Neil J. Dennehy
Manager, Fossil Generation Assets
Tel. 406.748.5066 Fax 406.748.5000
njdennehy@pplweb.com

PPL Montana, LLC
Colstrip Steam Electric Station
PO Box 38
580 Willow Avenue
Colstrip, MT 59323

PPL Montana, LLC

March 26, 2009

Mr. Richard Kinch
US Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Dr.
5th Floor; N-5783
Arlington, VA 22202 2733

RE: Request for Information under Section 104 (e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

Dear Mr. Kinch:

PPL Montana LLC's Colstrip Steam Electric Station received the EPA's Information Collection Request (ICR) on coal combustion residues (CCR) surface impoundments on March 13, 2009. Attached is PPL Montana's response to the ICR and the associated signed certification statement.

While this facility only has two disposal impoundments for CCRs, we have included other smaller impoundments that received waste waters that have or may have contacted CCRs as was indicated in clarifications on the ICR provided to the Utility Solid Waste Activities Group (USWAG).

The Colstrip impoundments are regulated in Montana under the Major Facility Siting Act. Montana also has a Dam Safety Rule, but it does not regulate the Colstrip impoundments. Since 1988, the Colstrip station has elected to follow the intent of the Montana Dam Safety Rule and has had Dam Safety Inspections conducted by a dam safety engineer approximately every five years.

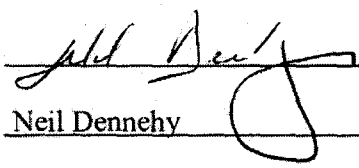
If you have any questions or need additional information, please contact Craig Shamory from our Environmental Management Department at 610-774-5653 or csshamory@pplweb.com.

Sincerely,

CC: Craig Shamory PPL, EMD
Gordon Criswell PPLM

ICR Letter Certification Statement:

I certify that the information contained in this response to EPA's request for information and any 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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, 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.

Signature: 

Name: Neil Dennehy

Title: Mgr Fossil Generation Assets, Colstrip Steam Electric Station

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 1&2 Stage Two Evaporation Pond (STEP)

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   In 2005, Maxim Technologies, a division of Tetra Tech, Inc. conducted a Phase I inspection of this impoundment and followed the Corps of Engineers' guidelines to rate this dam. Based upon height, the dam is classified as an intermediate sized dam.

   Within a short distance downstream of the dam, development includes residences, businesses, a primary state highway, and a railroad. Sudden failure of this structure would likely result in extensive property damage and a high potential for loss of lives. This project is therefore assigned a high hazard potential.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The STEP pond was commissioned in 1992. In 2006, the B cell section of this unit was double-lined with 45-mil RFP and leachate collection installed.

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).

   Flyash, bottom ash, boiler slag, and flue gas emission control residuals are permanently contained in this unit.

   Other type materials stored in this pond include mill rejects.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Inspection and monitoring of the safety of the unit is also under the supervision of a professional engineer.

5. When did the company last assess or evaluate the safety (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 company last evaluated the safety of the unit in 2005. Dam safety inspections began in 1988 and been conducted about every five years since then. The dam safety inspections have been conducted by Maxim Technologies, a division of Tetra Tech, Inc. The inspection was conducted by a professional engineer and reviewed by a professional engineer from Maxim Technologies.

   As a result of the 2005 inspection, the following actions were completed:

   - repair the cracks, sinkholes, and minor erosion developing directly over the return line from the valley drain sump to the dam crest
   - repair rill erosion gullies at a pipeline valve on the upstream slope adjoining D cell
   - restrict vehicles from spillway area and provide better vegetation
   - backfill and compact rodent holes
   - initiate a rodent control plan

- continue monthly monitoring of water levels in observation wells and hour meter on the valley drain sump and have that information reviewed by hydrogeology consulting firm Hydrometrics

Corrective actions were taken as directed by the plant environmental engineering group and involved earth moving contractors, pest control contractors, and a hydrogeology consulting firm.

The next dam safety inspection is scheduled for 2009.

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official, but by a contracted dam safety engineer.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 STEP has a surface area of 176 acres and a total storage capacity of 4370 acre-feet. As of September 2006, the unit was estimated at 45% full of material. The maximum height of the unit is 88 feet.

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).

   10/11/99 – a small water spill was observed at the D cell concrete outlet structure. This spill (~100 gallons) was contained within 10 feet of the outlet structure

within the boundary of the pond, captured and returned to the pond. This spill was reported to the Montana Department of Environmental Quality.

