

SALEM COUNTY IMPROVEMENT AUTHORITY

RESOLUTION 2020-07

January 9, 2020

**RESOLUTION OF THE SALEM COUNTY IMPROVEMENT AUTHORITY
AUTHORIZING THE LANDFILL MANAGER TO PROCEED TO OBTAIN QUOTES
AND COMPLETE AN EMERGENCY REPAIR TO THE METHANE GAS FLARE**

WHEREAS, maintenance and upkeep work on the methane gas flare is included in the Salem County Improvement Authority's Closure/Post-Closure plan that was previously submitted to the NJDEP for approval; and

WHEREAS, there has been excessive delay by the New Jersey Department of Environmental Protection ("NJDEP") in approval of the Closure/Post-Closure Plan and approval has not been received, through no fault of SCIA; and

WHEREAS, on or about Monday, December 30, 2019, a weak spot or "bubble" was discovered on the flare stack which presents a potentially hazardous and dangerous condition; and

WHEREAS, this bubble requires an emergency repair, as failure to do so would affect the public health, safety and welfare; and

WHEREAS, the methane gas flare is critical for the Salem County Improvement Authority ("SCIA") to be compliant with the NJDEP regulations as to the operation of the landfill. Safe and efficient operation of the flare is required per the SCIA operating permit. SCIA will be exposed to potential notices of violations and associated fines if it operates out of compliance with its Permit requirements; and


WHEREAS, the Landfill Manager shall immediately proceed to get quotes for completion of this repair; however, at this time the cost of this repair is unknown and therefore could exceed \$10,000;

WHEREAS, the SCIA Emergency Purchase Procedures Policy requires an authorizing Resolution for the necessary emergency repairs to the flare; and

NOW THEREFORE, BE IT RESOLVED by SCIA that the Landfill Manager be and the same is authorized obtain quotes for the flare repair.

NOW THEREFORE, BE IT FURTHER RESOLVED by the Salem County Improvement Authority that the Executive Director and Landfill Manager be and the same are authorized to complete the emergency repair to the methane gas flare.


Barry Davis, Secretary


Cordy Taylor, Chairman

CERTIFICATION

I hereby certify the above to be a true copy of a resolution adopted by the SCIA at a regular meeting held on January 9, 2020.


Barry Davis, Secretary

Julie Acton

From: Lodie Van Tonder
Sent: Monday, December 30, 2019 12:35 PM
To: Julie Acton
Subject: SCIA Flare
Attachments: 20191230_074027.jpg; 20191230-094842.jpg; 20191230-094904.jpg

Julie,

This morning I noticed A bulge on the side of the flare where the insulation failed.

