



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

West Section

West Point Treatment Plant
1400 Discovery Park Blvd
Seattle, WA 98199-1004
206-263-3800 Fax 206-263-3850
TTY Relay: 711

June 27, 2018

Shawn McKone
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Re: West Point Treatment Plant, June 21, 2018 Secondary Diversion

Dear Mr. McKone:

On Thursday morning, June 21, an estimated 0.1 million gallons (MG) of primary-treated flow was diverted around the secondary process at West Point Treatment Plant. The secondary diversion was reported to the Department of Ecology, and was assigned incident Number 682103.

At approximately 5:17 a.m., there was a failure of one of the plant's uninterruptable power supplies (UPS). This caused the UPS to lose all of its powered loads, including the controls that activate the emergency open solenoid at the Flow Diversion Structure (FDS). Upon the loss of UPS power, the CSO gates actuated and fully opened as designed.

In response, Main Control immediately dispatched staff to the local control panel to manually close the gates, and the gates were closed by 5:23 a.m. At the time, plant flow was approximately 49 million gallons per day (MGD). Notably, although the gates had opened, the Intermediate Pump Station (IPS) continued to operate minimizing the amount of flow being diverted when the gates were open.

No flow bypassed the treatment plant.

After the incident, a thorough investigation was conducted by plant engineering, plant technicians and Emerson Technical Support. The investigation revealed the DCS controllers had performed as expected and an internal failure of the UPS was determined to be the root cause of the gates opening.

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In tests conducted after the event, power was turned off to the UPS, and the UPS transferred the load to its battery back-up, as designed. In a subsequent test, the batteries were disabled before power was turned off, and staff were able to replicate the gate opening.

Staff believe the UPS fault lies within its internal circuitry and a replacement UPS will be installed. Unfortunately, these are not off-the-shelf items given their size, however an order for a replacement unit has been expedited.

The 0.1 MG of diverted primary-treated flow was blended with secondary-treated flow, and the combined flow continued to receive disinfection. A total of 67.75 MGD of wastewater received treatment on June 21, and effluent quality was not measurably impacted. The effluent suspended solids composite sample concentration was 13 mg/L.

If you have additional questions concerning this event, please contact me at 206-263-9481 or Eugene Sugita at 206-477-9782.

Sincerely,



Robert Waddle
Operations & Maintenance Manager

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

cc: Amy Jankowiak, Compliance Specialist, Department of Ecology
Mark Isaacson, Division Director, Wastewater Treatment Division (WTD),
Department of Natural Resources and Parks (DNRP)
Jeff Lafer, Project/Program Manager IV, WTD, DNRP
Al Williamson, West Section Assistant Manager, WTD, DNRP
Tom Bauer, West Section Acting Assistant Manager, WTD, DNRP