message files
to match that of the OPTion file, e.g., MICH-97.OPT,
MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.

```
-----------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\caau08ne.msg
OUTPUT DATA       : c:\nonroad\outputs\caau08ne.out
EPS2 AMS          :
US COUNTIES FIPS  : data\allocate\fips.dat
RETROFIT          :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
```

```
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
```

```
Diurnal           : data\detfac\evdiu.det
Tank Perm         : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks         : data\detfac\evhotsk.det
RuningLoss        : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2       0.2000    0.02247
T3       0.2000    0.02247
T3B      0.0500    0.02247
T4A      0.0500    0.02247
T4B      0.0015    0.02247
T4       0.0015    0.30
T4N      0.0015    0.30
/END/
```

CATAWBA COUNTY 2011 AUTUMN

Written by Nonroad interface at 8/21/2009 9:27:01 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 AUTUMN
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.9
Maximum temper. (F): 70.3
Average temper. (F): 59.7
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\caau11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\caau11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT :
EVAP BMY OUT :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP :
/END/

PM Base Sulfur
cols 1-10: dsl tech type;
11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2 0.2000 0.02247
T3 0.2000 0.02247
T3B 0.0500 0.02247
T4A 0.0500 0.02247
T4B 0.0015 0.02247
T4 0.0015 0.30
T4N 0.0015 0.30
/END/

CATAWBA COUNTY 2014 AUTUMN

Written by Nonroad interface at 8/21/2009 9:37:45 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 AUTUMN
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.9
Maximum temper. (F): 70.3
Average temper. (F): 59.7
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\caau14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\caau14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT :
EVAP BMY OUT :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP :
/END/

PM Base Sulfur
cols 1-10: dsl tech type;
11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2 0.2000 0.02247
T3 0.2000 0.02247
T3B 0.0500 0.02247
T4A 0.0500 0.02247
T4B 0.0015 0.02247
T4 0.0015 0.30
T4N 0.0015 0.30
/END/

CATAWBA COUNTY 2017 AUTUMN

Written by Nonroad interface at 8/21/2009 9:49:10 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 AUTUMN
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.9
Maximum temper. (F): 70.3
Average temper. (F): 59.7
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\caau17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\caau17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2021 AUTUMN

Written by Nonroad interface at 9/15/2009 2:24:44 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 AUTUMN
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.9
Maximum temper. (F): 70.3
Average temper. (F): 59.7
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\caau21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\caau21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2008 SPRING

Written by Nonroad interface at 8/20/2009 2:38:33 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC CATAWBA COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 SPRING
Fuel RVP for gas   : 12.0
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 46.7
Maximum temper. (F): 69.6
Average temper. (F): 58.2
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casp08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casp08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2011 SPRING

Written by Nonroad interface at 8/21/2009 9:30:25 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 46.7
Maximum temper. (F): 69.6
Average temper. (F): 58.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casp11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casp11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2014 SPRING

Written by Nonroad interface at 8/21/2009 9:39:51 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 46.7
Maximum temper. (F): 69.6
Average temper. (F): 58.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casp14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casp14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT :
EVAP BMY OUT :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP :
/END/

PM Base Sulfur
cols 1-10: dsl tech type;
11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2 0.2000 0.02247
T3 0.2000 0.02247
T3B 0.0500 0.02247
T4A 0.0500 0.02247
T4B 0.0015 0.02247
T4 0.0015 0.30
T4N 0.0015 0.30
/END/

CATAWBA COUNTY 2017 SPRING

Written by Nonroad interface at 8/21/2009 9:51:49 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 46.7
Maximum temper. (F): 69.6
Average temper. (F): 58.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casp17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casp17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2021 SPRING

Written by Nonroad interface at 9/15/2009 2:26:49 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 46.7
Maximum temper. (F): 69.6
Average temper. (F): 58.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casp21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casp21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2008 SUMMER

