

NPDES COMPLIANCE INSPECTION REPORT

Comments

A partial inspection was conducted by the clean water program today (01/09/2019) at 12:00. In attendance from DEP were Austen Randecker, Heather Dock, and Ashley Chong. We were met on site by Rod Weitkamp (Operations Supervisor) who accompanied us on the inspection and walked us through the treatment processes.

The inspection began with an assessment of Outfall 001 to Kreutz Creek. At 12:30 the outfall was observed actively discharging dark brown effluent to Kreutz Creek. Upstream of Outfall 001 Kreutz Creek appeared clear. Downstream of Outfall 001 there was a distinguishable line between the discharging effluent, and Kreutz Creek. Mixing was slightly occurring downstream, and the stream had a slight tea colored tint. Daily permit parameters were taken at the Outfall as well as in Kreutz Creek Upstream Outfall 001. Lab samples were collected at Outfall 001, Kreutz Creek 10 meters upstream of Outfall 001, and Kreutz Creek downstream of Outfall 001 @ E Prospect Road bridge. Algae was observed upstream and downstream of Outfall 001. The algae was a light brown color and covered about 75% of the streambed from bank to bank. A sample of the algae was collected and sent to the lab for identification.

Field Sample Results Yielded:

Outfall 001 @ 12:30: pH: 8.13 S.U., D.O.: 7.77 mg/L, Temp: 19.8 Celsius, and TRC: 0.04 mg/L

Kreutz Creek 10 meters upstream Outfall 001 @ 12:50: pH: 8.47 S.U., D.O.: 11.91 mg/L and Temp: 6.9 Celsius

An inspection of the WWTP was conducted after the inspection of the outfall. Leachate is sent to the treatment plant with the aid of 8 pump stations to an EQ tank that is mixed, online and mixing during inspection, and then fed to a tank that controls the pH level of the raw leachate. There are plate settlers for heavy metal reduction. From the plate settlers forward flow is fed to a splitter box to divert flow to 2 anoxic tanks, both online during inspection. Forward flow is sent to another splitter box that diverts flow to two (2) aeration tanks. Both aeration tanks were online during inspection and were both being aerated. Aeration tank 1 appeared to have a medium brown color, with a layer of tan foam that covered about 95% of the surface and had about 3 feet of freeboard. Aeration tank 2 appeared to have a medium brown color, with a layer of tan foam that covered about 80% of the surface and had about 4 feet of freeboard. Aeration tank 2 readout: pH: 7.33 S.U., Temp: 93.2 degrees F, and D.O.: 2.68 ppm. The WAS from the aeration tanks is fed into a sludge holding tank, online during inspection, that was covered in a dark tan foam. Sludge from the sludge holding tank is fed to a sludge press. The de-watered sludge from the press is sent to the landfill for disposal.

After the activated sludge process, flow is pumped to an MBR for final treatment. The MBR is backwashed on a monthly basis with city water. The backwash water is sent to the EQ tank. From the MBR the flow is mixed with groundwater. The mixed effluent is then sent to 1 of 2 VOC stripping towers before being discharged to Kreutz Creek at Outfall 001. One VOC stripping tower was offline for routine maintenance.

Recommendations

-The Department strongly recommends adopting and maintaining a temperature monitoring system be put in place for leachate treatment effluent. This recommendation includes monitoring temperature of the effluent at Outfall 001 daily as well as monitoring Kreutz Creek in-stream temperature upstream of Outfall 001 and 100 ft downstream of Outfall 001 daily.