

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 1, 2014

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Walter Stone
NRG Corporation
1000 Main Street
Houston, Texas 77002

Re: Request for Action Plan regarding NRG Power Midwest LP- Cheswick Power Station

Dear Mr. Stone,

On September 27, 2012 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the NRG Power Midwest LP- Cheswick Power Station facility. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled CCRs. We thank you and your staff for your cooperation during the site visit. Subsequent to the site visit, EPA sent you a copy of the draft report evaluating the structural stability of the units at the NRG Power Midwest LP- Cheswick Power Station facility and requested that you submit comments on the factual accuracy of the draft report to EPA. Your comments were considered in the preparation of the final report.

The final report for the NRG Power Midwest LP- Cheswick Power Station facility is attached.

This report includes a specific condition rating for the CCR management units and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundments located at the NRG Power Midwest LP- Cheswick Power Station facility. These recommendations are listed in Enclosure 1.

Since these recommendations relate to actions which could affect the structural stability of the CCR management units and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority. Therefore, we request that you inform us on how you intend to address each of the recommendations found in the final report. Your response should include specific plans and schedules for implementing each of the recommendations. If you will not implement a recommendation, please provide a rationale. Please provide a response to this request by **May 2, 2014**. Please send your response to:

Mr. Stephen Hoffman
U.S. Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW

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If you are using overnight or hand delivery mail, please use the following address:

Mr. Stephen Hoffman
U.S. Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Drive
5th Floor, N-5838
Arlington, VA 22202-2733

You may also provide a response by e-mail to hoffman.stephen@epa.gov, dufficy.craig@epa.gov, kelly.patrickm@epa.gov and englander.jana@epa.gov.

You may assert a business confidentiality claim covering all or part of the information requested, in the manner described by 40 C. F. R. Part 2, Subpart B. Information covered by such a claim will be disclosed by EPA only to the extent and only by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, the information may be made available to the public by EPA without further notice to you. If you wish EPA to treat any of your response as “confidential” you must so advise EPA when you submit your response.

EPA will be closely monitoring your progress in implementing the recommendations from these reports and could decide to take additional action if the circumstances warrant.

You should be aware that EPA will be posting the report for this facility on the Agency website shortly.

Given that the site visit related solely to structural stability of the management units, this report and its conclusions in no way relate to compliance with RCRA, CWA, or any other environmental law and are not intended to convey any position related to statutory or regulatory compliance.

Please be advised that providing false, fictitious, or fraudulent statements of representation may subject you to criminal penalties under 18 U.S.C. § 1001.

If you have any questions concerning this matter, please contact Mr. Hoffman in the Office of Resource Conservation and Recovery at (703) 308-8413. Thank you for your continued efforts to ensure protection of human health and the environment.

Sincerely,
/Barnes Johnson /, Director
Office of Resource Conservation and Recovery

Enclosures

NRG Power Midwest LP- Cheswick Power Station Recommendations (from the final assessment report)

CONCLUSIONS

Bottom Ash Recycle Pond

Based on the ratings defined in the USEPA Task Order Performance Work Statement (Satisfactory, Fair, Poor and Unsatisfactory), the information reviewed and the visual assessment, the overall condition of the Bottom Ash Recycle Pond is considered to be **FAIR**. Acceptable performance is expected under all loading conditions, but some minor deficiencies were identified that require repair/maintenance.

Minor deficiencies include the following:

- There is poor vegetation cover over the inboard slopes which are experiencing some minor rill erosion.
- Ponding along the crest is undesirable.
- Stormwater runoff entering the pond is undesirable given that no analysis has been performed to demonstrate containment of the appropriate design storm if runoff is allowed to enter the pond.
- Areas of poor vegetation cover on the outboard slopes of both ponds, which have resulted in some erosion.
- Presence of some animal burrows.

Emergency Ash Pond

Based on the ratings defined in the USEPA Task Order Performance Work Statement (Satisfactory, Fair, Poor and Unsatisfactory), the information reviewed and the visual assessment, the overall condition of the Emergency Ash Pond is considered to be **FAIR**. Acceptable performance is expected; however, some deficiencies exist that require repair/maintenance.

