February 8, 1999

Mr. Dominic Buccilli
Environmental Engineer I
New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Leachate Release
Modern Landfill, Inc.

Dear Mr. Buccilli:

On January 30, 1999 at approximately 9:15 AM, leachate was discovered seeping out the door of the Meter Building located near the northwest corner of the Section III, Area 4 landfill. Upon discovery, a trash pump was brought to the building and used to pump leachate onto the tire chip layer at the edge of Area 4 where it could seep back into the leachate collection system. The leachate transfer system was powered down to stop any pumping activity that would still contribute leachate to the spill. In addition, landfill staff used shovels to dam a drainage ditch located due west of the meter building to contain any liquids in that ditch. Modern's industrial cleaning crew was summoned as well and began removing liquid accumulated in a depression on Modern's property as well as within the ditch on that day.

Leachate appeared to seep from the building's south door, travel within the gravel of the landfill access road and flow west to a depression located on Modern's property line with the Department of Energy (DOE). Some leachate may have flowed out of the depression and into a ditch further west on the DOE property. Clean water was used on the access road and the depression to flush any residual leachate. Modern's crew collected this excess water as well.

After consultation with you on February 1, 1999, a sampling and analysis plan was agreed upon. The sampling plan consisted of obtaining soil and water samples, once Modern completed its clean up activities, from a location in the DOE drainage ditch where the leachate may have flowed as well as a location upstream (south), in the vicinity of the pore water drain outfall. The parameters were chosen based on the typical constituents found in Modern's leachate. These results are attached. A review of the data between the spill location and a location deemed upstream of the spill indicates no significant differences exist between the two locations. Therefore, the clean up operation has sufficiently returned the area to the conditions that existed prior to the spill.

Representatives of the Army Corps of Engineers have requested copies of environmental data pertaining to the spill constituents (leachate, secondary

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leachate collection system water and gas system condensate) as well as data on the pore water drain outfall that flows into their ditch. This data is attached for their use. Your office already has this information on file as part of the Part 360 and SPDES reporting requirements.

The spill was caused by a combination of factors. The spill originated when an air release valve on the common force main from the meter building to the storage tank failed. Leachate in the common force main then flowed onto the floor. The meter building has a collection sump within the floor equipped with a float that shuts off all landfill sump pumps when liquid first accumulates in the sump. The purpose is to minimize any spill should a pipe within the building burst. The building itself has containment capacity for up to 3336 gallons. The float was checked and was found to be working properly. All landfill sump pumps were shut off. However, two pumps are not within the landfill sump pump network and therefore were not originally included in the emergency shut off routine. The pumping of liquid from these two locations most likely caused the spill.

The spilled liquid most probably came from three sources. The first source of liquid would have been from the liquid in the landfill force mains into the meter building and the common force main to the leachate storage tank. When the air release valve failed, liquid in these pipes above the elevation of the valve outflow pipe, which is located on the meter building floor, was siphoned out. Based on a review of the leachate transfer and storage system certification documentation (Emcon August 1995), If all pipes were full at the time, I estimate that approximately 1450 gallons may have siphoned back onto the building floor.

The second source of liquid was gas condensate that is pumped into the common force main at the leachate loadout facility. This pump's controls were not affected by the emergency shut off. Based on meter readings taken on January 29 and 30, 1999, up to 245 gallons may have been pumped backwards into the meter building rather than the storage tank since the air release outflow pipe elevation is nearly 17 feet lower than the tank inlet pipe elevation. This pump was shutoff when the meter reading was taken on January 30th.

The third probable source of liquid was the loadout facility sump pump. This sump collects liquids spilled as a result of loading tankers with leachate. Typically, small amounts of liquid are spilled from the hose used to load the tankers as well as drainage from tanker fittings. I estimate that up to 40 gallons may be spilled onto the pad when a tanker is loaded. Modern does not track the times when tankers are loaded. However, in reviewing the tickets for 85 loads hauled on January 29 and 30, 1999, I estimate that between 45 and 50 loads may have been filled while the failure was occurring. At 40 gallons each, up to 2000 gallons may have been pumped from the loadout sump back to the meter building. This added volume would have overwhelmed the containment by roughly 360 gallons.

The actual amount of the spill is not possible to quantify. However, based on the possibilities outlined above and visual observation of the area, it would appear that only a small amount of leachate, such as the amount theorized, may have been released.

Modern has undertaken the following steps to prevent a reoccurrence of this type of spill. The pump controllers now will shut off all pumps in the event of a containment failure alarm. The containment failure alarm has been modified to include an audible siren-type alarm mounted at the flare controls building. This alarm will sound when there is any containment failure indication in either the Section III, Area 2/3 meter building, the Area 4 meter building or the loadout building. This alarm will help provide a means of responding to a containment failure in a more timely fashion. The air release valve has not been reinstalled. The landfill sumps have their own air releases and it is felt this one is redundant. The piping in the meter building will be checked routinely to make sure that air is not trapped in this location. If needed, a new air release will be installed. Finally, a 24-hour event recorder will be placed at the loadout building to provide a time record of a containment failure event. This recorder will be checked daily by landfill staff and by the guard on Sundays as a backup indicator to the other alarms.

