

US EPA ARCHIVE DOCUMENT



May 12, 2009

Mr. Richard Kinch
United States Environmental Protection Agency (5306P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

SUBJECT: Request for Information Under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)
Somerset Electric Generating Station
Somerset, Massachusetts

Dear Mr. Kinch:

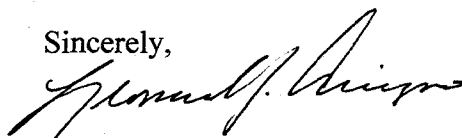
Somerset Power LLC ("Somerset") hereby provides to the United States Environmental Protection Agency ("EPA") information and documentation in response to the above-referenced Request for Information ("ROI") regarding Somerset Electric Generating Station (the "the Station"). The Station received the ROI on May 1, 2009. As requested, Somerset is submitting this response to the ROI to EPA within ten business days of receipt. Enclosed as an attachment to this letter are Somerset's responses to the ROI regarding each of the coal combustion by-product waste management units at the Station. Each individual information request is set forth in *italics* followed by Somerset's response.

It should be noted that Somerset does not view the solid waste management units ("SWMUs") at the subject facility as coal ash management ponds. However, Somerset has taken a conservative approach and included the SWMUs that manage liquid borne coal ash in its response because of EPA's broad interpretation of "surface impoundment." The Station uses concrete sumps or small basins for the management of various plant waste water streams that contain minor amounts of coal ash residuals. The solids (flyash and bottom ash) that settle out of this wastewater are either beneficially re-used or placed in dry landfills.

I hereby certify that the information contained in this response to the ROI and the accompanying documents is true, accurate and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system and of those persons directly responsible for gathering the information, to the best of my knowledge the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

If you have questions regarding the submittal information, please contact me at (508) 235-2004.

Sincerely,

A handwritten signature in black ink, appearing to read "Leonard J. Ariagno". The signature is fluid and cursive, with a large initial "L" and a stylized "A".

Leonard J. Ariagno
Plant Manager

ATTACHMENT A

Waste Water Treatment Plant ("WWTP") and Equalization Basin ("EB") Somerset Electric Generating Station

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit does not have a rating, please note that fact.

The EB is a below grade concrete basin, and therefore, has no rating because it is not subject to the provisions of the Massachusetts Dam Safety Program in Section 3.02 CMR 10.0 ("Dam Safety Program"). The EB unit itself is integral to the Station's WWTP and holds Station effluent water (influent to) the WWTP for processing which is regulated by the Massachusetts Department of Environmental Protection as part of the State Pollution Discharge Elimination System ("SPDES").

2. What year was each management unit commissioned and expanded?

The EB was constructed as part of the original Station construction during 1923-1925, and subsequently modified during the Station's coal reconversion of 1982-1984.

3. What materials are temporarily or permanently contained in the unit? Use the following categories to respond to this question: (1) fly ash; (2) bottom ash; (3) boiler slag; (4) flue gas emission control residuals; (5) other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).

The WWTP EB contains primarily fines from coal bottom ash and "other" entrained waste stream materials from in-plant floor drains; known as effluent water. In aggregate the waste water and materials in suspension serve as influent to the WWTP for processing.

Based on the April 24, 2008 WWTP water balance diagram, "other" effluent to the WWTP EQ are: bottom ash pump seal water, ash truck wash, boiler DI make-up, floor and equipment drains, APH wash water, and coal pile run-off sump water. The solids that accumulate in the bottom of the unit are periodically removed and disposed of in a permitted off-site disposal facility.

4. Was the management unit(s) designed by a Professional Engineer? Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

Currently, the Station has no documentation to support that the original 1923-1925 EB unit design was completed by a Professional Engineer ("PE"). However, the Station does have a 1983 design and construction drawing stamped by a Commonwealth of MA registered PE for modification work completed during the 1982-1984 coal reconversion. All original design and construction work was performed by Stone & Webster Engineering Corporation ("SWEC") beginning in 1923 through the most recent 1984 coal reconversion work for the entire facility. Ongoing inspection of the EB unit is not done by a PE.

5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

The last structural integrity evaluation of the EB unit was completed during the Station's 1982-1984 coal reconversion. The coal reconversion design and construction work was completed by SWEC. SWEC was the engineer responsible for all original design and construction work at the Station, as well as subsequent unit coal reconversion. The modification work done by SWEC during the 1982-1984 period was inspection, repair, and modification of the EB internal surfaces and installation of new pumps.

