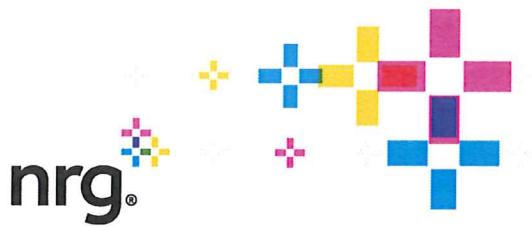


US EPA ARCHIVE DOCUMENT



NRG Energy
121 Champion Way, STE 300
Canonsburg, PA 15317
Phone: 724-597-8310

May 5, 2014

Transmitted via E-mail

Mr. Stephen Hoffman
U.S. Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: **Action Plan to Address Recommendations**
Dam Safety Assessment of CCW Impoundments
NRG Power Midwest LP – New Castle Generating Station
West Pittsburg, Pennsylvania

Dear Mr. Hoffman:

As requested in your April 3, 2014 Letter, NRG Power Midwest LP (NRG) – New Castle Generating Station (New Castle) is providing a summary of our action plan for measures to address recommendations associated with the Coal Combustion Waste (CCW) management units. Our response includes our plans and schedules for implementing each of the recommendations outlined in Enclosure 1 of the April 3rd Letter.

Conclusions and Recommendations

According to the assessment, acceptable performance is expected under all loading conditions, but some minor deficiencies were identified that require repair/maintenance of the North and South Ash Ponds. None of the recommendations were considered to be urgent, since the issues do not appear to threaten the structural integrity of the ash pond embankments in the near term. The following maintenance and improvement measures were identified in the report:

North Ash Pond

- Crest:
 - Fill ruts on crest as needed. Consider the use of crushed stone in lieu of compacted ash to provide a more stable driving surface.

- Consider re-establishing vegetative cover on the crest where feasible (i.e., where regular vehicle access is not required).
- Consider use of an alternate vehicle barrier to the existing Jersey barrier system to reduce concentration of stormwater runoff from access drives or install erosion protection measures on the inboard slopes.
- Inboard slopes:
 - Monitor all inboard slopes for signs of erosion. Repair in accordance with an engineered design.
 - Consider regrading and revegetating the inboard slopes above the waterline to reduce erosion due to stormwater runoff.
- Additional studies:
 - Perform a hydrologic and hydraulic analysis of the impoundment for the 1-year through 100-year, 24-hour duration design storm events to confirm that adequate freeboard is available during normal operating conditions.

South Ash Pond

- Overall:
 - Maintain the current operation of the South Ash Pond as storage for stormwater runoff only. If resumed, the impoundment of bottom ash within the South Ash Pond may require additional studies and engineering analysis.
- Crest:
 - Fill ruts on crest as needed. Consider the use of crushed stone in lieu of compacted ash to provide a more stable driving surface.
 - Consider re-establishing vegetative cover on the crest where feasible.
 - Consider use of an alternate vehicle barrier to the existing Jersey barrier system to reduce concentration of stormwater runoff from access drives or install erosion protection measures on the inboard slopes in accordance with an engineered design.
- Inboard slopes:
 - Repair erosion of the slope beneath the former bottom ash discharge piping.
 - Monitor all inboard slopes for signs of continuing erosion. Repair in accordance with an engineered design.
 - Consider regrading and revegetating the inboard slopes above the waterline to reduce erosion due to stormwater runoff.

- Outboard slopes:
 - Increase maintenance activities to control vegetation on the outboard slope of the southern embankment above the McKee Run to facilitate visual inspection of the slope for signs of erosion, movement, or seepage.
- Additional studies:
 - Perform a hydrologic and hydraulic analysis of the impoundment for the 1-year through 100-year, 24-hour duration design storm events to confirm that adequate freeboard is available during normal operating conditions. The analysis should include consideration of the volume of excess inflow from the coal pile sedimentation basin stored in the impoundment during a storm event.
 - Perform a hydrologic and hydraulic analysis of the Beaver River and McKee Run at the location of the South Ash Pond and Outfall 004 in order to determine the 100-year flood elevation and its impacts on the South Ash Pond.

O'Brien & Gere recommended that the maintenance activities to control vegetation be implemented in the Spring of 2014. O'Brien & Gere indicated that the remaining improvements, surveys, engineering and repairs may be required or may be rendered moot by an overall closure plan for the impoundments if the anticipated plant conversion to natural gas occurs as scheduled in 2016. Completion of these items may be deferred until that time, unless long-term continued operation of the plant as a coal-fired generating station is anticipated.

Action Plan

New Castle has developed the following action plan to address the above maintenance and improvement measures:

North and South Ash Ponds

Crest:

The ruts on crest of both ponds will be filled as needed in the second quarter of 2014. New Castle will install crushed stone in lieu of compacted ash in a few test areas and evaluate the performance during the third quarter 2014 to provide a more stable driving surface.

