



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

February 17, 2012

David Lambert, Solid Waste Director
Iredell County MSWLF
354 Twin Oaks Road
Statesville, North Carolina 28625-6447

RE: Permit to Construct Application – Phase 5
Iredell County MSW Landfill
Iredell County, North Carolina
Additional Information Request
Design Hydrogeologic Study,
Sampling and Analysis Plan, and Landfill Gas Monitoring Plan
Permit No. 49-03-MSWLF-1993
Document ID No. 16138

Dear Mr. Lambert:

The North Carolina Solid Waste Section is presently conducting a technical review of the Design Hydrogeologic Study associated with the Permit to Construct Application – Phase 5 lateral expansion, prepared by Maddie German, P.G. of MESCO on November 4, 2011 for Iredell County MSW Landfill. The Sampling and Analysis Plan and Landfill Gas Monitoring Plan are also included in this Study.

The Design Hydrogeologic Study and most of the associated drawings refer to the expansion of this landfill as Phase 5. The drawing, Plate 9 titled “Engineering Plan-Subgrade refers” to this same area as Phases 5 and 6. Most of drawings in the Design Hydrogeologic Study need to be revised to depict and differentiate actual Phase 5 and future Phase 6. Also, the acreage for each phase should be depicted on the drawings and stated in the narrative context of this Study. The compliance boundary depicted on Plate A titled, “Proposed and Existing Monitoring Well and Surface Water Locations” needs revision (reduction in size) to depict 250 feet from the northern distance from actual Phase 5, not Phase 6.

A statement or an addendum to the Design Hydrogeologic Study needs to mention that most of the hydrogeologic criteria contained in this Study can be used for a required additional design hydrogeologic study at a future time when the Permit to Construct Application for Phase 6 is submitted; however, some of the hydrogeologic data may have to be reevaluated /updated at that time Phase 6 is proposed for construction, such as vertical separation distance between seasonal / long-term high water levels and subgrade base grades, and an updated water quality monitoring plan, landfill gas monitoring plan, etc.

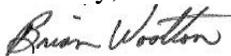
Based on the site visit on February 7, 2012 and review of the Sampling and Analysis Plan included in Appendix E of the Design Hydrogeologic Study and associated drawing, Plate A “Proposed and Existing Monitoring Well and Surface Water Locations”; revise the narrative and drawing to exclude groundwater detection sampling of MW-33 (P5-8), MW-34 (P5-5), MW-35(P5-1), MW-32S / MW-32D, P5-22, P5-20, P-77; however, these wells/piezometers can be used to sample water levels including other piezometers located within proposed Phase 6 for future hydrogeologic data. MW-33, MW-34, MW-35, and nested pair MW-32S-MW32D will mostly likely be used for detection groundwater sampling once proposed Phase 6 is completed and waste activities commence there.

The Sampling and Analysis Plan and associated drawing Plate 9 for Phase 5 needs to be revised to include detection groundwater sampling from upgradient MW-30(P-31), nested well pair P-84S/P-84D, P5-16, P5-14, nested well pair P5-21S/P5-21D, MW-31(P-79), and P-81. Existing groundwater monitoring wells, MW-1A, MW-1B, MW-1C, and MW-25 associated with the C&D landfill will also be sampled for Phase 5 monitoring. Within six months of issuing the Phase 5 Permit to Operate, four independent sampling events of monitoring wells MW-30(P-31), nested well pair P-84S/P-84D, P5-16, P5-14, nested well pair P5-21S/P5-21D, MW-31(P-79), and P-81 will be collected with at least one sampling event occurring prior to receiving waste. These sampling results will be used to establish a baseline for water quality information for the subsequent Phase 5 sampling events. Groundwater and surface water monitoring points will be sampled semi-annually thereafter for the Appendix I list of constituents.

These revisions to the Design Hydrogeologic Study need to be approved, signed, and sealed by a licensed geologist.

If you have any questions, please do not hesitate to call me at (919) 707-8258 or e-mail me at Brian.Wootton@ncdenr.gov.

Sincerely,



Brian Wootton
Hydrogeologist
NC Solid Waste Section

cc:	Wayne Sullivan	Municipal Engineering, Inc.
	Ed Mussler	NC Solid Waste Section
	John Murray	NC Solid Waste Section
	Ervin Lane	NC Solid Waste Section
	Central File	NC Solid Waste Section