

## **Section I – Overview**

### **A. What the Land Recycling Program Has to Offer**

- 1. Benefits of Involvement through the Land Recycling Program**
- 2. How to Use this Manual**

### **B. The Voluntary Nature of Act 2**

### **C. Improving Service through Program Consistency**

- 1. DEP Central Office Program to Approve Initiation and Final Execution of Remediation Agreements**
- 2. DEP Central Office Program to Approve Initiation and Final Execution of Enforcement Actions**
- 3. DEP Central Office Program to Approve Initiation and Final Execution of Reopeners**
- 4. DEP Central Office Program to be Consulted on Non-Routine Waivers**
- 5. Issue Resolution**
- 6. FAQ Posted on Website**

### **D. Resources and Assistance**

- 1. Program Contacts**
- 2. Financial Assistance**

## **Section II – Act 2 Remediation Process**

### **A. Applying Land Recycling to Your Property**

- 1. Classifying Your Site and Considering Options for Remediation**
- 2. Immediate Response**
- 3. Notice Requirements and Procedures**
- 4. Site Characterization**

### **B. Remediation Standards**

1. **Background Standard**
  - a. Introduction*
  - b. Process Checklist for the Background Standard*
  - c. Point of Compliance (POC) for the Background Standard*
  - d. Establishing Background Concentrations*
  - e. Final Report Requirements for the Background Standard*
2. **Statewide Health Standard**
  - a. Introduction*
  - b. Process Checklist for Remediations under the Statewide Health Standard*
  - c. Selection of MSCs*
  - d. Nonuse Aquifer Determinations*
  - e. Ecological Screening*
  - f. Final Report Requirements for the Statewide Health Standard*
  - g. References*
3. **Site-Specific Standard**
  - a. Introduction*
  - b. Process Checklist for the Site-Specific Standard*
  - c. Site Investigation*
  - d. Risk Assessment and Development of Site-Specific Standards*
  - e. Cleanup Plan*
  - f. Remediation and Demonstration of Attainment*
  - g. General Report Guidelines for the Site-Specific Standard*
  - h. Detailed Report Requirements for the Site-Specific Standard*
4. **Special Industrial Areas**
  - a. Introduction*
  - b. Eligibility Determination*

*c. Process Checklist for Special Industrial Area*

*d. Aspects of Special Industrial Area*

*e. Work Plan for Baseline Remedial Investigation and Baseline Environmental Report*

## **Section III – Technical and Procedural Guidance**

### **A. Fate and Transport Analysis**

- 1. Fate and Transport Analysis in the Unsaturated Zone**
- 2. Fate and Transport in the Saturated Zone**
- 3. Impacts to Surface Water from Diffuse Flow of Contaminated Groundwater**

### **B. Guidance for Attainment with Statistical Methods**

- 1. Introduction**
- 2. Data Quality Objective Process, Sampling, and Data Quality Assessment Process**
- 3. Preliminary Data Review**
- 4. Statistical Inference and Hypothesis Statements**
- 5. Selection of Statistical Methods**
- 6. Additional Information on Statistical Procedures**
- 7. Calculation of UCL of Mean when the Distribution of the Sampling Mean is Normal**
- 8. Calculation of UCL of Mean of a Lognormal Distribution**
- 9. Procedure and Example for Conducting the Wilcoxon Rank Sum Test**
- 10. Procedure and Example for Conducting the Quantile Test**

### **C. Mass Calculations**

- 1. Groundwater Mass Calculation**
- 2. Soil Mass Calculation**

### **D. Long Term Stewardship**

1. Introduction
2. Uniform Environmental Covenants Act
3. Institutional Versus Engineering Controls
4. Postremediation Care Plan
5. Postremediation Monitoring
6. Postremediation Care Attainment

#### **E. One Cleanup Program**

#### **F. Practical Quantitation Limits**

#### **G. Site-Specific Human Health Risk Assessment Guidance**

1. Introduction
2. Risk Assessment for Human Health

#### **H. Site-Specific Ecological Risk Assessment Guidance**

### **Section IV – Vapor Intrusion Guidance**

### **Section V – Relationship to Other Environmental Statutes**

#### **A. Solid Waste Facilities**

1. Movement of Excavated Contaminated Media and Other Solids
2. Disposal Prior to September 7, 1980
3. Disposal after September 7, 1980, for Residual Waste and Construction/Demolition Waste, and Between September 7, 1980 and October 9, 1993 for Municipal Waste
4. Disposal of Hazardous Waste after September 7, 1980, or Municipal Waste after October 9, 1993 Subject to Federal Closure Requirements
5. Management of Fill Policy

#### **B. Clean Streams Law Interface**

1. Point Source Discharges

**2. Nonpoint Source Discharges**

**3. Erosion and Sedimentation Control**

**C. Clean Air Act and Air Pollution Control Act Interface**

**D. Regulated Storage Tank Release Sites**

**1. Short List of Petroleum Products**

**2. Management of Separate Phase Liquids Under Act 32**

**E. HSCA/CERCLA Remediation**

**1. Hazardous Sites Cleanup Act (HSCA) Sites**

**2. CERCLA Sites**

**Section VI – Related Documents of Interest**

**A. Land Recycling and Environmental Remediation Standards Act (Act 2)**

**B. Land Recycling Regulations**

Other documents of interest to be determined as revision of TGM continues, including Program Clarification memos