Hawaii Department of Health and City & County of Honolulu sign agreement on wastewater spill prevention measures

HONOLULU – The Hawaii State Department of Health (DOH) and the City & County of Honolulu have signed an agreement to add measures to reduce and prevent wastewater spills caused by storm water illegally entering the City’s collection system in high density urban areas. An Administrative Order on Consent (AOC) was agreed to by both parties in response to wastewater spills that occurred on Aug. 24, 2015 in violation of Hawaii’s National Pollutant Discharge Elimination System (NPDES) permit program under Section 402 of the federal Clean Water Act. During the 2015 events, a total of approximately 592,000 gallons of sewage was discharged into state waters and impaired water quality for nearly six days.

The agreement includes a penalty fee of $100,000 assessed by DOH against the City for the August 2015 sewage discharges that occurred at Atkinson Drive and the Kailua Wastewater Treatment Plant, and requires specific corrective actions that address the cause of those spills. If the City does not comply with AOC schedules for completion, DOH may issue stipulated penalties of $500 per day for delays.

“At this time, the department believes this is the best course forward to improve prevention measures and reduce the chance for future wastewater spills on Oahu,” said Keith Kawaoka, deputy director of the Environmental Health Administration. “Our staff did excellent work in developing an agreement that protects Hawaii’s environment with actionable measures that both parties could agree to.”

City to Conduct Study of Storm Water Inflow

With the signing of the AOC, the City agrees to prepare a work plan for the detection, identification and quantification of significant sources of storm water inflow to the City’s sewage collection system. The work plan will provide a foundation for establishing effective prevention measures, since the major cause of the sewage spill at Atkinson Drive was due to storm water inundating the sewage collection system during a severe rain event. The work plan will be completed by the City and reviewed by DOH in eight months. The City agrees to complete the study within one year of the approved work plan.
Improvements to SCADA Operations and Technology

The City has also agreed to revise its operating procedures for its SCADA (Supervisory Control and Data Acquisition) system and improve its response to critical spill prevention alarms within two months. This action will specifically address one of the reasons the sewage spill volume was high during the incident at Atkinson Drive. During that event, SCADA operators failed to appropriately respond to high wet well level alarms, causing the spill to continue and increase.

The City will also complete technology upgrades to its entire SCADA system within one year to improve operation and control of the City’s sewage collection system and reduce the potential for future sewage spills. The upgrade includes improved visualization and control software for the City’s SCADA Operations Control Center and dissemination of mobile devices to collection system maintenance personnel. This is expected to improve the responsiveness, efficiency and effectiveness of City staff.

Deputy Director Keith Kawaoka said, “This modernization of the City’s SCADA system will improve operation and control of the City sewage collection system and ensure future spills will not go on unabated due to SCADA technology.”

Revised Sewage Spill Volume Estimate Procedures

The City also agreed to develop a revised method within one month for estimating the volume of Sanitary Sewer Outflows (SSO) as part of its sewage spill response procedures. This will improve the accuracy of reporting and explain any differences in the initial spill volume that’s reported as well as the final estimated spill volume.

Past Events Leading to the Enforcement Order

On August 24, 2015, approximately 462,050 gallons of a mixture of untreated sewage and rainwater overflowed from seven sewer manholes located in the Ala Moana/Kakaako area of Honolulu. The wastewater entered nearby storm drains or drainage channels before discharging into either the Ala Wai Small Boat Harbor or Kewalo Basin Small Boat Harbor. On the same day, approximately 4,950 gallons of untreated wastewater overflowed from a manhole at the Kaneohe Pre-Treatment Facility to Kawa Stream, and approximately 125,000 gallons of partially treated secondary wastewater overflowed from the Kailua Regional Wastewater Treatment Plant to Nuupia Pond. Each incident was caused by an earlier than expected intense rain event causing the inflow of a large volume of storm water, combined with operational issues. A copy of the incident report is available.

Department of Health Clean Water Branch

The Agreement on Consent was developed by the staff of the Clean Water Branch which protects the health of residents and visitors who enjoy Hawaii’s coastal and inland water resources. The Branch also protects and restores inland and coastal waters for marine life and wildlife. This is accomplished through statewide coastal water surveillance and watershed-based environmental management using a combination of permit issuance, water quality monitoring and investigation, water quality violation enforcement, polluted runoff control, and public education.

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