Early-Warning Lights Classification Management System for Industrial Parks in Taiwan

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Abstract : This paper presents the early-warning lights classification management system for industrial parks promoted by the Taiwan Environmental Protection Administration (EPA) since 2011, including the definition of each early-warning light, objectives, action program and accomplishments. All of the 151 industrial parks in Taiwan were classified into four early-warning lights, including red, orange, yellow and green, for carrying out respective pollution management according to the monitoring data of soil and groundwater quality, regulatory compliance, and regulatory listing of control site or remediation site. The Taiwan EPA set up a priority list for high potential polluted industrial parks and investigated their soil and groundwater qualities based on the results of the light classification and pollution potential assessment. In 2011-2013, there were 44 industrial parks selected and carried out different investigation, such as the early warning groundwater well networks establishment and pollution investigation/verification for the red and orange-light industrial parks and the environmental background survey for the yellow-light industrial parks. Among them, 22 industrial parks were newly or continuously confirmed that the concentrations of pollutants exceeded those in soil or groundwater pollution control standards. Thus, the further investigation, groundwater use restriction, listing of pollution control site or remediation site, and pollutant isolation measures were implemented by the local environmental protection and industry competent authorities; the early warning lights of those industrial parks were proposed to adjust up to orange or red-light. Up to the present, the preliminary positive effect of the soil and groundwater quality management system for industrial parks has been noticed in several aspects, such as environmental background information collection, early warning of pollution risk, pollution investigation and control, information integration and application, and inter-agency collaboration. Finally, the work and goal of self-initiated quality management of industrial parks will be carried out on the basis of the inter-agency collaboration by the classified lights system of early warning and management as well as the regular announcement of the status of each industrial park.

Keywords : industrial park, soil and groundwater quality management, early-warning lights classification, SOP for reporting and treatment of monitored abnormal events