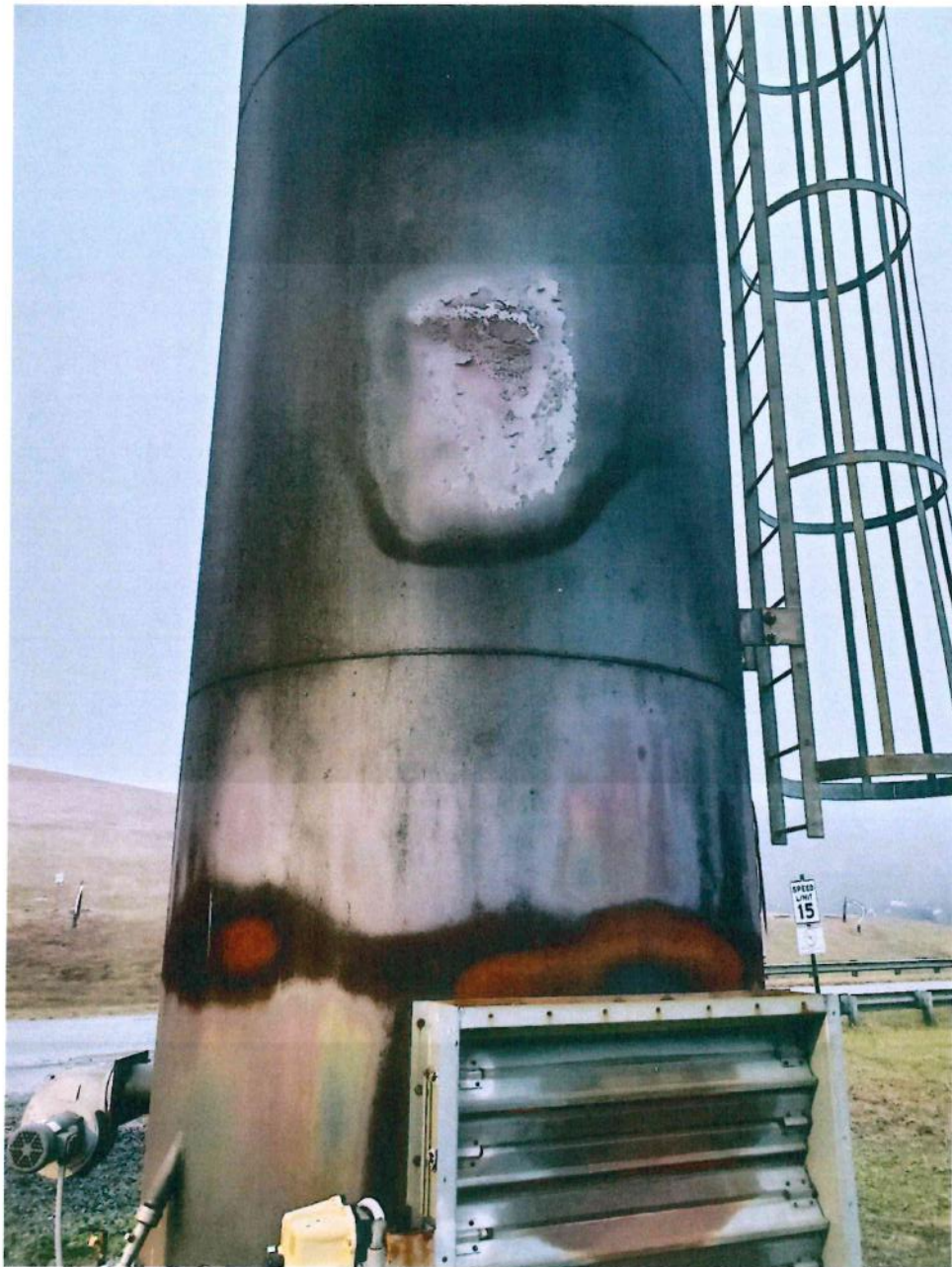
I spoke to Parnell Biogas this morning about it. Jeff Parker (Parnell) said we would need to cut out and replace the bulge and insulate the flare as soon as possible. I do not think we should wait until our Closure plan is approved.

See attached pictures.

Sincerely,

Lodie van Tonder

Landfill Manager
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January 8, 2020
File No. 02218820.00

Mrs. Julie Acton
Executive Director
Salem County Improvement Authority
52 McKillip Road, PO Box 890
Alloway, New Jersey 08001

Subject: 2020 Gas Collection System Expansion Design

Dear Julie:

Per our recent discussions, presented below is our proposal to provide the subject services relative to the landfill gas (LFG) collection system expansion at the Salem County Landfill.

TASK 1 – NEAR TERM ODOR CONTROL

Our understanding is that recent offsite odors from the landfill have resulted in one or more complaints from neighbors. Based on our recent site visit, it appears that active Cell 11 may be the source of odors since it does not yet have gas collection and because C&D material buried in this cell have the potential to generate hydrogen sulfide, an odorous compound. Gas collection is usually the best remedy to landfill odors because regardless of the odor source (leachate, working face waste, or gas emissions) gas is the vehicle that carries the odors into the atmosphere.

As a near-term effort to abate the current intermittent odors at the site, we recommend exploring the installation of one or two passive flares to capture the gas emissions currently venting from the leachate pump house piping at Cell 11. Leachate riser pipes extend down to the floor of the cell and serve as a conduit for gas collection. By connecting the leachate pipe vents to passive flares, odorous compounds would be destroyed. This may not solve all of the issues, but is a relatively quick and low cost first step.

Normally, NJDEP does not allow open flares; however, in this case we can apply for an Environmental Improvement Pilot Test (EIPT) permit. This allows 90 days of operation, plus a 90-day extension, which should be enough to provide some odor abatement while a more comprehensive gas collection system expansion is designed and bid. The effort for this initial task would include the following:

- Prepare and submit EIPT application and submit to NJDEP. There would be a fee required (less than \$1,000).
- Prepare design details for connecting the passive flares (two are assumed, but one might work with interconnecting pipework) to the leachate piping vents.
- Order the flares from a vendor (direct purchase by SCIA). These typically cost about \$4,500 each.
- Oversee installation by your staff, a contractor, or SCS.



TASK 2 – DESIGN AND BIDDING SERVICES

Objectives

The purpose of this task is to design an LFG collection system expansion. The system expansion is intended to accomplish the following objectives:

- Improve odor control
- Extend gas collection into Cell 11
- Upgrade existing gas system infrastructure including vacuum header sizing and configuration and expansion of gas well dewatering components (air and force main).