Written by Nonroad interface at 8/20/2009 2:41:29 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2008 SUMMER
Fuel RVP for gas : 9.0
Oxygen Weight % : 1.87
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 65.8
Maximum temper. (F): 86.0
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 57.5
EtOH Vol % : 9.3
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casu08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casu08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2011 SUMMER

Written by Nonroad interface at 8/21/2009 9:42:06 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC CATAWBA COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2011 SUMMER
Fuel RVP for gas   : 9.0
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 65.8
Maximum temper. (F): 86.0
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casu11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casu11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2014 SUMMER

Written by Nonroad interface at 8/21/2009 9:44:07 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 SUMMER
Fuel RVP for gas : 9.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 65.8
Maximum temper. (F): 86.0
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casu14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casu14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2017 SUMMER

Written by Nonroad interface at 8/21/2009 9:54:36 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 SUMMER
Fuel RVP for gas : 9.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 68.8
Maximum temper. (F): 86.0
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casu17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casu17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2021 SUMMER

Written by Nonroad interface at 9/15/2009 2:30:05 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC CATAWBA COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2021 SUMMER
Fuel RVP for gas   : 9.0
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 65.8
Maximum temper. (F): 86.0
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\casu21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\casu21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2008 WINTER

Written by Nonroad interface at 8/20/2009 4:24:43 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC CATAWBA COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 WINTER
Fuel RVP for gas   : 14.5
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 30.8
Maximum temper. (F): 51.2
Average temper. (F): 41.0
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\cawi08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\cawi08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2011 WINTER

Written by Nonroad interface at 8/21/2009 9:35:32 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.0030
Minimum temper. (F): 30.8
Maximum temper. (F): 51.2
Average temper. (F): 41.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\cawi11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\cawi11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2014 WINTER

Written by Nonroad interface at 8/21/2009 9:46:07 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC CATAWBA COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2014 WINTER
Fuel RVP for gas   : 14.5
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur %   : 0.0030
Minimum temper. (F): 30.8
Maximum temper. (F): 51.2
Average temper. (F): 41.0
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\cawi14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\cawi14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2017 WINTER

Written by Nonroad interface at 8/21/2009 9:57:57 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 30.8
Maximum temper. (F): 51.2
Average temper. (F): 41.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\cawi17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\cawi17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

CATAWBA COUNTY 2021 WINTER

Written by Nonroad interface at 9/15/2009 3:29:46 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC CATAWBA COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 30.8
Maximum temper. (F): 51.2
Average temper. (F): 41.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Catawba County NC  : 37035
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\cawi21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\cawi21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2008 AUTUMN

Written by Nonroad interface at 8/20/2009 4:35:01 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 AUTUMN
Fuel RVP for gas   : 11.6
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 47.9
Maximum temper. (F): 71.7
Average temper. (F): 59.8
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\daau08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\daau08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2011 AUTUMN

Written by Nonroad interface at 8/24/2009 11:49:20 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 AUTUMN
Fuel RVP for gas : 11.6
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 47.9
Maximum temper. (F): 71.7
Average temper. (F): 59.8
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\daau11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\daau11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2014 AUTUMN

Written by Nonroad interface at 8/24/2009 11:51:28 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2014 AUTUMN
Fuel RVP for gas   : 11.6
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 47.9
Maximum temper. (F): 71.7
Average temper. (F): 59.8
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\daau14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\daau14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2017 AUTUMN

Written by Nonroad interface at 8/24/2009 11:53:33 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 AUTUMN
Fuel RVP for gas : 11.6
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 47.9
Maximum temper. (F): 71.7
Average temper. (F): 59.8
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\daau17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\daau17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2021 AUTUMN

Written by Nonroad interface at 9/15/2009 2:37:32 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2021 AUTUMN
Fuel RVP for gas   : 11.6
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 47.9
Maximum temper. (F): 71.7
Average temper. (F): 59.8
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\daau21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\daau21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2008 SPRING