On an annual basis, the EB is pumped-down and residual ash is removed for routine cleaning and a visual integrity inspection is performed by Station personnel.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation.

The Station has no record of any state or federal structural integrity assessments made to the EB unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or are being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.

The Station has no record of any state or federal structural integrity assessments made to the EB unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material currently stored in each of the management unit(s). Please provide the date that the volume measurement was taken. Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.

On a surface area basis, the EB unit is 50ft-1in. x 29ft-2in., which equates to 1,460.8 ft², or 0.0335 acres. When full, the EB unit will hold 145,374 gal. This is based on ((50ft-1in x 29ft-2in x 15ft-6in) – (29ft-2in x 11ft-10in x 7ft)) which yields 20,227.35ft³, and on conversion based on 7.48 gal/ft³ yields 151,301 gal.

It is estimated that 32,782 gal of solids would exist within the EB on average.

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater).

There have been no known spills or unpermitted releases from the unit in the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

The legal owner is Somerset Power LLC. The Station operator is Somerset Operations Inc.

ATTACHMENT B
South Pond ("SP")
Somerset Electric Generating Station

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit does not have a rating, please note that fact.

The SP is a below grade asphalt-lined pond, and therefore has no rating because it does not meet the applicability provisions of the Massachusetts Dam Safety Program. The SP unit itself is integral to the Station's WWTP and holds station effluent water (influent to) the WWTP for processing which is regulated under the Station's NPDES Permit.

2. What year was each management unit commissioned and expanded?

The SP was constructed as part of the Station coal reconversion of 1982-1984.

3. What materials are temporarily or permanently contained in the unit? Use the following categories to respond to this question: (1) fly ash; (2) bottom ash; (3) boiler slag; (4) flue gas emission control residuals; (5) other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).

The SP contains fines from coal bottom ash in liquid solution. This water based product with fines in suspension serves as influent to the WWTP for processing. The solids (residual bottom ash) that accumulate in the bottom of the unit is periodically removed and disposed of in an offsite permitted disposal facility.

4. Was the management unit(s) designed by a Professional Engineer? Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

The Station does have a 1983 design and construction drawing stamped by a Commonwealth of Massachusetts registered PE for the design and construction of the SP work completed during the coal reconversion.

5. *When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?*

The last structural integrity evaluation of the SP unit was completed during the 1982-1984 plant coal reconversion, during its original construction. The coal reconversion design and construction work was completed by SWEC. SWEC was the engineer responsible for all original design and construction work at the Station, as well as subsequent unit coal reconversion.

Periodically, when needed during the Summer, the SP is de-watered and residual ash is removed for routine cleaning. A visual integrity inspection of the asphalt liner is performed by Station personnel at such times.

6. *When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation.*

The Station has no record of any State or Federal structural integrity assessments made to the SP unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

7. *Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or are being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.*

The Station has no record of any State or Federal structural integrity assessments made to the SP unit, as it would not be subject to the provisions of the Massachusetts Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

8. *What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material currently stored in each of the management unit(s). Please provide the date that the volume measurement was taken. Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.*

The total maximum volume of the SP is 770,000 gal and is based on the original design volume, whereas the average volume is 550,000 gal with an estimated surface area of 9,191ft², or 0.211

acres. On average it is estimated that of the 550,000 gal average volume, that 150,000 gal are solids, or ash fines.

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater).

There have been no known spills or unpermitted releases from the unit in the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

The legal owner is Somerset Power LLC. The Station operator is Somerset Operations Inc.

ATTACHMENT C
North Lift Pit ("NLP")
Somerset Electric Generating Station

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit does not have a rating, please note that fact.

The NLP is a below grade concrete basin, and therefore has no rating because the unit does not meet the applicability provisions of the Dam Safety Program. The NLP unit itself is integral to the Station's bottom ash system. It serves dual purposes of providing water for boiler bottom ash sluicing and boiler tub seal refractory cooling. Flow into the NLP is from the bottom ash system surge tank. Thus, this is part of a closed-loop system.

2. What year was each management unit commissioned and expanded?

To the best of Somerset's knowledge, the NLP was first installed during the 1970s as a formed concrete pit, and subsequently expanded and modified by the previous owner during the Station's coal reconversion of 1982-1984.

3. What materials are temporarily or permanently contained in the unit? Use the following categories to respond to this question: (1) fly ash; (2) bottom ash; (3) boiler slag; (4) flue gas emission control residuals; (5) other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).

