

Thailand country report on recent development and future needs of soil and groundwater pollution

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Ministry of Industry announced its Decree on Soil and Groundwater Contamination Control within Factory Area on the government gazette on April 29th 2016. The regulation was made by National Environmental Committee's resolution regarding soil and groundwater contamination in industrial area. This regulation required certain type of factories to conduct soil and groundwater monitoring regularly and report if there is any contamination within the area. The announcement significant points can be summarized as followed,

1. The announcement gives definitions of "carcinogenic substance", "non-carcinogenic substance", and "soil and groundwater contaminants"
2. The announcement set up reference risk level for calculation of control level of 10⁻⁶ for "carcinogenic substance" and of 1.0 for "non-carcinogenic substance".
3. The announcement required such factories controlled by this announcement to
 - a. compile a list of chemicals handled by factory
 - b. compile a hazardous classification of chemical handled by factory
 - c. ranking such chemical according to need for control
 - d. soil and groundwater sampling locations
 - e. calculate control level for "carcinogenic substance" and "non-carcinogenic substance".
 - f. Submit all above information to Department of Industrial Works, Ministry of Industry. or Provincial Industrial Office within 180 days after this announcement is effective or whenever there is a change in chemical handled using form given in 3rd appendix
4. Reference risk levels are used to calculate control level for each substance with guide given in 2nd appendix.
5. Factory must submit report comparing soil and groundwater sampling result and control level for each substance handled using form given in 4th appendix.
6. In case of exceeding control level, factory much compile a report with control and remediation measures using form given in 5th appendix.
7. Approval methods of soil and groundwater sampling are referring to international standard or US.EPA. method.
8. In case that such factory does not have any chemical and activity that cause soil and groundwater contamination may submit a formal letter asking for exemption of this announcement to Department of Industrial Works or Provincial Industrial Office.
9. All existing monitoring wells, no matter inside or outside factory area, can be used for report under this announcement without constructing any new monitoring wells.

Some 4 years has passed and most of the industry covered by this regulation mostly feel that the parameters and limit under the regulation should be improve. However; the recent improvement to the regulation is that the report can be submitted electronically in the future. Some guidelines are made on good practice on soil and groundwater pollution for each type of factory and how to investigate when found contamination. Another complaint to this regulation is that for some of the parameters, there is a limited number of laboratories that can analyze.

Pollution Control Department is looking for expand similar requirement for gas stations.