Written by Nonroad interface at 8/20/2009 4:30:40 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2008 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 1.87
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 45.9
Maximum temper. (F): 71.7
Average temper. (F): 58.8
Altitude of region : LOW
EtOH Blend % Mkt : 57.5
EtOH Vol % : 9.3
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and

allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

/REGION/
Region Level : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level : STATE
Michigan : 26000

```
-----------------------------------------------------

                SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed.  It is optional.
If used, only those source categories list will
appear in the output data file.  If the packet is
not found, the model will process all source
categories in the population files.
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
```

```
            :2270007000
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-----------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-----------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
```

```
MESSAGE           : c:\nonroad\outputs\dasp08ne.msg
OUTPUT DATA       : c:\nonroad\outputs\dasp08ne.out
EPS2 AMS          :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT          :
/END/

-------------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-------------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-------------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-------------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
```

```
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
/END/
-------------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-------------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-------------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-------------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
```

```
Control Factor     : 0.0
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2011 SPRING

Written by Nonroad interface at 8/24/2009 11:58:10 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 45.9
Maximum temper. (F): 71.7
Average temper. (F): 58.8
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasp11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasp11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2014 SPRING

Written by Nonroad interface at 8/24/2009 12:02:42 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 45.9
Maximum temper. (F): 71.7
Average temper. (F): 58.8
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasp14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasp14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2017 SPRING

Written by Nonroad interface at 8/24/2009 12:04:38 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 45.9
Maximum temper. (F): 71.7
Average temper. (F): 58.8
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasp17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasp17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2021 SPRING

Written by Nonroad interface at 9/15/2009 2:39:51 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2021 SPRING
Fuel RVP for gas   : 12.0
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 45.9
Maximum temper. (F): 71.7
Average temper. (F): 58.8
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasp21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasp21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2008 SUMMER

Written by Nonroad interface at 8/20/2009 4:32:44 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 SUMMER
Fuel RVP for gas   : 7.8
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 65.2
Maximum temper. (F): 87.3
Average temper. (F): 76.3
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasu08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasu08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-------------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-------------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-------------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-------------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT :
EVAP BMY OUT :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP :
/END/

PM Base Sulfur
cols 1-10: dsl tech type;
11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2 0.2000 0.02247
T3 0.2000 0.02247
T3B 0.0500 0.02247
T4A 0.0500 0.02247
T4B 0.0015 0.02247
T4 0.0015 0.30
T4N 0.0015 0.30
/END/

DAVIDSON COUNTY 2011 SUMMER

Written by Nonroad interface at 8/24/2009 12:09:19 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 65.2
Maximum temper. (F): 87.3
Average temper. (F): 76.3
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasu11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasu11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2014 SUMMER

Written by Nonroad interface at 8/24/2009 12:12:38 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 65.2
Maximum temper. (F): 87.3
Average temper. (F): 76.3
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source categories are to be processed. It is optional. If used, only those source categories list will appear in the output data file. If the packet is not found, the model will process all source categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasu14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasu14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2017 SUMMER

Written by Nonroad interface at 8/24/2009 12:14:38 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 65.2
Maximum temper. (F): 87.3
Average temper. (F): 76.3
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasu17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasu17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2021 SUMMER

Written by Nonroad interface at 9/15/2009 2:41:54 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 65.2
Maximum temper. (F): 87.3
Average temper. (F): 76.3
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dasu21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dasu21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2008 WINTER

Written by Nonroad interface at 8/20/2009 4:38:03 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 WINTER
Fuel RVP for gas   : 14.5
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 30.2
Maximum temper. (F): 52.2
Average temper. (F): 41.2
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dawi08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dawi08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2011 WINTER

Written by Nonroad interface at 8/24/2009 12:19:10 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.0030
Minimum temper. (F): 30.2
Maximum temper. (F): 52.2
Average temper. (F): 41.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dawi11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dawi11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT :
