

FOG Receiving Station



This fact sheet has been created to provide information on and address common questions about the **Fats, Oils, and Grease (FOG) Receiving Station** that is being incorporated into the proposed upgrades to the Franklin WRF biosolids facility.

Purpose and Benefits of Process

Restaurants in the City of Franklin have grease traps to capture fats, oils and greases in the wastewater to keep it from being discharged into the sewage collection system where it could cause significant problems. Vacuum truck operators periodically pump the FOG out of the restaurant grease traps and then bring the FOG to the treatment facility for treatment with the sludge. The FOG will be added to the sludge prior to thermal hydrolysis and anaerobic digestion. This practice will result in generation of greater quantities of methane, which will result in generation of additional heat and power, which will reduce the amount of power and natural gas that must be purchased for the treatment plant.

Description of Process

The FOG receiving station will consist of two enclosed concrete FOG receiving boxes, a dumpster and two storage tanks. The receiving boxes will have bar racks for screening the FOG and the dumpster for the screenings will sit between the two receiving boxes in an enclosed concrete structure. These receiving boxes and the dumpster structure will adjoin each other and will in total be about 6 feet high, 11 feet wide and 21 feet long. FOG will drop out of the receiving boxes into two below grade storage tanks.

FOG will be delivered to the receiving station by vacuum trucks. The vacuum trucks will connect their hoses up to pipes on the receiving boxes and then pump the contents of the trucks to the receiving boxes.

What process modifications will be made?

The FOG receiving station will be an addition to the site rather than a modification of existing structure or systems. The entire existing biosolids system at the Franklin WRF is past its useful life and is being replaced with the proposed new biosolids process, which includes the FOG Receiving Station.

Is the process a potential odor source? Is the process odor controlled?

The FOG has the potential to generate odors, therefore the FOG tanks, the receiving boxes and the dumpster enclosure will all be odor controlled by pulling air from the structures and then treating the air in an odor control system.

Does the process include equipment that has the potential to create noise?

If so, is there any noise control provided?

The FOG receiving station has pumps for mixing of the storage tanks and for conveying the FOG to the thermal hydrolysis system. All of the pumps are in the adjacent digester building, so there is no equipment outside. Therefore, any noise generated by the pumps will not be heard at the property lines.

Will the process modification change the look and feel of the site?

Because of the low height and small size of the proposed FOG receiving station, along with its location on the site, it will blend in with the other larger structures.

Will the process modification change the safety of the site?

The FOG Receiving Station does not have any chemical, biological, thermal, high voltage, or high pressure hazards associated with it, because it does not require any chemicals, does not operate at high temperatures or high voltages, and does not offer the potential for physical contact with the FOG. The FOG does have the potential to generate methane, however this hazard will be mitigated by the treatment of the air above the liquid surface by the odor control system and its continuous replacement with fresh outside air. In addition, the design of the FOG Receiving Station follows the latest National Fire Protection Association (NFPA) 820 standards for fire protection at wastewater treatment plants. Any electrical equipment inside the tank and within a specified radius of the

tank's air intake vents will be explosion proof rated.

Will the process modification change the safety of the site?

The tank and its contents will not pose a safety risk to the surrounding community. Access to the tank will be restricted and controlled to prevent unauthorized access. The tank will be ventilated during use to prevent the buildup of gases associated with sewage and to control the fugitive odor emissions.