OhioEPA

Facility Fact Sheet

Division of Hazardous Waste Management — March 2001

Facility Name:	Envirosafe Services of Ohio, Inc. (ESOI)
U.S. EPA I.D. :	OHD 045 243 706
Ohio Permit Num.:	03-48-0092
Location:	876 Otter Creek Road Oregon, Ohio
Fact Sheet Topic:	Deformed pipes in secondary leachate collection system of Cell M
Agency Contact:	Susan Aman (614) 644-2160

ESOI is permitted to operate a hazardous waste landfill at the 876 Otter Creek Road address in Oregon, Ohio. The active landfill unit at the facility is designated as Cell M and is constructed with dual liner and leachate collection systems.

On January 8, 2001, Ohio EPA received a letter from ESOI indicating that the secondary leachate collection system (SLCS) riser pipes for sub-cells M3 and M4 had deformed. The SLCS serves as an early warning system in the event of a primary liner system failure and as a back-up to the primary leachate collection system (PLCS). The High Density Polyethylene (HDPE) SLCS riser pipes are 12 inches in diameter and run down the side slope of the cell into leachate collection sumps (see attached figure).

The pipe deformations were discovered during routine maintenance operations when crews were unable to move leachate pumps through the pipes. Access through the pipes is needed to monitor liquid levels and for removing any liquid that has accumulated on the secondary liner system. Historically, there has been very little liquid generated in the SLCS.

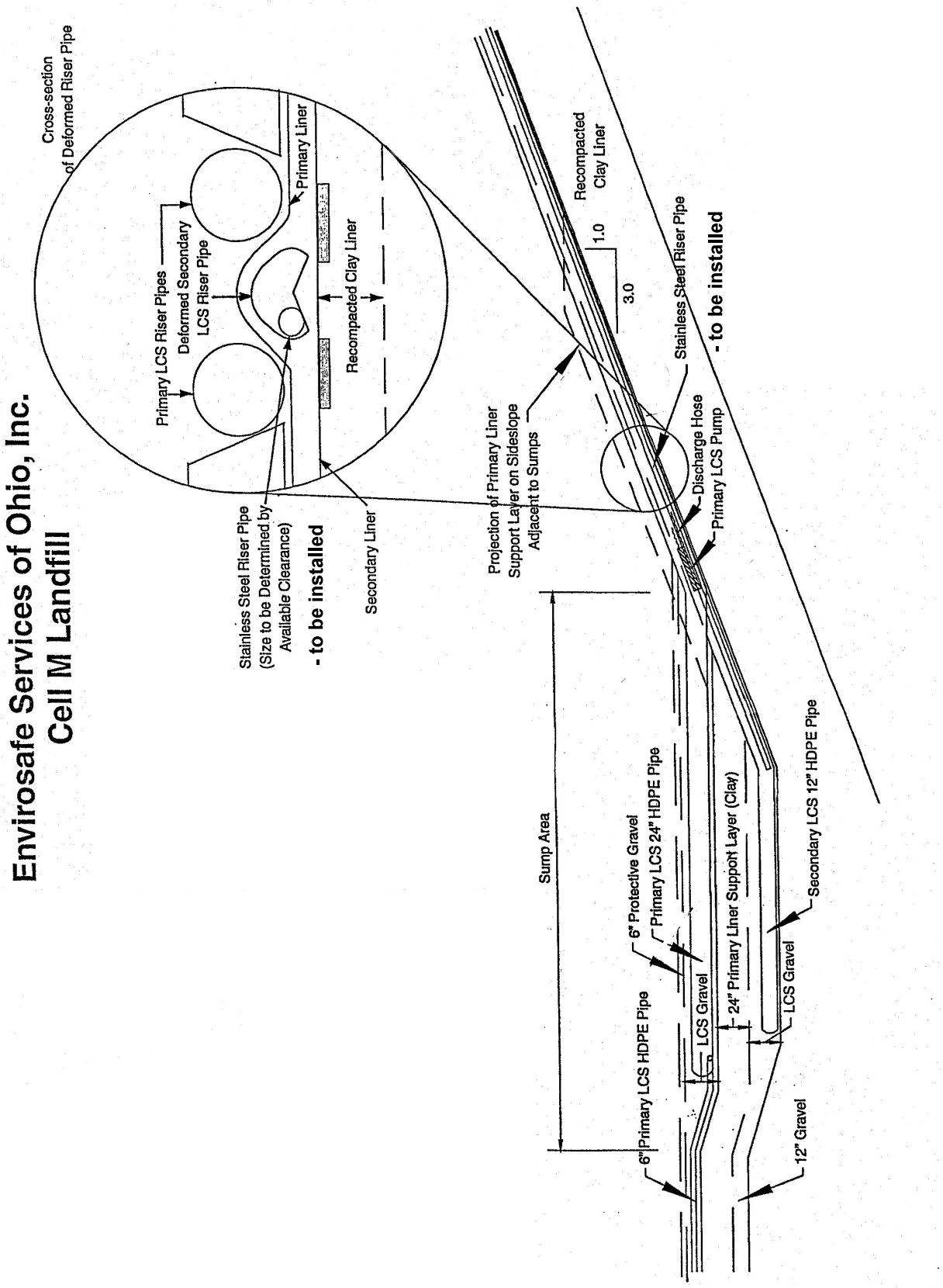
As an interim measure, ESOI has been able to install liquid monitoring equipment and smaller diameter pumps in the affected sub-cells and restore liquid removal capability. Ohio EPA believes these measures mitigate any immediate environmental threat.

