

SunOpta

Omak, Washington

Waste Water System Operation and Maintenance Manual

Operation and Maintenance Manual
SunOpta
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State of Washington
Department of Ecology
State Waste Discharge Permit Number ST0009253

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The process wastewater system operation and maintenance at the SunOpta facility in Omak, Washington will be handled in the following manner.

Description of System

Process wastewater is collected throughout the facility by means of a floor gutter and drain system. The drain system flows to one of two collection points; a sump and pump located in the Main Line process area, or a sump and pump system located by the steam generator area. The Main Line sump discharges to the sump and pump by the steam generator where this pump transfers the wastewater to buffer tanks located in the steam generator room. The buffer tanks remove large solids and aid in dampening system surges. The buffer tanks gravity feed to the wastewater lift station.

Sanitary sewer from the facility restrooms and wash facilities discharges to an in-ground septic style solids separation tank. The liquid outflow of this tank mixes with process wastewater in the lift station. The lift station proceeds to transfer the wastewater through a magnetic flow meter to the City of Omak POTW.

Wastewater sampling is done at the lift station via a refrigerated sampler.

The SunOpta wastewater system is designed to provide minimum solids removal (buffer tanks) and transfer any wastewater to the City of Omak POTW for any necessary treatment.

See Drawing P-1, Waste Water PID, for a depiction of flow and system components.

Operational Objectives

The process waste system is designed to remove minimal solids from the process waste stream before it is transferred to the City of Omak POTW. No provisions are in place to change pH, lower BOD or TSS. By nature of the product that is produced at the SunOpta Omak plant pH adjustment is not necessary in order to fall within the established permit limits for pH. Any solids that are collected in the buffer tanks are removed at least once every 2 months (solids are removed via licensed waste hauler). The sanitary sewer tank is inspected every 6 months and solids removed as necessary.

Detailed Operation

Sump pumps. The sump pumps located in the Main Line and steam generator areas are operated off level floats. A failure of one or both pumps will not impact the discharge quality of wastewater going to the City of Omak. Any failure will be evident by excess water being present in the facility process waste floor gutter system.

Buffer Tanks. These tanks are maintenance free other than periodic pumping of accumulated solids. The first tank has a float installed to override the float system on the sump pump located by the steam generator room. If the level is too high in the first tank, then the sump pump will not be allowed to operate until the level goes down. This arrangement ensures that the first tank does not overflow onto the steam generator room floor.

Lift Station. The lift station collects effluent from the sanitary solids tank along with discharge from the second buffer tank. The lift station pump is controlled via a float system located in the lift station pump tank. The check valve on the discharge of the pump is changed once per year to insure proper operation of pump system. A failure of the pump system will not impact the quality of wastewater going to the City of Omak.

Sampler. A refrigerated wastewater sampler is located at the lift station. This sampler is programmed to pull a sample every hour for a 24-hour period. The City of Omak will initiate the sample sequence and pull the sample bottle after the sample sequence has ended. The City of Omak runs the appropriate tests on the wastewater per the permit specifications. The sampler pump tube is replaced according to the manufacturer's recommendations.

Sanitary Sewer Solids Tank. The sanitary sewer solids tank is inspected every 6 months and solids removed as necessary.

Magnetic Flow Meter. The magnetic flow meter located on the discharge pipe of the lift station has the calibration checked once per year according to the permit requirements.

Startup, Shutdown, Emergency Procedures

The system pumps and equipment are normally left operational since all pumps function only, when necessary, via floats. During a power failure no additional actions are necessary for the wastewater system; if a part of the system is non-functioning after restoration of power it will be evident due to accumulation of process wastewater inside the plant. Reference the SunOpta Spill Control Plan for actions to take if a spill has occurred within the plant.

Wastewater Sampling

Wastewater samples are taken and tested for BOD and TSS by the City of Omak, and results are reported to the plant for recording on the DMR. Discharge flow rates are recorded daily by SunOpta personnel. Wastewater samples are taken daily and tested for pH by SunOpta personnel. All readings for flow and pH are recorded on the DMR form and submitted monthly to Department of Ecology.

Maintenance Schedule

Due to the benign nature of any equipment failure (other than that dictated by the permit or other regulatory requirements) pumps, floats, piping, etc. are replaced/repaired as needed.

Safety

All work performed on the wastewater system conforms to the requirements of applicable regulatory requirements. Some of the requirements include Lock Out Tag Out, Hot Work, etc.

Spare Parts

A spare pump and floats are maintained onsite in case of failure. The same pump is utilized for the lift station and sump pumps in the plant. Replacement equipment is purchased from applicable suppliers as the need arises.

Appendix A

Industrial User Contract

 ORIGINAL

CITY OF OMAK
INDUSTRIAL WASTEWATER USER CONTRACT
SunOpta Fruit Group
May 16, 2011

 CC 5/16/11

4. Prohibited Discharges:

- 4.1 SunOpta shall not cause or permit the release or discharge of the following pollutants to the City's wastewater system:
- A. Pollutants that create a fire or explosion hazard in the City's wastewater system, including, but not limited to, discharges with a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using the test method specified in 40 CFR 261.21;
 - B. Pollutants which will cause corrosive structural damage to the wastewater system, but in no cases discharges with a pH lower than 5.0 or greater than 11.0;
 - C. Solid or viscous pollutants in amounts that obstruct the flow in the wastewater system;

Appendix B

Waste Water PID

