



# Sanborn, Head & Associates

*Consulting Engineers & Scientists*

September 15, 1999  
File No. 1705

Mr. Larry B. Lackey  
Casella Waste Management  
3 Pitkin Court  
Montpelier, VT 05602

Re: Leachate Consolidation Project  
North Country Environmental Services, Inc.  
Bethlehem, New Hampshire

Dear Larry:

In accordance with our proposal dated September 1, 1999 Sanborn, Head & Associates, Inc. (SHA) has prepared plans for construction of the Leachate Consolidation Project at the North Country Environmental Services, Inc. (NCES) landfill in Bethlehem, New Hampshire. We prepared this letter and the enclosed plans in support of an application for a Type III Permit Modification for the NCES Landfill.

The project involves construction of a leachate consolidation system to provide a single leachate loadout location for the facility. The design plans for the project were prepared based on discussions which took place during a July 23, 1999 meeting at the New Hampshire Department of Environmental Services (NHDES) offices in Concord, New Hampshire.

The intent of the proposed design modifications is to install pumps and piping to convey leachate to a common tank for loadout. As indicated on the enclosed plans, new leachate loadout pumps are proposed to be installed in the primary leachate collection tanks for the four phases of Stage I. The pumps will direct leachate via dual-walled HDPE pipe to a central control building, where the leachate flows will be metered. The leachate will be discharged into a gravity main which will drain into the 20,000-gallon Stage II leachate collection tank, which currently collects leachate from Phases I and II of Stage II. Leachate from this tank is pumped via a transfer pump to a second 20,000-gallon loadout tank. The leachate transfer pump installed in the leachate collection tank to move leachate into the Stage II leachate loadout tank will remain in service. A new leachate loadout arm structure is proposed to be constructed to the south of the leachate loadout tank, and a concrete pad will be constructed to provide a stable platform for the leachate tank trucks. The loadout pump currently being used to load the trucks will be used to pump leachate through the new leachate loadout arm.

*Paul M. Sanborn ■ Charles L. Head ■ R. Scott Skillaber  
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Controls for the system will include submersible pressure transducers to be installed in each of the Stage I primary leachate tanks; flow meters to be installed in the central control building; and communication with the existing controls for the Stage I primary leachate sump pumps, and the Stage II leachate tanks and landfill sumps.

The Stage I primary leachate tank pumps will be manually activated. Controls will be provided to inhibit operation of the other Stage I tank pumps so that only one pump can operate and direct leachate through the central control building at any one time. Controls in the Stage II leachate collection tank will inhibit the Stage I tank pumps if the collection tank is full. Likewise, the Stage I primary leachate sump pumps will be inhibited if their respective primary leachate tank is full. The existing controls that inhibit the Stage II Phase I and Phase II leachate sump pumps if the leachate collection tank is full will remain in place.

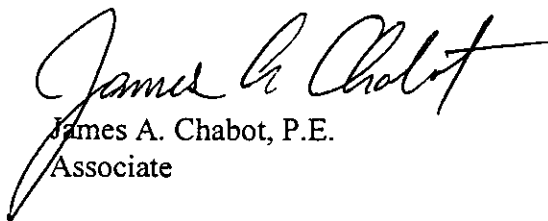
Sample ports will be installed on each of the incoming force mains in the central control building. Additionally, dry-disconnect cam-lock fittings will be installed on each of the incoming force mains to allow the flexibility to pump to a tank truck in the future, if required.

Equipment to be installed in central control building will be compatible with Class 1 Division 1 Group D atmospheres, as defined by the National Electrical Code. The control panel will be mounted on the outside of the building to limit required entry into the building, and will contain pump switches, tank level readouts, and flow meter readouts.


We believe the proposed modifications depicted on the enclosed plans are consistent with the design concepts discussed during the July 23, 1999 meeting with representatives of NHDES. Additionally, we believe the proposed modifications constitute improvements to the existing leachate handling system in that monitoring and control of Stage I leachate will take place from a central location and leachate from the entire facility will be pumped into tankers at one location via an overhead loadout.

If you have questions, or require further information, please give us a call.

Sincerely,  
SANBORN, HEAD & ASSOCIATES, INC.



James A. Chabot, P.E.  
Associate



R. Scott Shillaber, P.E.  
Principal

Enc.: Leachate Consolidation Design Plans



# Sanborn, Head & Associates

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September 17, 1999  
File No. 1705

Mr. Michael Guilfooy, P.E.  
Action Section Supervisor  
Permitting and Design Review Section  
Waste Management Division  
N. H. Dept. of Environmental Services  
6 Hazen Drive, PO Box 95  
Concord, NH 03302-0095



WMO Log # 199900328

Dear Mr. Guilfooy:

On behalf of North Country Environmental Services, Inc. (NCES), we are submitting the enclosed Type III Permit Modification Application for a Leachate Consolidation Project at the NCES facility in Bethlehem, New Hampshire for your review. Enclosed are four copies of each of the following:

- Type III Permit Modification Application;
- Letter to Larry Lackey describing the proposed design; and
- Leachate Consolidation plans prepared by Sanborn, Head & Associates, Inc.

Additionally, we have enclosed postage paid legal sized envelopes addressed to Larry Lackey of NCES, the Town of Bethlehem, and the Upper Grafton Lancaster Area Solid Waste District.

A copy of the Type III Permit Modification Application and supporting documentation has been sent to the Town of Bethlehem and the Upper Grafton Lancaster Area Solid Waste District.

If you have questions, or require further information, please give me a call.

Sincerely,  
SANBORN, HEAD & ASSOCIATES, INC.

James A. Chabot, P.E.  
Associate

cc: Larry Lackey, NCES  
Len Wing, NCES  
Dave Adams, NCES

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