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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF

March 23, 1995

HSRL-6J

Richard S. Williams, P.E.  
Golder Associates, Inc.  
1809 North Mill St., Suite C  
Naperville, Illinois 60563

Re: Yeoman Creek Landfill Site

Dear Mr. Williams:

The purpose of this letter is to communicate the results of the final inspection of the ventilation system conducted on March 15, 1995, and to address concerns about performance of the ventilation system.

On March 15, 1995, Om Patel of Roy F. Weston, Inc. (Weston), Sheri Swibel of The Jeff Diver Group, Allie Hashimi of Golder Associates, Inc. (Golder), Keith Larsen of Air Con, and I conducted a successful final inspection of the ventilation system for that 1401-1451 Golf Road building. The United States Environmental Protection Agency (U.S. EPA) has consulted with Greg Ratliff of the Illinois Environmental Protection Agency (IEPA) regarding this inspection and the resulting actions. The the inspection addressed the checklist items identified in the prefinal inspection for ventilation system conducted on June 10, 1994 (attached) and U.S. EPA's concerns regarding performance of the system identified in July 7, 1994 and November 2, 1994 letters from U.S. EPA. These performance concerns included the inability to meet the 100 ppm criteria (see Section VI.A.1.b of the Second Amendment to the Consent Order), and concerns regarding receipt of warnings and prompt response to shut downs. The final inspection had been delayed because of these performance concerns.

In previous inspections, it had been noted that checklist items 3 and 6 had been addressed. When Om Patel and I inspected the system last week, we noted that items 2 and 5 had been addressed. With respect to checklist item 1, Allie Hashimi informed me that the operation and maintenance has included optimizing flow rates every 3 months.

During the inspection, it was observed that the exhaust system properly shut down in response to a shut down in the overall supply system (item 4.a), and that the enunciator properly

provided a warning to Golder (item 7). I was informed that the revisions to the system to address items 4.b and 4.c had not yet been performed, but that the PRP Committee intend to implement these revisions (please note that the for item 4.b, a malfunction in the exhaust system need not automatically shut down the exhaust fan because shut-down of the exhaust fan is practically the only occurrence that would trigger this alarm, and because continued operation of the exhaust fan would not be harmful). Weston will inspect for proper operation of the automatic alarm/shut-off system for U.S. EPA, once the corrections to address items 4.b and 4.c are completed.

As noted in the November 16, 1994 letter from Golder, the PRPs have taken a number of actions to attempt to meet the 100 ppm performance standard in the 1451 Golf Road basement. U.S. EPA believes that these actions have been adequate except for the crack sealing work. In high traffic areas, some of the silicone caulk used had already pulled away from cracks located in high traffic areas. Therefore, all cracks in high traffic areas where gas may be entering must be repaired with a more permanent seal. Widening the cracks and sealing with urethane caulk is suggested in some guidance documents (see Air/Superfund National Technical Guidance Study Series -- Options for Developing and Evaluating Mitigation Strategies for Indoor Air Impacts at CERCLA Site, EPA-451/R-93-012, September 1993; and Radon-Resistant Construction Techniques for New Residential Construction, EPA/625/2-91/032, February 1991). Sheri Swibel informed me that the PRP Committee had already approved sealing the cracks.

The PRPs have requested a modification of the 100 ppm action level to 1000 ppm. The 100 ppm action level in the Second Amendment triggers an evaluation of the system design and performance. Other than the additional crack sealing work, this interim measure has been designed and constructed, and is performing in a manner which achieves a reasonable degree of safety from the risks posed by the landfill gases. A permanent remedial action will be considered in the remedy selection process for the Yeoman Creek Landfill. Therefore, under presently known conditions, once the cracks in the floor of 1451 Golf Road are more permanently sealed, no further interim measures need to be taken to control the gas entry other than operation and maintenance of the ventilation system, the footing traps, the floor seals, and the other measures that have been taken. Weston will inspect the final crack sealing in 1451 Golf Road for U.S. EPA and report the results in field inspection reports.

U.S. EPA will also continue to have Weston monitor Golder's response to warnings of system shut downs. It should be noted that the revision to address item 4.b should eliminate many unnecessary shut downs.

