



containers. Employees then inspect the containers to ensure that they were cleaned properly. The containers are then dried and then ready to be returned to the customer to be filled again. The medical waste is then treated in a multiple stage closed system autoclave. The waste is heated in a three stage process. The first two stages heat the waste to 275F for one minute each. The last stage heats the waste to 275F for 10 minutes. The steam used to treat the waste enters the condenser, where it contacts cooling water. The water and all condensate exit through the sewer. Any remaining steam exits the building through a roof stack that is 18 feet about roof level. The facility operates a natural gas fired boiler with 2 water storage tanks to heat the steam. The treated waste, after passing through the compactor, is placed in a Waste Management roll off bin. Waste Management picks up the roll off containers about once a day. Currently the roll off container is uncovered.

In an effort to reduce the odors, the facility implemented some changes to the process. The facility has installed low flow nozzles for the condenser. These nozzles slow the flow of steam into the condenser, so that more steam could condense and enter the sewer system instead of being discharged through the roof stack. The facility also extended the roof stack from 6 feet about roof level to 18 feet about roof level. Lastly, the facility has a compactor to store the treated waste. This will store the waste in a covered container until Waste Management takes the waste to the landfill.

### **INSPECTION NARRATIVE**

On Tuesday September 8, 2015 I spoke with Mr. Darren Whitman, Regional Operations Manager and Jason Baker, Plant Manager, to discuss the process and perform an inspection of the facility. Together we discussed the process, and Mr. Whitman explained that no changes had been made since the changes made to address the odors. The autoclave and boiler system has been installed and began operating on August 22, 2014. I reviewed the chart record which records the temperature, pressure and time for each day. These daily records are kept on file on site.

Next, we walked through the facility. First we walked through the area of the plant where the sharps containers are dumped into an autoclave bin. The containers are cleaned and sent to the customer to be reused. Once the autoclave bin is full, it is placed inside the autoclave to be treated. At the time of the inspection, the autoclave was in a cooling stage between the second and third heating cycle. The unit was operating at 251 F and 2 psi. The unit will drop the pressure to -7 psi and then raise the pressure to 7 psi. There were no visible emissions observed to be coming from the autoclave. The sorting operating at the facility had not changed other than the sharps are now placed into the autoclave bins to be treated onsite. Any pathogen material that is brought to this facility is shipped off site where it can be properly treated.

### **APPLICABLE RULES/PERMIT CONDITIONS**

The facility has installed a boiler and an autoclave. This equipment is permitted by PTI 60-10 which was issued on September 29, 2010. The facility received an 18 month extension to begin construction of this equipment, which would have expired on September 28, 2013.

### **EUAUTOCLAVE**

- I. Emission Limits – Compliance. During the onsite inspection, no visible emissions were observed coming from the autoclave while it was operating.

- II. Material Limits – Compliance. The facility does not treat any hazardous waste. The facility treats red bag waste, such as materials soaked with blood or other bodily fluids. The facility also treats sharps waste and trace chemotherapy waste.
- III. Process / Operational Restrictions – The facility appears to be following the proper maintenance plan for the autoclave.
- IV. Design / Equipment Parameters
  - 1. Compliance – The carbon control system is installed and operating properly. This system is tested about once every six months. Results from the test in February 2015 so that the system was operating properly. The system was tested about a week before the onsite inspection, and the results should be sent to the company soon.
  - 2. Compliance – The steam passes through cold water to condense more steam, with the water being discharged into the sewer system. This discharge water is tested by the company about once per quarter. Also, the municipality responsible for the sewer frequently preforms inspections at this facility, testing the water each time. The facility also follows up these inspections with an additional water test.
  - 3. Compliance – The facility has installed mercury saturation indicators as part of the carbon control system. This system is operating properly and is tested every six months.
- V. Testing / Sampling – Compliance The carbon control system is tested about once every six months. The system was tested in February 2015 with all samples below the detectable limit for mercury. The system was tested on September 3, 2015 and the results should be submitted to the facility today or tomorrow.
- VI. Monitoring / Recordkeeping
  - 1. Compliance – The facility has a chart recorder on the autoclave. This records the time, pressure of the unit and the temperature. These completed records are then kept on site for review. During the onsite inspection I saw the recorder operating properly.
  - 2. Compliance – The facility maintains manifests of all waste that enters the facility.
  - 3. Compliance – The facility keeps a daily record of the temperature, pressure and time each day the autoclave operates. This record is kept on site.
  - 4. Compliance – The facility tests the carbon control system every six months. The system was last tested on September 3, 2015. Results from the February 2015 test showed that no mercury was detected in the test.
  - 5. Compliance – The facility maintains a record of the mercury testing on site.
- VII. Reporting – NA
- VIII. Stack / Vent Restrictions – NA
- IX. Other Requirements – NA

## **MAERS REPORT REVIEW**

NA

## **FINAL COMPLIANCE DETERMINATION**

Daniels Sharpsmart appears to be operating in compliance with all state and federal regulations at this time. The facility appears to be operating in compliance with all permit conditions as well. There have not been any odor complaints since the facility raised the stack and preformed other process changes. Periodical odor surveillance in the area has not confirmed any odors being emitted from this facility.

NAME Jill C. Z...

DATE 9/25/15

SUPERVISOR \_\_\_\_\_