EVAP BMY OUT :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP :
/END/

PM Base Sulfur
cols 1-10: dsl tech type;
11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2 0.2000 0.02247
T3 0.2000 0.02247
T3B 0.0500 0.02247
T4A 0.0500 0.02247
T4B 0.0015 0.02247
T4 0.0015 0.30
T4N 0.0015 0.30
/END/

DAVIDSON COUNTY 2014 WINTER

Written by Nonroad interface at 8/24/2009 12:23:36 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC DAVIDSON  COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2014 WINTER
Fuel RVP for gas   : 14.5
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur %   : 0.0030
Minimum temper. (F): 30.2
Maximum temper. (F): 52.2
Average temper. (F): 41.2
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dawi14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dawi14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2017 WINTER

Written by Nonroad interface at 8/24/2009 12:25:34 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 30.2
Maximum temper. (F): 52.2
Average temper. (F): 41.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dawi17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dawi17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

DAVIDSON COUNTY 2021 WINTER

Written by Nonroad interface at 9/15/2009 2:43:53 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC DAVIDSON COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 30.2
Maximum temper. (F): 52.2
Average temper. (F): 41.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Davidson County NC : 37057
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\dawi21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\dawi21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-------------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-------------------------------------------------------
/POP FILES/
Population File    :c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-------------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-------------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2008 AUTUMN

Written by Nonroad interface at 8/20/2009 4:43:58 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC GUILFORD COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 AUTUMN
Fuel RVP for gas   : 11.6
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 48.7
Maximum temper. (F): 69.6
Average temper. (F): 59.2
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guau08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guau08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2011 AUTUMN

Written by Nonroad interface at 8/25/2009 9:20:14 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 AUTUMN
Fuel RVP for gas : 11.6
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.7
Maximum temper. (F): 69.6
Average temper. (F): 59.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guau11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guau11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2014 AUTUMN

Written by Nonroad interface at 8/25/2009 9:22:21 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 AUTUMN
Fuel RVP for gas : 11.6
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.7
Maximum temper. (F): 69.6
Average temper. (F): 59.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guau14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guau14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2017 AUTUMN

Written by Nonroad interface at 8/25/2009 9:24:29 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 AUTUMN
Fuel RVP for gas : 11.6
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.7
Maximum temper. (F): 69.6
Average temper. (F): 59.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guau17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guau17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2021 AUTUMN

Written by Nonroad interface at 9/15/2009 2:46:04 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Autumn
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 AUTUMN
Fuel RVP for gas : 11.6
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 48.7
Maximum temper. (F): 69.6
Average temper. (F): 59.2
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guau21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guau21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2008 SPRING

Written by Nonroad interface at 8/20/2009 4:40:01 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC GUILFORD COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 SPRING
Fuel RVP for gas   : 12.0
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 46.0
Maximum temper. (F): 69.0
Average temper. (F): 57.5
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusp08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusp08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2011 SPRING

Written by Nonroad interface at 8/25/2009 9:28:26 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC GUILFORD COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2011 SPRING
Fuel RVP for gas   : 12.0
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 46.0
Maximum temper. (F): 69.0
Average temper. (F): 57.5
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusp11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusp11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2014 SPRING

Written by Nonroad interface at 8/25/2009 9:30:25 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 46.0
Maximum temper. (F): 69.0
Average temper. (F): 57.5
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusp14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusp14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2017 SPRING

Written by Nonroad interface at 8/25/2009 9:33:50 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 SPRING
Fuel RVP for gas : 12.0
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 46.0
Maximum temper. (F): 69.0
Average temper. (F): 57.5
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusp17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusp17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2021 SPRING

Written by Nonroad interface at 9/15/2009 2:48:04 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Spring
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user options that drive the model. Most parameters are used to make episode specific emission factor adjustments. The order of the records is fixed. The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC GUILFORD COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2021 SPRING
Fuel RVP for gas   : 12.0
Oxygen Weight %    : 2.62
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 46.0
Maximum temper. (F): 69.0
Average temper. (F): 57.5
Altitude of region : LOW
EtOH Blend % Mkt   : 78.8
EtOH Vol %         : 9.5
/END/
```

REGION PACKET

This is the packet that defines the region for which emissions are to be estimated.

