

January 28, 2011

Ms. Susan Pelz, P.E.
Program Manager, Solid Waste
Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Dept. Of Environmental Protection
JAN 31 2011
Southwest District

**Re: Phase I Hot Spot Issue Response Plan – Phase II
Landfill Gas Header Damage and Repairs
Sarasota County Central County Solid Waste Disposal Facility
FDEP Permit No.: 130542-007-SO/01**

Dear Susan:

On behalf of Sarasota County Solid Waste Operations (County), HDR submits this letter to notify and provide repair details to the Florida Department of Environmental Protection (Department) regarding the damage discovered to the landfill gas collection and control system (LFGCCS) header pipe located on the south slope of Phase I at the Central County Solid Waste Disposal Complex.

BACKGROUND OF OCCURRENCE

As discussed in correspondences provided to the Department from HDR dated December 9, 2010, December 14, 2010, and January 12, 2011, Sarasota County discovered a hot spot in the location of the end of the LFGCCS header pipe on the south slope of Phase I at the CCSWDC. A response plan was provided to the Department which detailed the initial monitoring and corrective actions that were planned to address the hot spot. On January 24, 2011, Sarasota County, HDR, and SCS Field Services initiated Phase II of the response plan which included investigation of the condition of the landfill gas collection system piping in the subject area and completion of piping repairs as needed based on the visual inspection of the piping. On January 24, 2011, upon excavation of the area of the hot spot, damage to the 18-inch LFGCCS header was discovered, and Sarasota County provided notification via email to the Department regarding the damage and stated that a detailed report and notification would be provided to the County on or before January 31, 2011. The following summarizes the Phase II investigation, the damage discovered, the remedial measures taken and the time for repairs, and the methods used to prevent reoccurrence as required by Specific Condition Part C.6.b.

RESPONSE PLAN – PHASE II

As discussed in correspondence provided to FDEP on December 9, 2011, Phase I of the response plan was targeted at lowering the temperature within the Hot Spot to an acceptable range (e.g., 150 degrees F) that would allow investigation of the area. As shown in data provided in the January 12, 2011 correspondence to FDEP, the temperatures measured in the installed temperature probes (SW-1 through SW-13) and GW-26 were shown to be below 150 degrees F, therefore Sarasota County provided notification in the January 12, 2011 correspondence that Phase II of the response plan would be implemented to investigate the area and determine if any damage occurred to the LFGCCS system.

REMEDIAL MEASURES INCLUDING INVESTIGATION AND REPAIRS

On January 24, 2011, SCS Field Services (SCS) mobilized to the CCSWDC to perform the investigative excavation and repairs that may be needed to the LFGCCS piping. The work was observed by representatives of Sarasota County and HDR. Representative photos of the work are provided in Attachment A. Please note that the date in the time stamp for the photos is behind by one day. In addition, daily logs of the work activities prepared by HDR are provided in Attachment B.

SCS began excavation at the stand pipe which marked the end of the LFGCCS header on the south slope of Phase I. As shown in the photos provided in Attachment A, upon uncovering the 18-inch LFGCCS header line, it was found that the end of the line from the blind flange to about 6 feet down the pipe appeared to have been melted and burned. The 2-inch air line had some burn damage to the blind flange, while the 4-inch force main line appeared to have minor damage. The area around the landfill gas piping appeared to have ash and other remains which indicated that material had been smoldering and/or burned in this area; however, there was no indication of the elevated temperature during the excavation. It appeared that the potential smoldering or hot spot was no longer present.

SCS continued excavation of the header pipe to approximately 25 feet from the end of the header. It was determined through visual inspection of the pipe exterior and interior using a camera that the pipe was not circular, which was most likely due to softening of the pipe when the temperatures were elevated, causing the pipe to become elliptical. It was determined from the exterior and interior inspections that approximately 40 feet from the end of the pipe (blind flange), the pipe returned to a circular shape. Therefore it was determined that this section of piping including the 18-inch header, 4-inch force main, and 2-inch air supply line, should be removed and replaced with new piping. In addition, the 4-inch gas lateral, 4-inch condensate force main, and 2-inch air supply line, from the main header lines to GW-26 should also be replaced due to their proximity to the hot spot.