The NLP contains primarily fines from coal bottom ash in suspension with bottom ash system sluicing water. The water and bottom ash fines are used for boiler sluicing and refractory cooling of the boiler tub seal.

4. Was the management unit(s) designed by a Professional Engineer? Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

To the best of Somerset's knowledge, the original 1970s concrete pit was designed by a PE as during that time period the Station had its own plant engineering staff, several of whom were registered PEs within the Commonwealth of Massachusetts. During the 1982-1984 coal reconversion the original concrete pit was modified and expanded to what now constitutes the NLP. This work is believed to have been done by Station staff, but no drawings could be located.

5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

There has been no formal inspection of the NLP integrity. Periodically, the NLP is emptied during planned unit maintenance outages and any residual ash is removed from the NLP bottom floor. During such work the interior NLP surfaces are visually inspected for evidence of surface degradation or spalling of concrete, none of which has been previously identified.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation.

The Station has no record of any State or Federal structural integrity assessments made to the NLP unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or are being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.

The Station has no record of any State or Federal structural integrity assessments made to the NLP unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material currently stored in each of the management unit(s). Please provide the date that the volume measurement was taken. Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.

On a surface area basis, the NLP unit is 20ft x 12ft-6in., which equates to 250 ft², or 0.006 acres. When full, the EB unit will hold 13,091 gal. This is based on (20ft x 12ft-6in x 7ft) which yields 1,750ft³, and on conversion based on 7.48 gal/ft³ yields 13,091 gal.

On average, it is estimated that there are 312 gal of solids in the form of ash fines in the NLP.

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater).

There have been no known spills or unpermitted releases from the unit in the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

The legal owner is Somerset Power LLC. The Station operator is Somerset Operations Inc.

ATTACHMENT D
Coal Pile Run-off Sump ("CPROS")
Somerset Electric Generating Station

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit does not have a rating, please note that fact.

The CPROS is a below grade concrete basin, and therefore has no rating because it does not meet the applicability provisions of the Dam Safety Program.

2. What year was each management unit commissioned and expanded?

The CPROS was constructed as part of the Station coal reconversion of 1982-1984.

3. What materials are temporarily or permanently contained in the unit? Use the following categories to respond to this question: (1) fly ash; (2) bottom ash; (3) boiler slag; (4) flue gas emission control residuals; (5) other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).

The CPROS contains fines from coal in a liquid solution. Its location is adjacent to the Station's coal pile with sloped grade to collect the coal pile run-off water. This water and fines in suspension are pumped to the SP and subsequently become influent to the WWTP for processing. In addition, the unit receives decant water from the bottom ash handling system containing a nominal amount of bottom-ash related solids.

4. Was the management unit(s) designed by a Professional Engineer? Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

The Station does have a 1983 design and construction drawing stamped by a Commonwealth of Massachusetts registered PE for the design and construction of the CPROS work completed during the coal reconversion.

5. *When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?*

The last structural integrity evaluation of the SP unit was completed during the 1982 – 1984 Station coal reversion, during its original construction. The coal reversion design and construction work was completed by SWEC. SWEC was the engineer responsible for all original design and construction work at the Station, as well as subsequent unit coal reversion.

Periodically, the CPROS is de-watered and residual ash is removed for routine cleaning and a visual integrity inspection performed by Station personnel.

6. *When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation.*

The Station has no record of any state or federal structural integrity assessments made to the CPROS unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

7. *Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or are being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.*

The Station has no record of any state or federal structural integrity assessments made to the CPROS unit, as it would not be subject to the provisions of the Dam Safety Program. No repairs to outwardly visible surfaces were ever required.

8. *What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material currently stored in each of the management unit(s). Please provide the date that the volume measurement was taken. Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.*

On a surface area basis, the CPROS unit is 12ft x 10ft., which equates to 120 ft², or 0.003 acres. When full, the CPROS unit will hold 6,508 gal. This is based on (12ft x 10ft x 7ft) which yields 840ft³, and on conversion based on 7.48 gal/ft³ (with an allowance for a tapered and sloped bottom) yields 6,508 gal, of which 935 gal are estimated to be bottom ash residuals and coal

finer on average. The solids that accumulate in the bottom of the unit are periodically removed and disposed of in a permitted offsite disposal facility.

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater).

There have been no known spills or unpermitted releases from the unit in the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

The legal owner is Somerset Power LLC. The Station operator is Somerset Operations Inc.