Minor deficiencies include the following:

- There is poor vegetation cover on the eastern and southern embankments and erosion on the eastern embankment.
- There is poor vegetation cover over the inboard slopes which are experiencing some minor rill erosion.
- The use of concrete jersey barriers as vehicle barriers along the west access drive may contribute to erosion along the west inboard slope. Stormwater runoff from the adjacent hillside collected behind the barriers flows through gaps between the concrete units to the inboard slope below as concentrated flow.
- Stormwater runoff entering the pond is undesirable given that no analysis has been performed to demonstrate containment of the appropriate design storm if runoff is allowed to enter the pond.
- Ponding along the crest is undesirable.

Maintenance and improvement measures that should be addressed in the near future include the following:

- Supplementing vegetation cover on the outboard and inboard slopes to reduce erosion.
- Filling low areas in the crest to reduce stormwater ponding.
- Moving or replacing Jersey barriers along the Emergency Ash Pond's western inboard slope to prevent possible erosion from concentrated flow.
- Construction or maintenance of perimeter berms to prevent stormwater runoff from upgradient areas entering the ponds.

NRG has implemented remedial measures in the past year to address embankment vegetation deficiencies and performs routine maintenance which appears to be sufficient to keep the impoundments in good working order.

Additionally, NRG has implemented regular visual inspections for perimeter embankment seeps, cracks, holes, and freeboard. NRG's inspections and regular monitoring are performed with the

goal of identifying, documenting, and repairing any new deficiencies early so that they do not develop into more serious problems.

The Cheswick plant's staff maintains design and construction documents and inspection reports in a well organized manner for future reference. Based on these findings, O'Brien & Gere is of the opinion that the operations and maintenance procedures being practiced at the subject impoundments are satisfactory.

RECOMMENDATIONS

Based on the findings of our visual assessment and review of the available records for the Bottom Ash Recycle Pond and Emergency Ash Pond, O'Brien & Gere recommends that additional maintenance of the embankments be performed to correct the erosion, drainage, and other miscellaneous deficiencies cited above. In addition, it is recommended that the facility establish new or augment existing perimeter ponds to divert stormwater runoff, as no analysis was available to demonstrate that stormwater runoff does not enter the pond or can be contained by the pond during an appropriate design storm. Storage capacity is available to prevent overtopping assuming that the water level in the Emergency Pond is maintained at a low level per normal operations and appreciable runoff is diverted away from the ponds.

URGENT ACTION ITEMS

None of the recommendations are considered to be urgent, since the issues noted above do not appear to threaten the structural integrity of the dikes in the near term.

LONG TERM IMPROVEMENT

The deficient conditions observed during the assessment do not require immediate attention, but should be implemented in the near future as part of a regular maintenance plan. The recommended maintenance/improvement actions are provided below:

Bottom Ash Recycle Pond

- Enhance vegetation cover on outboard and inboard slopes where required to reduce erosion.
- Fill low areas on crest to reduce stormwater ponding and direct runoff away from the pond.
- Establish new or augment existing perimeter berms around the ponds to divert runoff away from the pond.

Emergency Ash Pond

- Enhance vegetation cover on outboard and inboard slopes where required to reduce erosion.
- Fill low areas on crest to reduce stormwater ponding and direct runoff away from the pond.
- Relocate concrete Jersey barriers to prevent concentrated flow onto west inboard slope.
- Establish new or augment perimeter berms around the ponds to divert runoff away from the pond.

MONITORING AND FUTURE INSPECTION

O'Brien & Gere recommends continued internal inspections by personnel trained in dam safety and periodic inspections by independent licensed dam safety engineers on at least a biennial basis until the ponds are formally closed.

TIME FRAME FOR COMPLETION OF REPAIRS/IMPROVEMENTS

Based on the findings of this assessment, O'Brien & Gere believes that NRG is addressing maintenance and deficiency repairs in a proactive manner and within a reasonable time frame. We recommend that the owner continue this good practice going forward.