

Monica

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

B361037363

FACILITY: Pharmacia & Upjohn Co LLC, a subsidiary of Pfizer		SRN / ID: B3610
LOCATION: 7000 Portage Road, KALAMAZOO		DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: Scott Zabik , Environmental Professional		ACTIVITY DATE: 10/27/2016
STAFF: Dennis Dunlap	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE
SUBJECT: The inspection focused on wastewater provisions of 40 CFR Part 63 Subpart GGG.		
RESOLVED COMPLAINTS:		

This was a scheduled inspection. Dennis Dunlap and Monica Brothers were the inspectors for AQD. Scott Zabik and Bob Osipoff were present for Pfizer. The purpose of this inspection was to review the wastewater provisions found in 40 CFR Part 63.1256 (GGG). This inspection is a partial compliance inspection (PCE) and in the last year of the three-year inspection cycle.

Wastewater is designated as "affected" in subpart GGG if the annual average concentration of partially soluble HAP in the wastewater is greater than 1,300 ppmw, or the average annual average concentration of partially soluble HAP and soluble HAP in the wastewater is greater than 5,200 ppmw.

Affected waste streams at Pfizer are handled in various ways. Wastewater designated for the Z-line goes to the steam stripper (Column 1115, also called CPWM). The steam stripper was installed under permit 929-92G. The Z-line originates from buildings and tanks throughout the facility. It generally contains a higher percentage of water than solvents. The steam stripper separates out solvents and these are sent to the solvent recovery area (SRD) through the R-line for further processing. It can operate up to 100 gal/min. The bottoms from this process are sent to the sanitary sewer (Kalamazoo Water Reclamation Plant, KWRP). Sampling of the bottoms on 9/22/16 and 10/2/16 for methanol showed a concentration of 49 and 230 mg/l (ppm), respectively. Wastewater going to KWRP is sampled monthly and more in depth twice a year. Sampling results were obtained from the last 12 months. These sampling results indicated that none of this wastewater is affected.

There are two feed tanks for the steam stripper (ST 320 is a back up feed tank). The bottoms from the steam stripper go to either tank 309 or 310. The wastewater goes through a plate clarifier. The solids are disposed of in a landfill. Tanks 317 and 318 are filtrate tanks. Tanks 5030 and 5031 are wastewater storage tanks.

Concentrated waste streams of solvents may go directly to SRD through a designated line to be stored and processed through one of the distillation columns. The Y-line goes to the south tank farm to be transported off-site and may be burned in cement kilns. The J-line handles waste that will go to the deep injection well.

The various waste stream lines are: A-line, methylene chloride; B-line, THF from building 66; C-line methanol and methylene chloride; D-line, octane and methylene chloride; E-line, ethyl acetate and methylene chloride; G-line, toluene; I-line, THF; J-line, deep injection well; K-line, acetone; Q-line, dmf; R-line low grade methylene chloride; V-line, octane from building 173; Y-line, south tank farm; z-line, steam stripper.

There are 8 distillation columns. Columns 1 (octane) and 2 are batch columns and do not go to the sewer. Columns 4 and 5 are batch columns for acetone and the bottoms may go to the sanitary sewer. However, column 4 may also be used for methanol and column 5 for THF and methylene chloride. Column 6 is a batch column for methanol, octane, and methylene chloride. Column 8 is a continuous column for acetone. It is divided into columns A and B. Tanks 232 and 231 are day tanks and tanks 285 and 286 are distribution tanks for plant use. Column 8 was installed around 2012 and was determined to be exempt from air permitting requirements. The bottoms go to the sewer. Column 7 is divided into 4 columns and is used primarily for THF from the B-line. Purified THF from this column may be sent back to Building 66. Column 10 is currently being installed. It is permitted under PTI 82-16. It is separated into 3 columns and will be used to recover solvents for sale that currently go through the y-line to the south tank farm including methylene chloride.

There is a building with a control panel for the distillation columns. This portrays the columns, materials, tanks, and piping currently in use. This was viewed to see the operations of columns 7 and 8. There are various storage tanks for solvents to be processed in the distillation columns, for purified solvents to be used at the facility, and solvents for sale. These include some underground storage tanks. A vapor recovery system is used during loading and unloading of solvents from tanker trucks and railcars.

The bottoms from columns 7 and 8 were sampled on 10/20/16 for methanol, methylene chloride, and toluene. The highest was methanol and was 190 ppm from column 8 and 8.4 from column 7.

All of the tanks in SRD including the distillation columns are connected to the thermal oxidizer (TO). Processes associated with the steam stripper are also connected to the TO.

Methylene chloride may be purified by using a molecular sieve. Beads are used to separate water from the solvent. Hot nitrogen is used to remove water from the beads. This water goes to the Z-line.

Since the storage tanks are connected to a closed-vent system which goes to the TO, the pressure relief devices on the storage tanks are not required to be monitored on a quarterly basis.

The summary is that all affected wastewater is processed either through the steam stripper, the distillation columns, sent to the south tank farm, or to the deep injection well or a combination of these. No affected wastewater is sent to the sanitary sewer.

NAME Dennis Dunlap

DATE 11/3/16

SUPERVISOR MA 11/4/2016