

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B163330493

FACILITY: Sensient Flavors, Inc.		SRN / ID: B1633
LOCATION: 79 STATE, HARBOR BEACH		DISTRICT: Saginaw Bay
CITY: HARBOR BEACH		COUNTY: HURON
CONTACT: Mark Halvorsen , Sr. EHS Engineer		ACTIVITY DATE: 08/06/2015
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Inspection to determine compliance with PTI 85-96E		
RESOLVED COMPLAINTS:		

I (slb) conducted a scheduled inspection at Sensient Flavors, Inc. (facility) in Harbor Beach on August 7, 2015. Sensient holds five permits with the AQD. I met with Tushar Patel (new Director of Operations as of May 2015), Jeff Woycehoski (maintenance supervisor), and Joe Gierman (Plant Engineer).

Facility Description:

Sensient produces hydrolyzed vegetable protein (HVP) from raw corn, soy, or wheat gluten. Raw feeds are processed through an acidic hydrolysis reactor (PTI 85-96E) to break vegetable proteins into their amino acid constituents. Depending on the customers' needs, the HPV is further treated through a neutralization process, filter presses to remove unwanted solids, and finally either to a sauce plant to be sold as a liquid or through their natural spray dryer (PTI 924-79A) and lastly bagged to be sold in bulk. Energy for the process is generated by two natural gas fired clayton boilers (PTI 925-79). Records review showed that oil has never been used in the boilers.

Compliance Determination:

PTI 85-96E

FGHVPHCLNEUHTA

EUHVPREACTORS HVP reactors vented to a packed Bed Scrubber System for control (HVP Reactor Room Scrubber)

The Packed Bed Scrubber system appeared to be installed, maintained, and operated in a satisfactory manner. Proper operating parameters include a minimum scrubber flow rate of 30 gpm, a pH level at or above 5, and a maximum differential pressure of 6.0 inches of water column. Recorded values on site: Flow Rate: 110 gpm pH: 11.6 Pressure Difference: 0.2 inches water column I also reviewed record logs onsite, the scrubber appears to be in compliance.

Status: Compliance

EUNEUTANKS Two Neutralization tanks, an HVP tank, and casein hydrolysate vented to a packed bed scrubber system for control (Neutralization Tank Scrubber)

The Packed Bed Scrubber system appeared to be installed, maintained, and operated in a satisfactory manner. Minimum scrubber liquid flow rate of 8.0 gallons per minute (gpm), pH level at or above 5, and max differential pressure of 6.0 inches of H₂O. Recorded Values onsite: Flow Rate: 11 gpm pH: 8.76 Pressure Difference: 1.8 An onsite records review also showed the scrubber is in compliance.

Status: Compliance

EUHCLLAHTANKS Hydrochloric acid tanks and the LAH tanks vented to the pack bed scrubber system for control (Neutralization Tank Scrubber or HVP Reactor Room Scrubber)

As discussed above both packed bed scrubbers appeared to be installed and operating within proper parameters. An onsite records review also showed the scrubbers are in compliance.

Status: Compliance

EUHTA1 Heat-Treated deammonization (HTA) adjustment tanks that are vented to a scrubber system for control (HTASCRBR)

The scrubber system appeared to be installed, maintained, and operated in a satisfactory manner. Minimum scrubber liquid flow rate of 37 gpm, maximum differential pressure of 2 inches H₂O. Recorded Values onsite: Flow Rate: 103 gpm density transmitter 8.4 pressure differential 0.16 inches H₂O. An onsite records review also showed the scrubber is in compliance.

Status: Compliance

EUHTA2 HTA treatment tanks (two 8,000 gallon tanks) and a new 4,000 gallon cook tank that are vented to a new packed bed scrubber system control (HTASCRBR2)

The scrubber system appeared to be installed, maintained, and operated in a satisfactory manner. Minimum scrubber liquid flow rate of 20 gallons per minute, pH level at or above 5, and a maximum differential pressure of 6 inches of H₂O. Recorded Values onsite: Flow Rate: 29.4 gpm, pH: 9.1, Differential Pressure: 0.8 inches of H₂O Records for the scrubber were reviewed onsite (see attached)

Status: Compliance

Records for the flow rate, pH, and pressure drop were reviewed for each scrubber. Wet Scrubber parameters were properly recorded on a daily basis.

FGGRAINSODA Grain handling (including storage silos) and soda ash transfer processes. Four dust collectors: EUGRAINDC1, EUGRAINDC2, EUGRAINDC3, EUGRAINDC4, and EUSODADC1.

The facility maintained weekly records of the pressure drop reading across the bag houses and provided me with copies of a few weeks. The facility was not receiving grain when I was onsite so none of the dust collectors were operating. The pressure drop recorded for past weeks were consistently below 6 inches of H₂O, which is the Maximum allowed pressure drop outlined in the Malfunction Abatement Plan (MAP).

The Facility was not maintaining a log of when the bags were replaced in each bag house, they were able to provide several work orders to show dates when they were replaced and moving forward they will record the date and time of when bags are changed out in the bin vents.

Status: Compliance

PTI 595-95A

This Permit is for a diatomaceous earth mixing tank and two filter presses. The diatomaceous earth tank has been removed. The filter presses were not operating when I was onsite.

Status: Compliance

PTI 924-79A

Covers a modified hydrolyzed vegetable protein drying process (HVP Dryer). A stack test was performed in 2007 verifying the emissions do not exceed 0.065 pounds per 1,000 pounds of exhaust gases. Visible emissions were 0%.

Status: Compliance

PTI 925-79

Two Natural Gas fired, Clayton Boilers. These boilers never burned oil as described in the permit, just natural gas.

Status: Compliance

The EPA issued a notice of violation to Sensient in June 2015 for failure to maintain proper pH and differential pressure parameters. The company has updated the MAP and it appears they are currently

complying with the parameters described in the plan. The control equipment parameters and records reviewed onsite show Sensient Flavors is currently in compliance with all PTI's.

NAME S. J. [Signature]

DATE 8-11-15

SUPERVISOR C. [Signature]