On January 25, 2011, SCS procured the required materials, pipe, fittings, and welding equipment to complete the pipe repairs. The 18-inch header pipe, tee and reducing fittings were welded onsite and placed in the trench to weld to the existing piping which was cut at

approximately 40 feet from the original end of the header line. The 18-inch pipe, 4-inch force main, and 2-inch air supply line in the header were replaced; the blind flanged ends wrapped, and the pipe backfilled. SCS field services prepared the bottom of the trench at 5% grade using a laser level and the piping was installed along the same line as the previous piping, therefore revisions to the LFGCCS as-built drawings are not required. The existing lateral lines to GW-26 from the header trench were removed and replaced with new lines and also backfilled. When completed, the area was backfilled by dozer and graded to match existing slope in the surrounding area.

The total time required for the investigation and repairs was 2 days.

RE-START AND CONTINUED MONITORING

As described in the response plan for Phase II, the County will re-open the portion of the LFGCCS which was closed as part of the Hot Spot response plan, leave GW-26 closed, and perform adjustments to the remaining wells. During this time the gas composition, vacuum pressure, temperature, and air supply line pressure will be monitored to determine if there are any further issues with the area.

METHOD TO PREVENT REOCCURENCE

From the information collected during the investigation an exact cause of the hot spot on Phase I cannot be ascertained at this time. From observation of the material removed during excavation and the damage to the LFGCCS piping it was apparent that a smoldering and/or a landfill fire had occurred in this area. The excessive heat from the localized hot spot damaged the LFGCCS piping which allowed air and vacuum to be introduced to the area thereby further increasing the elevated temperatures. Upon the County's discovery of the issue and immediate implementation of the remedial measures, the temperature in the area was reduced allowing investigation and repair of the piping. During the investigation and repairs it was noted that the surrounding soils were not hot and there was no visual evidence of landfill fire as would be indicated by smoke or smoldering of material. The LFGCCS piping was repaired and the area backfilled with soil. The gas extraction well temperatures in the area will continue to be monitored and the gas composition and air supply line pressure checked for any indication that the hot spot as reoccurred in this area or another area of the landfill.

CONCLUSION


Sarasota County implemented and completed Phase II of the hot spot response plan on January 24 and 25, 2011. The investigation resulted in discovery of damaged LFGCCS piping located at the end of the pipe and tie-in to the GW-26 lateral piping. The Department was notified via email by Sarasota County on January 24, 2011, and the repairs to the LFGCCS were completed by January 25, 2011. The installed piping was surveyed on January 26, 2011 and was found to have been installed in the location and

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approximate grades of the previous piping, therefore no changes to the LFGCCS as-built drawings are required. Sarasota County plans to continue operations of the LGCCS on the south slope of Phase I and monitor the area as described in the response plan.

Please call me at 813-270-8058 or Ms. Lois Rose of Sarasota County at 941-861-1589 if you have any questions or require additional information regarding this notification and report for completion of the LFGCCS piping repairs.

Sincerely,
HDR ENGINEERING, INC.

A handwritten signature in black ink, appearing to read 'R. Siemering', with a stylized flourish at the end.

Richard A. Siemering
Solid Waste Section Manager

Attachments (2)

cc: Lois Rose, Sarasota County
Gary Bennett, Sarasota County

ATTACHMENT A



Dept. Of Environmental Protection
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Southwest District

January 24, 2011 – Hot spot area prepared with soil berm.



01.23.2011 09:03

January 24, 2011 – Begin excavation of header pipe at marker pipe.



January 24, 2011 – Uncovered end of header piping, note damage to 18" header end.



January 24, 2011 – Removing damaged LFGCCS piping.



January 24, 2011 – Remove damaged header end, seal end of pipe and secure at end of day.



