

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

B206028041

FACILITY: ANN ARBOR WASTEWATER TREATMT PLT		SRN / ID: B2060
LOCATION: 49 SOUTH DIXBORO ROAD, ANN ARBOR		DISTRICT: Jackson
CITY: ANN ARBOR		COUNTY: WASHTENAW
CONTACT:		ACTIVITY DATE: 12/11/2014
STAFF: Glen Erickson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Inspection to FU on company's compliance plan implementation to resolve off-site odor problems related to their sewage sludge cake load-out into trucks for transport to Woodland Meadows Landfill in Wayne County.		
RESOLVED COMPLAINTS:		

Met with Keith Sanders, Assistant Manager, Wastewater Treatment Services to FU on his efforts to find an alternative odor control strategy to reduce the off-site odor impacts from the loading of sewage sludge cake into trucks for transport to the landfill. Also, wanted to find out if A2WWTP sewage sludge was involved in the recent PEAS call regarding landf application of sewage sludge at the location off 6 Mile Road, just west of Pontiac Trail, where an odor complaint was registered in early July, 2014.

After describing the odor complaint registeed Monday, 12-8-14 by Valerie Stefanof of 5641 6 Mile Road, South Lyon (mailing), Sanders indicated that he switched over in mid-November from agricultural application of lime-stabilized sewage sludge biosolids to the sludge cake process utilizing centrifuges to make sludge cake to truck to the landfill. The sludge cake has lime kiln dust added to it before accumulating in the sludge storage silos for deposit in trucks within the load-out bays. He said he does not like to switch back and forth between these 2 methods of sludge disposal because of the chance of improperly limed sludge being sent for agricultural application that requires lime stabilization for 2 hours at 12 pH. So this complaint may be associated with the application of sewage sludge from the South Lyon wastewater treatment plant.

We discussed Sanders' compliance program efforts to identify an alternative odor control remedy to the current approach of adding the lime kiln dust at the truck loadout in order to not cause odor complaints at the Woodland Meadows Landfill. This addition of lime kiln dust, or its predecessor powdered lime, to the sewage sludge cake has caused several instances of unacceptable nuisance foul odors being drawn into the air make-up ventilation at the nearby St. Joseph Mercy Hospital, located SE of the wastewater treatment plant.

Sanders is currently pilot-testing 2 odor masking or control additives from GOC. He tried 1 of the 2 products already, where the liquid is sprayed into a location downstream of the centrifuge discharge and upstream of the pugmill, and 1 location downstream of the pugmill. Sanders thought the additive worked to control foul odors at the plant, but, apparently was not satsifactory at the landfill. Sanders said he will try to go on-site to the landfill to observed the tipping of their sludge after the 2nd product is pilot-tested.

Following that pilot-testing he is planning on meeting with staff of the Detroit wastewater treatment plant to discuss their approach to odor control, which he thinks holds some promise to Ann Arbor's situation. He will stay in touch with AQD as he moves along with this pilot-testing of odor control agents. I asked to have Jeff Zabel escort me on an inspection of the plant.

DTE was working to bring in power to the newly installed emergency generators so they can begin conducting shake-down testing in this new electrical control building.

The activated carbon odor control vessels are scheduled to have carbon replaced this winter. Today carbon bed No. 1 = 6.0 " w.g. pressure drop across the bed. No. 2 bed = 5.6 " w.g. pressure drop across the bed. No. 3 bed was off-line.

Zabel got a call that he needed to direct the loading of lime kiln dust from the delivery truck to the storage silo. The truck had a broken delivery hose, for which the plant had no replacement. As the driver was in the process of getting his company to bring out a replacement hose, the sludge cake truck pulled up to be loaded with sewage sludge in the storage silos which had had the standard treatment with the lime kiln dust, and not the alterative GOC product.

Observed truck loading of sewage sludge cake mixed with lime kiln dust. A very significant cloud of water vapor and ammonia compounds was released from the open truck bed. The distinct odor of ammonia was extreme about 100 ft. from truck loading. The odor intensity was definitely a 4. The truck driver was on a platform at about the level of the top of the truck bed where he was raking the cake to even it out in the bed. He had on a particulate half-face mask, which wouldn't have had much effect on reducing the impact of the ammonia. It may have had some effect on particulates and semi-volatile aerosols. It would seem more appropriate to wear a full face mask with an ammonia capturing cannister.

The ammonia odor certainly masked any sewage-type odor, which it would seem would be more prominent in the plume once the ammonia began evaporating and dispersing.

This observation makes the consideration of adding on air pollution control for the entire truck loading bays appear more as a distinct possible element in the effort to reduce off-site foul odors from the sewage sludge cake truck load-out. It may even be necessary to consider adding solid truck bed covers, instead of the fabric mesh currently on the beds of what is normally a gravel train.

Will continue to monitor this operation and hopefully re-inspect the facility within the month. Despite the overwhelming ammonia odor release observed today during the truck loading of sludge cake, I will not consider this a Rule 901 violation at this time since I did not observe these odors off-site.

NAME CLAY BRICKSON

DATE 12-16-14

SUPERVISOR [Signature]