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DEPARTMENT OF ENVIRONMENTAL QUALITY
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ACTIVITY REPORT: Self Initiated Inspection

F325440526

FACILITY: Selfridge Air National Guard Base		SRN / ID: F3254
LOCATION: 127th Wing/Environmental Mgmt Office, MOUNT CLEMENS		DISTRICT: Southeast Michigan
CITY: MOUNT CLEMENS		COUNTY: MACOMB
CONTACT: Kenneth Baker, Environmental Engineer		ACTIVITY DATE: 06/12/2017
STAFF: Tyler Salamasick	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Mercury emission monitoring with Joy Taylor Morgan and Kerry Kelly		
RESOLVED COMPLAINTS:		

Background

Selfridge Air National Guard Base (Selfridge) SRN F3254 is a military facility located in Harrison Charter Township, MI 48045. Selfridge is located in a primarily residential area with the nearest residential structures between 100-900ft for the edge of the property. The property itself is approximately 2.4 miles long (north and south) and 2 miles wide (east and west). Selfridge operates a drum top bulb crusher on this property. The drum top bulb crusher is located at Selfridge's recycling center. The recycling center is located toward the center east edge of the property, approximately one mile away the nearest residential structures. The facility was inspected on two separate occasions. The first inspection was on conducted 10/26/2016 by Eric Hansen, Senior Auditor and Tyler Salamasick Environmental Quality Analyst. On 6/12/2017 Selfridge was inspected by Joy Taylor-Morgan, Environmental Quality Specialist Kerry Kelly, Environmental Quality Analyst and Tyler Salamasick, Environmental Quality Analyst of the Michigan Department of Environmental Quality, Air Quality Division. The intent of the inspection was to measure mercury emissions from Selfridge's bulb crushing operation as well as determine compliance with PTI 10-15 (bulb crusher permit).

Inspection

The first site visit was on 10/26/2017. Site arrival was at 9:59 am. Eric Hansen, Senior Auditor accompanied me on the inspection. Ken Baker, Environmental Manager for Selfridge met with us and showed us the facility. When we attempted to perform the mercury monitoring the mercury monitoring device malfunctioned. We were unable to conduct the testing and I was only able to use the visit to determine compliance with the conditions of PTI No. 10-15.

The second site visit was conducted on 6/12/2017. Joy Taylor, Morgan Environmental Quality Specialist and Kerry Kelly, Environmental Quality Analyst accompanied me on the inspection. We met with Ken Baker and I introduced him to Kerry. Kerry had recently been assigned Selfridge as one of her sources. Ken described the facility and its processes to Joy and Kerry. After discussing the facility and its processes, Joy informed Ken of our testing procedures. I carried the monitoring equipment while Joy operated the equipment and took the readings. We conducted our testing in multiple locations as described in the "Lumex Record of Use" report.

Permit conditions

SC1 under material limits requires that the permittee not to crush more than the equivalent of 400 eight-foot fluorescent light bulbs in EU-BULBCRUSHER per calendar day. For the last 12 months since September of 2016, Selfridge was averaging approximately 200 bulbs per month. The highest number crushed per month was 508 bulbs. The daily amount is limited to 400 bulbs, and Selfridge was below its daily amount.

SC.2 under material limits requires the permittee not to crush more than the equivalent of 5000 eight-foot fluorescent light bulbs in EU-BULBCRUSHER per 12-month rolling time period. The 12

month rolling for September 2016 was 2492 bulbs. This is half of the 5000 bulb limit and is compliant with the requirement.

Process and operational restrictions requires that EU-BULBCRUSHER shall be installed, maintained, and operated in a satisfactory manner to minimize emissions to the ambient air. Recommended Best Management Practices for Drum-top Crushers and Recommended Best Management Practices for Lamp Handling & Storage are specified in Appendices 1 and 2. Selfridge's bulb crusher appeared to be in good working condition. In addition we did not detect high levels of mercury emissions while conducting our monitoring. The control devices, as well as management practices appear to be minimizing the introduction of mercury into the air.

EU-BULBCRUSHER is required to be located a minimum of 50 feet from the property line; 300 feet from any existing places of residence or private or public assembly; 500 feet from a school, apartment building, or institutional occupancy; and not less than 1000 feet from a hospital or nursing home. Selfridge has its bulb crusher located at least 1 mile away from any of the above locations.

Design and equipment parameters requires that EU-BULBCRUSHER is not operated unless the bag filter followed in series by a HEPA filter and an activated carbon filter are installed, maintained, and operated in a satisfactory manner. The filters and carbon filter appeared to be installed and operating properly. The parameter section also requires that feed chute of EU-BULBCRUSHER is sealed with a cap or other similar device whenever the unit is not in use. When we first arrived and the equipment was off I checked the feet shoot and observed that it was capped.

Selfridge appears to be meeting the bulb crusher monitoring and record keeping requirements as describe in the monitoring and record keeping section.

Conclusion

It appears that Selfridge is in compliance with the requirements of PTI No. 10-15.

NAME 

DATE 8/01/17

SUPERVISOR SK