Seed and fertilizer will be placed directly on the crest of both ponds in May 2014 to establish a vegetative cover, where feasible (i.e., where regular vehicle access is not required). The performance of this method of

establishing cover will be evaluated through the third quarter of 2014 to determine if the placement of soil may be necessary to obtain good cover.

New Castle considered the use of an alternate vehicle barriers to the existing Jersey barrier system to reduce concentration of stormwater runoff from access drives, but has elected to retain and maintain this system. The existing system will be inspected and adjusted to minimize gaps between or beneath the barriers to limit embankment erosion. Any existing erosion will be repaired in the second quarter of 2014. New Castle will continue to routinely inspect the barriers; and for those that show evidence of storm water flow between barriers with the potential for erosion, we will install erosion protection measures on the inboard slopes.

Inboard slopes:

New Castle will continue to monitor all inboard slopes of both ponds for signs of erosion and repair as necessary. The erosion of the slope beneath the South Ash Pond discharge piping will be repaired in the second quarter of 2014.

Seed and fertilizer will be placed directly on the inboard slopes of both ponds above the waterline in May 2014 to establish a vegetative cover. The performance of this method of establishing cover will be evaluated through the third quarter of 2014 to determine if the placement of soil may be necessary to obtain good cover.

The New Castle Station will initiate work in May 2014 to remove tall woody vegetation on the outboard slope of the southern embankment above McKee Run to facilitate visual inspection of the slope for signs of erosion, movement, or seepage. A routine monitoring plan will be established to control the woody vegetation.

Additional studies:

New Castle Station plans to continue to limit the use of the South Ash Pond to non CCW wastewaters. At this time, the New Castle Station does not plan to continue to operate the North Ash Pond after the gas conversion in 2016. Therefore, the hydrologic and hydraulic analysis of the impoundments and of the Beaver River and McKee Run will not be conducted unless we plan to continue operation of these ponds for CCW.

New Castle will continue to address the above issues in a proactive manner as necessary as part of the annual pond cleanings.

Monitoring and Future Inspection

O'Brien & Gere recommends consideration of independent inspections by licensed dam safety engineers on at least a biennial basis. Future inspections may be required by the Pennsylvania Department of Environmental Protection should they determine that these impoundments will be regulated in the future.

New Castle has implemented regular visual inspections for perimeter embankment seeps, cracks, holes, and freeboard. New Castle's inspections and regular monitoring are performed with the goal of identifying, documenting, and repairing any new deficiencies so that they do not develop into more serious problems.

NRG plans to convert the New Castle Generating Station to natural gas in 2016. As a result, New Castle has no long-term plans for continued operation of the ponds as CCW impoundments. Therefore, NRG does not plan to have independent inspections conducted by a licensed dam safety engineer on a biennial basis at this time. New Castle will contract with a Pennsylvania professional engineer trained in dam safety in the future if any evidence of structural deficiencies are identified as part of the routine visual inspections. In addition, if the Pennsylvania Department of Environmental Protection determines that these impoundments are regulated under Title 25 Pennsylvania Code Chapter 105 (Dam Safety and Waterway Management), New Castle will inspect the impoundments in accordance with these requirements.

Please do not hesitate to contact me at (724) 597-8310 if you have any questions or require additional information.

Respectfully Submitted,



Stephen M. Frank, P.E.
Senior Environmental Specialist

cc: Ethan Russell, Plant Manager, New Castle Generating Station

Fri 6/6/2014 4:56 PM

From: Frank, Stephen Stephen.Frank@nrgenergy.com

RE: Coal Ash Site Assessment At NRG Power Midwest LP- New Castle Generating Station

To: Englander, Jana <Englander.Jana@epa.gov>

Cc: Hoffman, Stephen <Hoffman.Stephen@epa.gov>; Dufficy, Craig <Dufficy.Craig@epa.gov>; Kelly, PatrickM <Kelly.PatrickM@epa.gov>; Stone, Walter <Walter.Stone@nrgenergy.com>; Crowningshield, Maria <Maria.Crowningshield@nrgenergy.com>; Russell, Ethan M <Ethan.Russell@nrgenergy.com>

Jana,

Following review of the final report, FEMA Maps, and multiple discussions with our consultants, the New Castle station plans to enter a contract with a consultant to first, study whether floodwaters overtopping the embankments would negatively affect the functionality of the North and South Ash Ponds outlets such that ash might be released to the stream. This study may take between 5 to 9 weeks depending on whether or not geotechnical information must be collected in the field for this study.

According to the FEMA Maps, base flood elevations have not been determined for this area. Therefore, if the study concludes that there is a potential for ash to be released from the ponds, then we will conduct the hydrologic/hydraulic analyses to determine the flood elevation at the impoundments and evaluate the potential for floodwaters to overtop the embankment and fill the ash ponds during various design storm events as mentioned in the report.