The first record tells the type of region and allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusp21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusp21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2008 SUMMER

Written by Nonroad interface at 8/20/2009 4:42:00 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2008 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 1.87
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 66.1
Maximum temper. (F): 85.7
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 57.5
EtOH Vol % : 9.3
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusu08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusu08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2011 SUMMER

Written by Nonroad interface at 8/25/2009 9:37:47 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 66.1
Maximum temper. (F): 85.7
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusu11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusu11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2014 SUMMER

Written by Nonroad interface at 8/25/2009 9:39:59 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 66.1
Maximum temper. (F): 85.7
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusu14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusu14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT :
EVAP BMY OUT :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP :
/END/

PM Base Sulfur
cols 1-10: dsl tech type;
11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2 0.2000 0.02247
T3 0.2000 0.02247
T3B 0.0500 0.02247
T4A 0.0500 0.02247
T4B 0.0015 0.02247
T4 0.0015 0.30
T4N 0.0015 0.30
/END/

GUILFORD COUNTY 2017 SUMMER

Written by Nonroad interface at 8/25/2009 9:42:06 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 66.1
Maximum temper. (F): 85.7
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusu17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusu17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2021 SUMMER

Written by Nonroad interface at 9/15/2009 2:50:08 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Summer
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user options that drive the model. Most parameters are used to make episode specific emission factor adjustments. The order of the records is fixed. The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 SUMMER
Fuel RVP for gas : 7.8
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 66.1
Maximum temper. (F): 85.7
Average temper. (F): 75.9
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which emissions are to be estimated.

The first record tells the type of region and allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\gusu21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\gusu21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2008 WINTER

Written by Nonroad interface at 8/20/2009 4:46:34 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2008
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

```
/OPTIONS/
Title 1          : NC GUILFORD COUNTY (EXCLUDE  AIRPORT)
Title 2          : 2008 WINTER
Fuel RVP for gas   : 14.5
Oxygen Weight %    : 1.87
Gas sulfur %       : 0.0030
Diesel sulfur %    : 0.0348
Marine Dsl sulfur %: 0.0408
CNG/LPG sulfur %   : 0.003
Minimum temper. (F): 30.1
Maximum temper. (F): 49.8
Average temper. (F): 40.0
Altitude of region : LOW
EtOH Blend % Mkt   : 57.5
EtOH Vol %         : 9.3
/END/
```

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guwi08ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guwi08ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2011 WINTER

Written by Nonroad interface at 8/25/2009 9:46:49 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2011
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2011 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0031
Marine Dsl sulfur %: 0.0234
CNG/LPG sulfur % : 0.0030
Minimum temper. (F): 30.1
Maximum temper. (F): 49.8
Average temper. (F): 40.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guwi11ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guwi11ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-------------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-------------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-------------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-------------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2014 WINTER

Written by Nonroad interface at 8/25/2009 9:48:50 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2014
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2014 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0019
Marine Dsl sulfur %: 0.0051
CNG/LPG sulfur % : 0.0030
Minimum temper. (F): 30.1
Maximum temper. (F): 49.8
Average temper. (F): 40.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guwi14ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guwi14ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2017 WINTER

Written by Nonroad interface at 8/25/2009 9:50:56 AM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2017
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2017 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 30.1
Maximum temper. (F): 49.8
Average temper. (F): 40.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
-----------------------------------------------------
/SOURCE CATEGORY/
                :2260001000
                :2265001000
                :2267001000
                :2268001000
                :2270001000
                :2260002000
                :2265002000
                :2267002000
                :2268002000
                :2270002000
                :2260003000
                :2265003000
                :2267003000
                :2268003000
                :2270003000
                :2260004000
                :2265004000
                :2267004000
                :2268004000
                :2270004000
                :2260005000
                :2265005000
                :2267005000
                :2268005000
                :2270005000
                :2260006000
                :2265006000
                :2267006000
                :2268006000
                :2270006000
                :2260007000
                :2265007000
                :2267007000
                :2268007000
                :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guwi17ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guwi17ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```

