

Support for Water Pollution Monitoring, Prevention, and Accident Control

1. Purpose

- To foster safe water environment by providing support for water pollution monitoring and efficient/rapid control in case of an accident, in preparation for accidents that may damage the quality of public waters and the ecosystem
 - Build a preemptive monitoring system using the national water-quality measuring network, water quality TMS, IP/USN, etc.
 - Need to set up an organization dedicated to supporting water pollution monitoring, prevention, and accident control

2. Relevant Laws

- Article 16-3 (Operation of Water Pollution Accident Control Center) Water Pollution, Water Quality, and Ecosystem Conservation Act
- Article 16-4 (Construction and Operation of Water Pollution Accident Control Information System) Water Pollution, Water Quality, and Ecosystem Conservation Act

3. History

- President's comment on the smooth operation of preemptive crisis management works (BH)
 - January 14, 2009
- The masterplan announced for the 4 Major Rivers' Restoration Project (Ministry of Land, Transport and Maritime Affairs)
 - June 8, 2009
- The framework plan for the establishment of a comprehensive water pollution accident control center (Ministry of Environment)
 - June 26, 2009
- The comprehensive water pollution accident control center was established.
 - October 28, 2009, Riverside Sports Park, Gongdan-dong, Gumi-si
- Established the water pollution accident monitoring and control plan for the 4 Major Rivers' Restoration Project

- November 9, 2009
- Refined the organization and staff for water pollution accident monitoring and control
 - Headquarter (Water Pollution Accident Control Center) and regional offices (Water Quality Control Team)
 - January 1, 2010
- The framework plan for the establishment of a comprehensive water pollution accident control center (Ministry of Environment)
 - January 8, 2013

4. Functions and Roles

- Prevention, monitoring, and control of water pollution accidents in public waters
- Provides timely notification of the situation and accident control support in case of an accident

5. Major Functions

- Monitors and prevents water pollution
 - Prevents water pollution accident in public waters and performs accident control activities
 - Provides timely notification of the situation and accident control support in case of an accident
- Provides training on water pollution accident control technologies
 - Provides training on accident control technologies for the relevant staffs of local governments and other related agencies in charge of public waters
 - Publishes training materials on water pollution accident control technologies
- Provides full-time monitoring and manpower for water pollution accidents
 - Provides manpower for water quality monitoring at the 4 Major Rivers' Restoration Project sites
 - Provides accident control equipment and manpower in case of a water pollution accident

6. Mobile Water-Quality Measuring Device based on IP-USN

- Purpose
 - Water quality monitoring, forecasting, and tide monitoring (for areas with strong tidal current)
- Operation
 - Measurement Items: Water temperature, dissolved oxygen, hydrogen ion concentration, electric

conductivity, turbidity, chlorophyll a

- Features
 - Mobile measuring devices offer easy relocation, depending on the purpose of operation.
 - Reduces operation costs by using power generated through solar charging
- System Chart



7. Expected Effects

- Minimize damage caused by water pollution accidents by setting up a consistent response system ranging from water pollution accident monitoring to accident control support.
- Advance the accident control support system through comprehensive water pollution monitoring and establishment/operation of accident control support system, based on location information.

Source: Korea Environment Corporation (<https://www.keco.or.kr>).