Approach

The general tasks to develop the design and bid documents include:

- Review information on existing gas system layout and performance, including:
 - Header configuration and sizing
 - Gas well depths, locations, liquid levels, and status (functioning or not)
 - Condensate management features
 - Gas flow rates and system vacuum distribution
 - Horizontal collector locations and status
 - Leachate system interconnections for gas collection
 - Hydrogen sulfide concentrations
- Estimate maximum future gas flows through LFG modeling
- Evaluate sufficiency of existing perimeter header network flow capacity using pipe head loss analysis.
- Identify where gas collection components are needed in new waste areas (Cell 11) or areas where wells or collector are not functional.
- Develop well layout and interconnecting pipe to minimize impact from future waste filling activities.
- Prepare site plans, piping profiles, and construction details.
- Prepare technical specifications, front end documents, and bid forms
- Prepare an engineer's estimate of construction costs.

Also under this task, SCS also will assist the Authority during the bidding process by performing the specific tasks below:

- Producing drawing sets and bid document packages for distribution to interested bidders. Reproduction and shipping costs will be covered by the fee charged to the bidders to purchase the documents and not billed to SCIA. Based on our experience with recent projects bid, most contractors request electronic documents that are transmitted without charge.
- Attend pre-bid conference.
- Preparing addenda as necessary to clarify the bid documents.
- Responding to bidder's questions in writing.

- Reviewing bids received and writing a memorandum to evaluate bids and comment on pricing as compared to the engineer's estimate.
- Assist SCIA in contacting references of the apparent low bidder, if necessary.

Work Products

The work products for this task include draft and final design drawings and bid documents, bidder communications, addenda (as needed), and the bid review memorandum. For budgeting purposes we assume three site visits will be required during this task.

TASK 3 – OPTIONAL CONSTRUCTION QUALITY ASSURANCE SERVICES

Objectives

The objectives of this task are to observe the LFG construction activities (gas collection system expansion) and to document that the installation is in accordance with the intent of the design.

Approach

Upon issuance of a Notice-to-Proceed to the selected contractor, SCS will provide construction engineering and construction quality assurance (CQA) services during installation of the LFG collection system expansion. Specific activities are anticipated to be as follows:

- Observe system construction activities to verify general compliance with construction documents and permit requirements. The onsite representative will be in contact with the project engineer or manager on a daily basis to coordinate efforts and answer questions that may arise regarding the intent of the design.
- Observe construction, resolve questions or problems, prepare sketches, etc. SCS' on-site representative will provide these services on a full time basis during construction. Our experience is that contractors typically work 10-hour days and that particularly during well drilling full time observation is imperative.
- Attend the pre-construction conference, substantial completion inspection, and the final close-out meeting and prepare and distribute meeting minutes and punch list(s) (as appropriate) to meeting attendees. These specific meetings will be attended by both the project manager and SCS' on-site representative. The on-site representative also will coordinate and participate in routine progress meetings to be scheduled during the project. The project manager may also attend a progress meeting if a design modification or changed condition needs to be addressed.
- Coordinate interpretations of plans and specifications with Contractor and Owner.
- Review shop drawings, catalog cuts, and material submittals; other technical submissions; and, contractor substitution requests for compliance with contract requirements and recommend approval or rejection based on technical, contractual, and functional adequacy. Distribute approved submittals and/or review comments to appropriate parties.

- Review and evaluate Contractor change order proposals and alternatives concerning the LFG system for technical adequacy, impact on other work items, and provide recommendations for implementation.
- Review Contractor applications for payment.
- Provide SCIA with daily logs, meeting minutes, copies of submittal and RFI communications, and other documentation as appropriate. At the end of the project, construction documentation will be compiled in a binder and submitted to SCIA with the as-built drawings.

Work Products

Documentation of the work will include a construction certification report comprised of the following sections:

- Description of the Work
- Construction Photographs
- Well Logs
- Field Notes/Daily Logs
- Air Pressure (Pipe Leak) Test Logs
- As-built Drawings

The field surveying to produce the as-built conditions will be performed by the contractor.

FEE

SCS will perform these service on a fixed fee basis in accordance with our contract terms and conditions and current fee schedule. The fixed fee amounts by task are as follows:

- | | |
|-------------------|----------|
| • Task 1 | \$6,950 |
| • Task 2 | \$21,875 |
| • Optional Task 3 | Pending |

We appreciate this opportunity to work together with you on this important project. If you have any questions or need additional information, please contact Eric Peterson at 609.654.4000.

Sincerely,



Justin Stevenson, EIT
Senior Project Professional
SCS Engineers



Eric R. Peterson, P.E.
Project Director
SCS Engineers