

Soil Pollution Assessment and Inspection System of Enterprise Land

1、Introduction

Because of the soil pollution problem of enterprise lands become serious, Environmental Protection Administration (hereafter referred to as EPA) sets up a mechanism to find soil pollution as soon as possible. Article 8 of Soil and Groundwater Pollution Remediation Act(hereafter referred to as SGPR, announced on 2000/02/02) appoints “The transferer of land used by enterprises designated and officially announced by the central competent authority shall provide soil pollution inspection data” and Article 9 appoints “Prior to the establishment, or the suspension business or termination of business, enterprises designated and officially announced by the central competent authority shall submit to the competent authorities with local jurisdiction for reference the soil pollution inspection information of used land or land to be used before such enterprise may file relevant applications with the industry competent authority” .

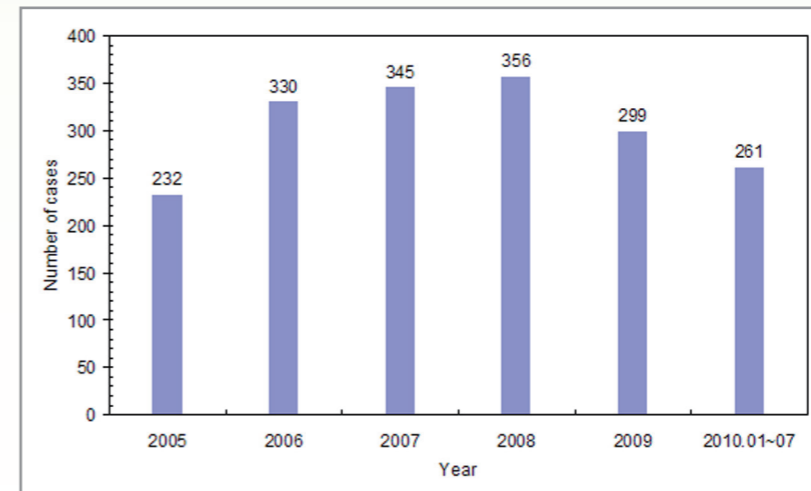
EPA announced 18 categories (Batch I) of enterprises, and they need to observe Article 8 and Article 9 of SGPR on and after 2005/01/01. Then, EPA amended 18 categories of to 17 categories in 2007. In 2009, 13 categories (Batch II) of enterprises were announced by EPA, and they need to observe Article 8 and Article 9 of SGPR on and after 2010/01/01. Now, there are 30 categories of enterprises announced by EPA (Table), and Article 8 and Article 9 of SGPR also become the most familiar articles of soil and groundwater pollution prevention and remediation to people.

According to the amendment of SGPR, Article 8 claims before land is transferred, the assessment and inspection information must be submitted for reference, and penalties for violations were specified. Article 9 also claims before the enterprises are founded, changed, suspended etc, assessment and inspection information must be submitted for review. EPA expects soil pollution assessment and inspection system of enterprise land to be more perfect after Article 8 and Article 9 of SGPR amended.

Item	Enterprise Classification		Executive Date
	Manufacturing Area Greater Than or Equal to 100 m ²	Non-manufacturing No Area Limited	
Batch I 17 categories	1. Leather, Fur Finishing 2. Petroleum and Coal Products Manufacturing 3. Basic Chemical Material Manufacturing 4. Petrochemicals Manufacturing 5. Synthetic Resin and Plastic Materials Manufacturing 6. Synthetic Rubber Manufacturing 7. Man-made Fibers Manufacturing 8. Pesticides and Herbicides Manufacturing 9. Plastic Sheets, Pipes and Tubes Manufacturing 10. Iron and Steel Smelting 11. Metal Surface Treating 12. Semi-conductors Manufacturing 13. Bare Printed Circuit Boards Manufacturing 14. Batteries Manufacturing	1. Electric Power Supply (Thermal power plant) 2. Gasoline Station 3. Waste Treatment and Disposal	Applicable on and after 2005/01/01
Batch II 13 categories	1. Lumbering [Process including wood drying, soaking and anticorrosion] 2. Fertilizers Manufacturing [Chemical fertilizers manufacturing] 3. Coatings, Dyes and Pigments Manufacturing 4. Iron and Steel Casting 5. Aluminum Smelting 6. Aluminum Casting 7. Copper Smelting 8. Copper Casting 9. Metal Heat Treating 10. Electronic Passive Devices Manufacturing 11. Optoelectronic Materials and Components Manufacturing	1. Materials Recovery and Waste Collection [Organizations do waste oil collection, lubricating oil recovery, discarded motor vehicle recovery, and dismantling, and set up storage site or transfer station] 2. Storage and Conveyance Facility of Oil Industry	Applicable on and after 2010/01/01

▲ Table : Enterprises of Articles 8 and 9 of SGPR

- In order to remind enterprises to comply with the laws and regulations, EPA began to audit the reported and un-reported companies from 2005. Among the reported and un-reported companies, initial checked 390 publicly designated industrial land sites , inspected 158 sites, and conducted soil sampling and verification of 88 sites of them. The problems found between audit process will be offered to the plan and amendment of the soil pollution assessment and inspection system.
- According to Articles 8 and 9 of SGPR, EPA evaluated and amended Laws and Regulations(e.g., “The Guideline of Reference Process of Soil Pollution Inspection Information” , “Environmental Site Assessment Procedure” and “Grid Procedure” , etc.). Owing to SGPR amended on 2010/02/03 recently, EPA continually amend and draft related Laws and Regulations again, for example:
- Regulations Governing the Management of Soil Pollution Assessment and Investigation personnel(Draft)
- Regulations Governing the Report and Review of Soil Pollution Assessment Investigation and Test Data(Draft)
- Fee-charging Standards for Soil Pollution Assessment Investigation and Test Data Review(Draft)



▲ Figure : Number of cases reported to EPA

2、Objectives

To promote the soil pollution assessment and inspection system, EPA wants to:

- Consider the risk and control the enterprises that have high soil and groundwater pollution potential. Let enterprises and land owners pay more attention to the soil pollution problems of lands.
- Set up the system of Environment Professional and train soil pollution assessment and investigation personnel to be the foundation of soil and groundwater pollution prevention and remediation.
- Set up the rules of soil pollution assessment and inspection, and enhance the quality and representativeness of the execution.
- By the transportation of assessment and inspection information, it could protect the buyers and sellers of the lands transactions, and be helpful to clarify the responsibility of pollution remediation.
- Enhance people know SGPR, and they could know how to protect lands.
- Set up the database of landuse records and soil qualities. It will be useful to promote the soil pollution assessment and inspection system, control those enterprises that have high pollution potential, and trace the potential sources of pollution.
- Combine related database of all organizations and share the information. It will be very useful to connect enterprise management

3、Results

- EPA announced 30 categories of the enterprises concerned. There are 17 categories of enterprises in Batch I, and 13 categories in Batch II.
- There are over 1,800 cases of the soil pollution inspection reported to the EPA from 2005/01/01 to 2010/07/31(Figure). The total area of inspection is over 19,470,000 m². Among the reported cases, there are 98 cases(5.4%) that inspection concentrations of pollutants exceed those in soil pollution monitoring standards or control standards.

4、Prospects

in the future, EPA will continue to promote the soil pollution assessment and inspection system, and expect to: (A) set up environmental professional and trainings to enhance the quality of execution; (B) Integrate related plans and databases, manage the enterprises with high pollution potential completely; (C) Combined business administration and land registration, and set up the records and background of lands. EPA wants everyone could pay more attention to our lands, and “Prevention is better than “Remediation” ” !!