Inasmuch as, the March 15, 1995 inspection was a successful final inspection, the Construction Completion Report must be submitted by April 14, 1995, in accordance with Section VI.B.3 of the Second Amendment to the Consent Order.

This letter also communicates U.S. EPA's review of the Operation and Maintenance Plan Air-Exchange and Ventilation System (O&M Plan) dated July 1994. Completion of this review had been delayed because of the performance concerns. U.S. EPA, in consultation with the IEPA, disapproves the O&M Plan. The deficiencies and required modifications to this Plan are listed below:

SECTIONS 2.4, 2.5, 2.6: Pursuant to Section VIII of the Consent Order, selection of principal contractors and subcontractors is subject to approval by U.S. EPA in consultation with IEPA.

SECTIONS 3.0, 3.1, 3.2, 3.3, 3.4, 3.6: There are inconsistencies among these Sections, since Section 3.0 states that "One copy of all reports will be submitted to the U.S. EPA, and IEPA; yet the other Sections indicate that U.S. EPA will only receive the results, information, or summaries of the reports prepared by the contractor.

SECTIONS 3.6, 3.7: In accordance with the Section IX.E, of the Consent Order, the results of the ventilation system inspections and actions shall be incorporated into the monthly progress reports.

SECTION 4.1.1: The description should address traps on the footing drains, the elevated sump level maintained in 1451 to block the floor drain, and sealing of cracks in the basement floor of 1451 Golf Road.

SECTION 4.1.1, SECTION 4.3.5: The description of the shut down system should be revised to address items 4.b and 4.c (attached).

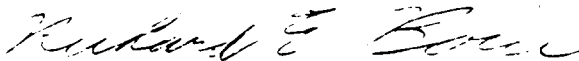
SECTION 4.3: Routine O&M inspections should include visually checking condition of the traps on the footing drains, the sump level in 1451, seals over cracks in 1451, and checking the effectiveness of these measures with the OVA during the monthly inspections. Any defects that may allow gas entry should be corrected. Routine O&M inspection should also include inspection of the sound reduction measures, and any defects that may reduce their effectiveness should be corrected. In addition, actions should be taken to quickly replace or repair any motors that are making an unusual amount of noise.

SECTION 4.4.1.1: Incorporate the flow rates that have been determined to be most effective in meeting the objectives of this action.

In accordance with Section VI.B.1 of the Second Amendment to the Consent Order, the revised C&M Plan incorporating U.S. EPA's modifications and additions must be submitted within 21 days from your receipt of this letter.

If you have any questions or comments, feel free to contact me at (312) 886-4740.

Sincerely yours,



Richard Boice  
Remedial Project Manager

cc:

- O. Patel, Weston
- G. Ratliff, IEPA
- S. Bleiweis, MWE
- D. Vallance, BFI
- R. Parson, Waukegan
- J. Diver, Diver

CHECKLIST FOR FINAL INSPECTION OF  
VENTILATION SYSTEM FOR 1401-1451 GOLF ROAD

1. Complete adjustment of air supply and air exhaust flow rates into each unit.
  - a. Check that supply air flow rate exceeds exhaust air flow rate in each unit.
  - b. If possible check for positive pressure in each basement compared to outside air.
2. Improve balance of exhaust air flow distribution in different parts of basement of 1415 Golf Road.
3. Repair or replace defective high pressure gas supply switch.
4. Revise the automatic shut off system as advised in the June 10, 1994 letter. Representatives of the Respondent indicated that this would be agreeable. Check for proper operation as follows:
  - a. In response to a malfunction affecting the overall supply system, the air supply/air exhaust system should shut down.
  - b. In response to a malfunction in an exhaust air system in one unit, only the exhaust fan for the affected unit should shut down. Proper shut down should be check for several of the units.
  - c. In response to a malfunction in the supply air system for one unit, only the exhaust fan for the affected unit should be shut down. Proper shut down should be checked for several of the units.
5. Install silencer. Check noise levels in basements.
6. Install additional door in blower building.
7. Check operation of the enunciator.