GUILFORD COUNTY 2021 WINTER

Written by Nonroad interface at 9/15/2009 2:52:08 PM
This is the options file for the NONROAD program.
The data is sperated into "packets" bases on common
information. Each packet is specified by an
identifier and a terminator. Any notes or descriptions
can be placed between the data packets.

9/2005 epa: Add growth & tech years to PERIOD packet
and Counties & Retrofit files to RUNFILES packet.

PERIOD PACKET

This is the packet that defines the period for
which emissions are to be estimated. The order of the
records matter. The selection of certain parameters
will cause some of the record that follow to be ignored.
The order of the records is as follows:

1 - Char 10 - Period type for this simulation.
Valid responses are: ANNUAL, SEASONAL, and MONTHLY
2 - Char 10 - Type of inventory produced.
Valid responses are: TYPICAL DAY and PERIOD TOTAL
3 - Integer - year of episode (4 digit year)
4 - Char 10 - Month of episode (use complete name of month)
5 - Char 10 - Type of day
Valid responses are: WEEKDAY and WEEKEND

/PERIOD/
Period type : Seasonal
Summation type : Period total
Year of episode : 2021
Season of year : Winter
Month of year :
Weekday or weekend : Weekday
Year of growth calc:
Year of tech sel :
/END/

OPTIONS PACKET

This is the packet that defines some of the user
options that drive the model. Most parameters are
used to make episode specific emission factor
adjustments. The order of the records is fixed.
The order is as follows.

1 - Char 80 - First title on reports
2 - Char 80 - Second title on reports
3 - Real 10 - Fuel RVP of gasoline for this simulation
4 - Real 10 - Oxygen weight percent of gasoline for simulation
5 - Real 10 - Percent sulfur for gasoline
6 - Real 10 - Percent sulfur for diesel
7 - Real 10 - Percent sulfur for LPG/CNG
8 - Real 10 - Minimum daily temperature (deg. F)
9 - Real 10 - maximum daily temperature (deg. F)
10 - Real 10 - Representative average daily temperature (deg. F)
11 - Char 10 - Flag to determine if region is high altitude
Valid responses are: HIGH and LOW
12 - Char 10 - Flag to determine if RFG adjustments are made
Valid responses are: YES and NO

/OPTIONS/
Title 1 : NC GUILFORD COUNTY (EXCLUDE AIRPORT)
Title 2 : 2021 WINTER
Fuel RVP for gas : 14.5
Oxygen Weight % : 2.62
Gas sulfur % : 0.0030
Diesel sulfur % : 0.0011
Marine Dsl sulfur %: 0.0056
CNG/LPG sulfur % : 0.003
Minimum temper. (F): 30.1
Maximum temper. (F): 49.8
Average temper. (F): 40.0
Altitude of region : LOW
EtOH Blend % Mkt : 78.8
EtOH Vol % : 9.5
/END/

REGION PACKET

This is the packet that defines the region for which
emissions are to be estimated.

The first record tells the type of region and
allocation to perform.

Valid responses are:
US TOTAL - emissions are for entire USA without state breakout.

50STATE - emissions are for all 50 states and Washington D.C., by state.

STATE - emissions are for a select group of states and are state-level estimates

COUNTY - emissions are for a select group of counties and are county level estimates. If necessary, allocation from state to county will be performed.

SUBCOUNTY - emissions are for the specified sub counties and are subcounty level estimates. If necessary, county to subcounty allocation will be performed.

The remaining records define the regions to be included. The type of data which must be specified depends on the region level.

