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Division of Waste Management

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October 8, 2010

Mr. Stephen King
Haywood County Solid Waste Director
278 Recycle Road
Clyde, North Carolina 28721

Subject: Revised Environmental Monitoring Plan
White Oak MSW Landfill
Haywood County
Permit 44-07
Doc ID 11742

Dear Mr. King:

The Solid Waste Section (SWS) has not received the revised Environmental Monitoring Plan (plan) and related information required from McGill Associates, P.A (McGill). Following discussion with McGill regarding proper location, abandonment, and replacement of several groundwater monitoring wells, the SWS requested a revised plan to show an updated plan (Doc ID 11087). The submission of updated site maps, modification of the plan, and plan to locate and properly abandon wells had also been specified in the Compliance Order issued by the SWS Field Operations Branch.

Prior discussion with McGill is summarized in the SWS letter dated, May 5, 2010 (Doc ID 10520). In that letter the SWS approved replacement of MW-3, MW-3D, MW-4A, MW-9, SW-2, and LFG-4. Although the landfill gas monitoring well, LFG-4, is separately addressed in a revised Landfill Gas Monitoring Plan (Doc ID 11610), a well abandonment record for it is required. Following discussion with McGill, the SWS approved delisting MW-9 from the current plan (Doc ID 11087). However, a well abandonment record for it is also required. An updated plan should reflect these changes in information.

The revised plan should reflect other changes communicated by the SWS. One, a map showing hydrogeologic data south of Phases 1,2,3, and 4. Bunnell-Lammons Engineering, Inc. (BLE) reported that it submitted a map with that information to the Field Operations Branch. However, the map had been excluded from the Design Hydrogeologic Report (Doc ID 7040) and plan (Doc ID 5808) submitted to the Permitting Branch. Include the map in the revised plan.

Two, the SWS required wells MW-3, MW-3D, and LFG-4 to be properly abandoned in accordance with Regulation 15A NCAC 2C .0114(b). As the SWS also previously specified (Doc ID 11087), new wells replacing abandoned wells should be given new identification

numbers or some variation of their original identification to distinguish them from wells they replaced.

Three, in Figure C2 in the Control Quality Assurance report (CQA), McGill showed an existing unnamed well located north of proposed Phase 4. This well appears to be one of the wells McGill referenced in early communication (Doc 6609 and Doc 6610) when it proposed excavation and fill in the area. This well should be identified and appropriately addressed. Unclear to the SWS is whether this is a well to include in the plan or properly abandoned. It is not shown in the current plan (Doc 5805).

Four, well constructions records are required for all wells installed to replace wells McGill reportedly "covered with fill dirt". Based on discussion with McGill, the SWS identified MW-3, MW-3D, and MW-4A for replacement. In the January 2010 semi-annual sampling report (Doc ID 9919), McGill reported MW-4A "damaged" enough to prevent sampling. This well should be either repaired or replaced. All well abandonment and installation should be in accordance to applicable standards specified in Regulation 15A NCAC 2C.

Five, the SWS required restoration of SW-2 (Doc ID 10520). McGill also reported the surfacewater sampling station "covered with fill dirt". This and any other surfacewater sampling station should be restored or replaced and accurately depicted on a revised map.

A Professional Geologist should be on site during abandonment and installation of the wells. Upon completion of well abandonment and installation, boring logs, well construction records, and other proper documentation for each well should be submitted to the SWS. Full-sized, scaled topographic maps showing the location and identification of new, existing, and abandoned wells should also be submitted for use by the SWS Field Operations Branch.

If you have any questions, I can be reached at 919-508-8401 or at zinith.barbee@ncdenr.gov.

Sincerely,

Zinith Barbee

Zinith Barbee
Hydrogeologist
Solid Waste Section

cc: Ed Mussler — Solid Waste Section
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