On January 29, 2001, Ohio EPA sent a letter to ESOI requiring ESOI to provide detailed information on the nature and cause of the deformations. Agency staff met with ESOI representatives on February 22, 2001, to discuss the results of the investigation and potential remedies.

As a part of the investigation, ESOI performed remote video camera inspections of all the riser pipes for Cell M (both for the PLCS and SLCS) and for closed Cells G and I which also have similar secondary leachate system configurations. The video inspection revealed “kidney” shaped deformations in M3 and M4 SLCS riser pipes and additionally in the M2 SLCS riser pipe (see attached figure). All other leachate removal pipes in Cell M and Cells G and I were found to be in good condition. ESOI speculated that the deformations were caused by a lack of lateral support to the SLCS pipes. As designed and installed, lateral support was to be provided by a synthetic foam fill which was injected around the pipes during construction. Visual inspection of the synthetic foam fill is not feasible given the amount of waste already in place in the affected sub-cells.

To ensure long-term accessibility through the pipes, ESOI is proposing to install stainless steel pipes within the existing SLCS pipes of sub-cells M2, M3 and M4. The stainless steel pipes would be sized to maximize the existing space within the deformed pipes (approximately 3 inches in diameter). The proposed stainless steel pipe would have significantly higher pipe crushing strength than the existing pipe. The smaller diameter pumps required by the smaller diameter stainless steel pipes will be sufficient to remove liquids off the secondary liner in an appropriate time frame. ESOI has submitted a full proposal to Ohio EPA in the form of a Class 1A permit modification for Agency review and approval.

For additional information, please contact Susan Aman, (614) 644-2160.


Envirosafe Services of Ohio, Inc.
Cell M Landfill
Cross-section of Deformed Riser Pipe
Primary Liner
Primary LCS Riser Pipes
Deformed Secondary LCS Riser Pipe
Recompacted Clay Liner
Stainless Steel Riser Pipe (Size to be Determined by Available Clearance)
- to be installed
Secondary Liner
Projection of Primary Liner Support Layer on Sideslope Adjacent to Sumps
Recompacted Clay Liner
1.0
3.0
Stainless Steel Riser Pipe
- to be installed
Discharge Hose
Primary LCS Pump
Sump Area
6" Protective Gravel
Primary LCS 24" HDPE Pipe
LCS Gravel
24" Primary Liner Support Layer (Clay)
LCS Gravel
Secondary LCS 12" HDPE Pipe
6" Primary LCS HDPE Pipe
12" Gravel