US TOTAL - Nothing needs to be specified. The FIPS code 00000 is used automatically.

50STATE - Nothing needs to be specified. The FIPS code 00000 is used automatically.

STATE - state FIPS codes

COUNTY - state or county FIPS codes. State FIPS code means include all counties in the state.

SUBCOUNTY - county FIPS code and subregion code.

```
-----------------------------------------------------
/REGION/
Region Level       : COUNTY
Guilford County NC : 37081
/END/

or use -
Region Level       : STATE
Michigan           : 26000
-----------------------------------------------------
```

SOURCE CATEGORY PACKET

This packet is used to tell the model which source
categories are to be processed. It is optional.
If used, only those source categories list will
appear in the output data file. If the packet is
not found, the model will process all source
categories in the population files.

```
/SOURCE CATEGORY/
          :2260001000
          :2265001000
          :2267001000
          :2268001000
          :2270001000
          :2260002000
          :2265002000
          :2267002000
          :2268002000
          :2270002000
          :2260003000
          :2265003000
          :2267003000
          :2268003000
          :2270003000
          :2260004000
          :2265004000
          :2267004000
          :2268004000
          :2270004000
          :2260005000
          :2265005000
          :2267005000
          :2268005000
          :2270005000
          :2260006000
          :2265006000
          :2267006000
          :2268006000
          :2270006000
          :2260007000
          :2265007000
          :2267007000
          :2268007000
          :2270007000
```

```
            :2260009000
            :2265009000
            :2267009000
            :2268009000
            :2270009000
            :2260010000
            :2265010000
            :2267010000
            :2268010000
            :2270010000
            :2285000000
            :2282000000
/END/


Diesel Only -
            :2270000000
            :2282020000
            :2285002015
Spark Ignition Only -
            :2260000000
            :2265000000
            :2267000000
            :2268000000
            :2282005010
            :2282005015
            :2282010005
            :2285004015
            :2285006015
-------------------------------------------------------
 This is the packet that lists the names of output files
 and some of the input data files read by the model.  If
 a drive:\path\ is not given, the location of the
 NONROAD.EXE file itself is assumed.  You will probably
 want to change the names of the Output and Message files
 to match that of the OPTion file, e.g., MICH-97.OPT,
 MICH-97.OUT, MICH-97.MSG, and if used MICH-97.AMS.
-------------------------------------------------------
/RUNFILES/
ALLOC XREF        : data\allocate\allocate.xrf
ACTIVITY          : data\activity\activity.dat
EXH TECHNOLOGY    : data\tech\tech-exh.dat
EVP TECHNOLOGY    : data\tech\tech-evp.dat
SEASONALITY       : data\season\season.dat
REGIONS           : data\season\season.dat
MESSAGE           : c:\nonroad\outputs\guwi21ne.msg
```

```
OUTPUT DATA        : c:\nonroad\outputs\guwi21ne.out
EPS2 AMS           :
US COUNTIES FIPS   : data\allocate\fips.dat
RETROFIT           :
/END/

-----------------------------------------------------
This is the packet that defines the equipment population
files read by the model.
-----------------------------------------------------
/POP FILES/
Population File    : c:\nonroad\data\pop\nc.pop
/END/

POPULATION FILE    : c:\nonroad\data\POP\MI.POP


-----------------------------------------------------