If you require any further information, please do not hesitate to contact me.

Very truly yours,

James P. Goehrig, P.E.
Vice President of Engineering Services
MODERN LANDFILL, INC.

Enc.

cc: Mathew Massett, ACOE (with additional requested data)

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COLUMBIA ANALYTICAL SERVICES

Reported: 02/03/99

Modern Landfill, Inc.
Project Reference:NORTHWEST DRAINAGE LINE
Client Sample ID :STORM WATER #1

Date Sampled : 02/01/99 Order #: 270813 Sample Matrix: WATER
Date Received: 02/02/99 Submission #:9902000031

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
SODIUM	0.500	207	MG/L	02/03/99	1.0
WET CHEMISTRY					
AMMONIA	0.0500	0.796	MG/L	02/02/99	1.0
CHEMICAL OXYGEN DEMAND	5.00	22.6	MG/L	02/02/99	1.0
TOTAL PHENOLICS	0.0050	0.0172	MG/L	02/03/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 02/03/99

Modern Landfill, Inc.
Project Reference:NORTHWEST DRAINAGE LINE
Client Sample ID :STORM WATER #1-B

Date Sampled : 02/02/99 Order #: 271102 Sample Matrix: WATER
Date Received: 02/03/99 Submission #:9902000031

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
WET CHEMISTRY					
BROMIDE	0.100	1.51	MG/L	02/03/99	10.0
CHLORIDE	0.10	210	MG/L	02/03/99	20.0
CONDUCTIVITY		2600	umhos/cm	02/03/99	NA
PH		7.24		02/02/99	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/03/99

Modern Landfill, Inc.
Project Reference:NORTHWEST DRAINAGE LINE
Client Sample ID :STORM WATER #2

Date Sampled : 02/01/99 Order #: 270876 Sample Matrix: WATER
Date Received: 02/02/99 Submission #:9902000031

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
SODIUM	0.500	201	MG/L	02/03/99	1.0
WET CHEMISTRY					
AMMONIA	0.0500	0.923	MG/L	02/02/99	1.0
CHEMICAL OXYGEN DEMAND	5.00	22.6	MG/L	02/02/99	1.0
TOTAL PHENOLICS	0.0050	0.0216	MG/L	02/03/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 02/03/99

Modern Landfill, Inc.
Project Reference:NORTHWEST DRAINAGE LINE
Client Sample ID :STORM WATER #2-B

Date Sampled : 02/02/99 Order #: 271103 Sample Matrix: WATER
Date Received: 02/03/99 Submission #:9902000031

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
WET CHEMISTRY					
BROMIDE	0.100	1.64	MG/L	02/03/99	10.0
CHLORIDE	0.10	192	MG/L	02/03/99	20.0
CONDUCTIVITY		2400	umhos/cm	02/03/99	NA
PH		7.22		02/02/99	NA

COLUMBIA ANALYTICAL SERVICES

Reported: 02/04/99

Modern Landfill, Inc.
Project Reference:NORTHWEST DRAINAGE LINE
Client Sample ID :STORM WATER #1

Date Sampled : 02/01/99 Order #: 270815 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/02/99 Submission #:9902000031

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
SODIUM	50.0	885	MG/KG	02/03/99	1.0
WET CHEMISTRY					
AMMONIA	5.00	10.4	MG/KG	02/02/99	1.0
BROMIDE	10.0	18.6 U	MG/KG	02/03/99	1.0
CHLORIDE	30.0	269	MG/KG	02/03/99	1.0
CONDUCTIVITY		0.445	umhos/cm	02/02/99	NA
PERCENT SOLIDS	1.0	53.9	%	02/03/99	1.0
PH		7.93		02/02/99	NA
TOTAL PHENOLICS	0.100	0.110	MG/KG	02/03/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 02/04/99

Modern Landfill, Inc.
Project Reference:NORTHWEST DRAINAGE LINE
Client Sample ID :STORM WATER #2

Date Sampled : 02/01/99 **Order #:** 270877 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 02/02/99 **Submission #:**9902000031

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
SODIUM	50.0	906	MG/KG	02/03/99	1.0
WET CHEMISTRY					
AMMONIA	5.00	16.6	MG/KG	02/02/99	1.0
BROMIDE	10.0	19.1 U	MG/KG	02/03/99	1.0
CHLORIDE	30.0	279	MG/KG	02/03/99	1.0
CONDUCTIVITY		1.20	umhos/cm	02/02/99	NA
PERCENT SOLIDS	1.0	52.4	%	02/03/99	1.0
PH		7.85		02/02/99	NA
TOTAL PHENOLICS	0.100	0.100 U	MG/KG	02/03/99	1.0