To minimize the quantity of CCW in the impoundments, CCW will continue to be removed on an annual basis in accordance with Pennsylvania residual waste regulations. To minimize stress on the structural components, we will also maintain more than approximately 4 feet of freeboard in both impoundments. We will also evaluate whether modifications to existing operating conditions (e.g., more or less freeboard, ash quantity, berm height) would minimize risks during flood conditions so that appropriate adjustments could be made during an impending flood.

At this time, we do not anticipate closing the impoundments in 2016, but we do plan to discontinue adding CCW in April and remove the CCW later in 2016.

Please do not hesitate to contact me with any questions.

Thank you, Steve



Stephen M. Frank, PE
Senior Environmental Specialist
Office: 724-597-8310
Mobile: 724-249-3610

From: Englander, Jana [<mailto:Englander.Jana@epa.gov>]

Sent: Thursday, May 08, 2014 11:55 AM

To: Frank, Stephen

Cc: Hoffman, Stephen; Dufficy, Craig; Kelly, PatrickM; Stone, Walter; Crowningshield, Maria; Russell, Ethan M

Subject: RE: Coal Ash Site Assessment At NRG Power Midwest LP- New Castle Generating Station

Hi Steve,

Thank you for your letter dated May 5, 2014 in response to EPA's request for action plan for the New Castle facility recommendations dated April 3, 2014. NRG Energy has developed an action plan that addresses all the recommendations requested in the final report and we do note that the report indicated that a number of recommendations would be rendered moot with the anticipated conversion to natural gas scheduled in 2016. In retrospect, however, with regard to not performing a hydrologic and hydraulic analysis of the North Ash Pond and the South Ash Pond and Outfall 004 in order to determine the 100-year flood elevation and its impact on the these ponds, we have some concern over the length of period of time from now until 2016 without this analyses conducted. We would request that NRG Energy reduce the pool elevation in each pond to reduce overstressing the structural components of the impoundments. There is concern that an extreme hydrological event could put the public safety at some risk, even though we do recognize the hazard potential ratings of low.

In addition, EPA would also request that NRG Energy submit its proposed schedule to EPA on the formal closure plan with the state for the removal of the ash ponds from service in 2016. Please submit any correspondence you have between your company and the state documenting the commencement of the closure process.

Thank you very much.

Regards,

Jana

Jana Englander

Office of Resource Conservation and Recovery,
Materials Recovery Waste Management Division
Energy Recovery and Waste Disposal Branch
U.S. Environmental Protection Agency
703-308-8711

From: Frank, Stephen [<mailto:Stephen.Frank@nrgenergy.com>]

Sent: Monday, May 05, 2014 4:13 PM

To: Englander, Jana

Cc: Hoffman, Stephen; Dufficy, Craig; Kelly, PatrickM; Stone, Walter; Crowningshield, Maria; Russell, Ethan M

Subject: RE: Coal Ash Site Assessment At NRG Power Midwest LP- New Castle Generating Station

Jana,

As requested, we have prepared the attached response to the January 17, 2014 New Castle Generation Station CCW Report.

Please do not hesitate to contact me with any questions.

Thank you, Steve



Stephen M. Frank, PE
Senior Environmental Specialist
Office: 724-597-8310
Mobile: 724-249-3610

From: Englander, Jana [<mailto:Englander.Jana@epa.gov>]

Sent: Thursday, April 03, 2014 9:25 AM

To: Frank, Stephen; Stone, Walter; Crowningshield, Maria

Cc: Hoffman, Stephen; Dufficy, Craig; Kelly, PatrickM; Englander, Jana

Subject: Coal Ash Site Assessment At NRG Power Midwest LP- New Castle Generating Station

Dear Mr. Stone,

Please find attached a letter from USEPA which lists the recommended course(s) of action resulting from the Coal Ash Site Assessments at NRG Power Midwest LP- New Castle Generating Station. EPA would appreciate it if you would respond to us by May 5, 2014 indicating how your company intends to implement the recommendations noted in the

final site assessment of your facility. Please confirm receipt of this email and send your response to:

Mr. Stephen Hoffman
US Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

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

Mr. Stephen Hoffman
US Environmental Protection Agency
Two Potomac Yard
2733 South Crystal Drive
5th Floor, N-5237
Arlington, VA 22202-2733

You may also provide your 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.

The final report can be accessed at the secured link below. **The secured link will expire on May 30, 2014.**

Here is the link for the report:
<http://www.hightail.com/download/eINJc2ZFNXZEbUxtcXRVAq>

Please let me know if you have trouble accessing the report or have any questions/requests.

Respectfully,

Jana Englander

Jana Englander

Office of Resource Conservation and Recovery,
Materials Recovery Waste Management Division
Energy Recovery and Waste Disposal Branch
U.S. Environmental Protection Agency
703-308-8711