This is the packet that defines the growth files
files read by the model.
-----------------------------------------------------
/GROWTH FILES/
National defaults  : data\growth\nation.grw
/END/


/ALLOC FILES/
Air trans. empl.   :c:\nonroad\data\allocate\nc_airtr.alo
Undergrnd coal prod:c:\nonroad\data\allocate\nc_coal.alo
Construction cost  :c:\nonroad\data\allocate\nc_const.alo
Harvested acres    :c:\nonroad\data\allocate\nc_farms.alo
Golf course estab. :c:\nonroad\data\allocate\nc_golf.alo
Wholesale estab.   :c:\nonroad\data\allocate\nc_holsl.alo
Family housing     :c:\nonroad\data\allocate\nc_house.alo
Logging employees  :c:\nonroad\data\allocate\nc_loggn.alo
Landscaping empl.  :c:\nonroad\data\allocate\nc_lscap.alo
Manufacturing empl.:c:\nonroad\data\allocate\nc_mnfg.alo
Oil & gas employees:c:\nonroad\data\allocate\nc_oil.alo
Census population  :c:\nonroad\data\allocate\nc_pop.alo
Allocation File    :c:\nonroad\data\allocate\nc_rail.alo
RV Park establish. :c:\nonroad\data\allocate\nc_rvprk.alo
Snowblowers comm.  :c:\nonroad\data\allocate\nc_sbc.alo
Snowblowers res.   :c:\nonroad\data\allocate\nc_sbr.alo
Snowmobiles        :c:\nonroad\data\allocate\nc_snowm.alo
Rec marine inboard :c:\nonroad\data\allocate\nc_wib.alo
Rec marine outboard:c:\nonroad\data\allocate\nc_wob.alo
```

```
/END/
-----------------------------------------------------
This is the packet that defines the emssions factors
files read by the model.
-----------------------------------------------------
/EMFAC FILES/
THC exhaust        : data\emsfac\exhthc.emf
CO exhaust         : data\emsfac\exhco.emf
NOX exhaust        : data\emsfac\exhnox.emf
PM exhaust         : data\emsfac\exhpm.emf
BSFC               : data\emsfac\bsfc.emf
Crankcase          : data\emsfac\crank.emf
Spillage           : data\emsfac\spillage.emf
Diurnal            : data\emsfac\evdiu.emf
Tank Perm          : data\emsfac\evtank.emf
Non-RM Hose Perm   : data\emsfac\evhose.emf
RM Fill Neck Perm  : data\emsfac\evneck.emf
RM Supply/Return   : data\emsfac\evsupret.emf
RM Vent Perm       : data\emsfac\evvent.emf
Hot Soaks          : data\emsfac\evhotsk.emf
RuningLoss         : data\emsfac\evrunls.emf
/END/

-----------------------------------------------------
This is the packet that defines the deterioration factors
files read by the model.
-----------------------------------------------------
/DETERIORATE FILES/
THC exhaust        : data\detfac\exhthc.det
CO exhaust         : data\detfac\exhco.det
NOX exhaust        : data\detfac\exhnox.det
PM exhaust         : data\detfac\exhpm.det
Diurnal            : data\detfac\evdiu.det
Tank Perm          : data\detfac\evtank.det
Non-RM Hose Perm   : data\detfac\evhose.det
RM Fill Neck Perm  : data\detfac\evneck.det
RM Supply/Return   : data\detfac\evsupret.det
RM Vent Perm       : data\detfac\evvent.det
Hot Soaks          : data\detfac\evhotsk.det
RuningLoss         : data\detfac\evrunls.det
/END/

Optional Packets - Add initial slash "/" to activate

/STAGE II/
Control Factor     : 0.0
```

```
/END/
Enter percent control: 95 = 95% control = 0.05 x uncontrolled
Default should be zero control.

/MODELYEAR OUT/
EXHAUST BMY OUT    :
EVAP BMY OUT       :
/END/

SI REPORT/
SI report file-CSV :OUTPUTS\NRPOLLUT.CSV
/END/

/DAILY FILES/
DAILY TEMPS/RVP    :
/END/

PM Base Sulfur
 cols 1-10: dsl tech type;
 11-20: base sulfur wt%; or '1.0' means no-adjust (cert= in-use)
/PM BASE SULFUR/
T2        0.2000    0.02247
T3        0.2000    0.02247
T3B       0.0500    0.02247
T4A       0.0500    0.02247
T4B       0.0015    0.02247
T4        0.0015    0.30
T4N       0.0015    0.30
/END/
```