January 25, 2011 – Welding 18" Pipe and Fittings.



January 25, 2011 – Prepare bedding for piping at 5% grade using laser level.



January 25, 2011 – In-trench welding of 18" header piping.



January 25, 2011 – Completed ends of header piping.



January 25, 2011 – Welding lateral piping to GW-26.



January 25, 2011 – Completed lateral piping to GW-26 and tie-in to header lines.



January 25, 2011 – Excavation backfilled and graded to match slope.

ATTACHMENT B



Daily Field Report

Project Name: Sarasota County CCSWDC LFGCCS Header Repair	Date: 1/24/2011	Day: Monday
Project Owner: Sarasota County	Contractor: SCS Field Services (SCS)	
HDR Project No. 096-131412	CQA: Jason Timmons (HDR)	

Weather Conditions:

Temperature		Weather	Precipitation
Max.	Min.	Cloudy/most cloudy	None
73 F	44 F		

Contractor's Employees / Title		Equipment Used
Dennis Adams	Superintendent	Kobelco SK210 Excavator
Josh Adams	Laborer	F-150 Pickup Truck
Chris Boggs	Laborer	F-250 Pickup Truck
		Pipe Welding Trailer
		CAT 725 Off Road Truck (Veolia)

Work Performed:

- Arrived onsite at 8:00AM
- 8:30 AM - Project kickoff meeting with County and SCS Field Services
- 8:45 AM - Neff Rental arrives with Excavator
- 9:00 AM -- SCS begins excavation near stand pipe marking end of header line
- 10:30 AM - Uncovered end of 18" header pipe, 4" forcemain and 2" air line, and part of GW-26 laterals, continue to uncover piping
- 12:00PM - Lunch
- 1:00 PM - Continue to uncover header piping, SCS began removing stockpiled waste to working face, sent Chris Boggs to Mulberry to pick up HDPE pipe supplies and 18" welding equipment.
- 2:00 PM - Continue to uncover pipe to about 25 feet from pipe end.
- 3:00 PM - Camera truck arrives to video 18" header to check inside structure of pipe. Pipe appears to be good at about 27 feet from end.
- 5:00 PM - Clean up work area, cover waste in trench, cover and tape off pipe ends. SCS leaves site.



Daily Field Report

Project Name: Sarasota County CCSWDC LFGCCS Header Repair	Date: 1/25/2011	Day: Tuesday
Project Owner: Sarasota County	Contractor: SCS Field Services (SCS)	
HDR Project No. 096-131412	CQA: Jason Timmons (HDR)	

Weather Conditions:

Temperature		Weather	Precipitation
Max.	Min.	Cloudy/most cloudy	None
80 F	40F	Windy	

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Contractor's Employees / Title		Equipment Used
Dennis Adams	Superintendent	Kobelco SK210 Excavator
Josh Adams	Laborer	F-150 Pickup Truck
Chris Boggs	Laborer	F-250 Pickup Truck
		Pipe Welding Trailer, 18" Pipe Welder
		CAT 725 Off Road Truck (Veolia)
		CAT D4 Dozer (Veolia)

Work Performed:

- Arrived onsite at 6:00 AM, SCS setup
- 7:00AM - Locate fittings at County shop, weld reducing fitting for 18" to 4" transition for GW-26
- 8:00AM - Continue to excavate pipe to 45 feet from end of pipe, haul waste to working face
- 10:00 AM - Weld 18" pipe fitting including tee, reducer to 4", flange adaptor, attach blind flange and bolts
- 11:00 AM to 1:00PM - Install 18" header line (approximately 40 feet of pipe)
- 2:00PM - Weld 2" air line for header and lateral to GW-26, 4" forcemain for header and lateral to GW-26, 4" header from 18" to GW-26. Remove existing laterals to GW-26, and install 2" and 4" lines for next to header and laterals for GW-26. Begin Backfill of 18" header line.
- 4:00PM - Complete piping backfill.
- 5:00 PM - Cleanup site. End work.