REQUEST FOR EVALUATION ASSESSMENT AND REMEDIATION TECHNOLOGIES

NCDEQ Underground Storage Tank Section

When requesting the Innovative Technology Committee to evaluate innovative assessment or remediation technologies, please provide the following information.

A. Technology Description

- 1. The name and a complete description of the technology, including the chemical and physical components of any products used in the technology, and the concentrations of the product constituents to be used.
- 2. The name of the proprietor of the technology with their technical contact's name and phone number.
- 3. If applicable, documentation from authoritative technical references that provides the specific degradation products to be formed as a result of the use of the technology.

B. Example Sites/Case Studies

Provide three (3) case studies. Do not send "data dumps," excerpts from scientific research papers, incomplete case studies, or more than 5 case studies – they will not be reviewed. All case studies should include the following:

- Brief site summary identifying the primary contaminants of concern (COCs), geology/ hydrogeology, depth to groundwater, area and method where the technology/product was applied, and the injection interval, if applicable;
- Site map(s) showing the contaminant plume, locations of monitor wells, application/injection points, and groundwater flow direction;
- Data table showing contaminant concentrations prior to application and post-application in key monitor wells in the treatment area and downgradient. Clearly identify the date(s) the technique/product was applied, sampling dates, and provide at least one year of post-application monitoring data;
- If the product/technology is effective for a large range of contaminant concentrations, include examples with low, moderate, and high contaminant concentrations to illustrate that capability;
- Potential risks/problems associated with the use of the technology, and key monitoring parameters to assess those risks, if needed.

C. Site Information if part of a proposed Corrective Action Plan

- 1. The name and address of the site where the technology is proposed to be used.
- 2. The name and phone number of the responsible party.
- 3. The name of the contractor/consultant proposing to use the technology, and the name and phone number of the technical contact.
- 4. A report or site summary that describes the suitability of the technology for the site. Describe the incident, the nature and extent of the contamination, how the technology will be used at the site, and the site hydrogeochemical conditions that will enable the ITC to evaluate the suitability of the technology. Include hydrogeologic cross-sections, historical and recent laboratory data with the contaminants of concern, geochemical parameters, and a Comprehensive Site Assessment report, if available.
- 5. The proposed schedule for implementing the technology at the site (startup date/duration).
- 6. The proposed monitoring plan and schedule that identifies the parameters that will be monitored to evaluate the effectiveness of the technology.

D. Economic Analysis

- 1. The estimated cost to implement the technology at the specified site (include costs to install injection/monitoring points, equipment, etc.).
- 2. A cost comparison of this technology and alternative technologies.
- 3. The cost per cubic yard to cleanup contaminated soil (where appropriate).