8/29/00 – a small water spill was observed at the C cell concrete outlet structure. This spill (~50 gallons) was contained within 10 feet of the outlet structure within the boundary of the pond, captured and returned to the pond. This spill was reported to the Montana Department of Environmental Quality.

2/1/06 – a water spill was observed on the C cell dike. A small hole (~1 inch in diameter) in the HDPE liner was found just below the water level and water flowed through the upper portion of the dike where it exited through a rodent hole. The pond was lowered and the spill was stopped. The liner was repaired. The spill (~2000 gallons) moved about 100 feet to the toe of the dike and was captured in a temporary lined sump and returned to the pond. The spill was contained within the pond boundary.

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

PPL Montana, LLC – Owner/Operator
Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 1&2 A Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   About half of this unit is incised, with the west side of the pond extending above the ground surface. While the drainage in this area is on the plant site, it is adjacent to Armells Creek and the town of Colstrip with possible loss of human life and likely significant property damage and environmental destruction. The height of this unit is 25 feet and the capacity of the unit is 245 acre-feet. Based on this information, the 1&2 A Pond is assigned a significant hazard classification. This pond will be part of the 2009 Dam Safety inspection since part of it sits above the natural ground level. That inspection will be conducted by Maxim Technologies, a division of Tetra Tech, Inc.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The Units 1&2 A Pond was commissioned in 1975. Originally, this pond was part of the Units 1&2 Flyash Pond, but in 2005, it was removed from service as a flyash pond and converted to a clean water storage pond (stormwater runoff, etc.).

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).

   There is a small amount of flyash and flue gas emission control residuals left in this pond that have been covered with a geocomposite clay blanket and bottom ash. The other types of materials it now receives include dirt and coal from storm water runoff.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the safety of the unit is also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction. In 2009, this unit will be part of the dam safety inspection conducted by Maxim Technologies. This inspection will be conducted by a professional engineer and reviewed by a professional engineer.

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 1&2 A Pond has a surface area of 14 acres and a total storage capacity of 245 acre-feet. The volume of materials currently stored in the unit is about 10% of the storage capacity. The maximum height of the unit is 25 feet.

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).

   3/18/03 – A spill of ~2700 gallons of water flowed through an abandoned pipe and settled at the base of the dike on plant property. This water was captured and returned to the pond and the abandoned pipe was permanently plugged. This spill was reported to the Montana Department of Environmental Quality.

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

    PPL Montana, LLC – Owner/Operator
    Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 1&2 B Flyash Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   This unit is incised (completely below grade) and does not have a dam, so it has been assigned a Less-than-Low hazard rating.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The Units 1&2 B Flyash Pond was commissioned in 1975. In 2004, this unit was converted to a double-lined 45-mil RFP pond with leachate collection.

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).

   Flyash and flue gas emission control residuals are periodically sent to this unit when the STEP is not available. Other types of materials like plant floor drains, and coal system washdown is also contained in this unit. This material is temporarily stored at this unit and every 5 – 10 years it is sent to the 1&2 STEP for final deposition.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the safety of the unit is also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 1&2 B Flyash Pond has a surface area of 10 acres and a total storage capacity of 196 acre-feet. This unit is a temporary storage location for flyash, flue gas emission control residuals and the volume of materials is ~25% of the unit's capacity. The maximum height of the unit is 25 feet.

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 releases from this unit within the last ten years.

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

    PPL Montana, LLC – Owner/Operator
    Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 1&2 Bottom Ash Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   About half of this unit is incised, but the north and west sides of the pond do extend above the ground surface. While the drainage in this area is on the plant site, it is adjacent to Armells Creek and the town of Colstrip with possible loss of human life and likely significant property damage and environmental destruction. The height of this unit is 25 feet and the capacity of the unit is 73 acre-feet. Based on this information, the 1&2 Bottom Ash Pond is assigned a significant hazard classification. This pond will be part of the 2009 Dam Safety inspection since part of it sits above the natural ground level. That inspection will be conducted by Maxim Technologies, a division of Tetra Tech, Inc.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The Units 1&2 Bottom Ash Pond was commissioned in 1988.

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).

   Bottom ash and boiler slag are temporarily contained in this unit. Other materials that are temporarily contained in this unit include mill rejects. The final deposition of materials from this unit is normally the 3&4 EHP.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the safety of the unit is also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction. In 2009, this unit will be part of the dam safety inspection conducted by Maxim Technologies. This inspection will be conducted by a professional engineer and reviewed by a professional engineer.

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 1&2 Bottom Ash Pond has a surface area of 7 acres and a total storage capacity of 73 acre-feet. This unit is a temporary storage location for bottom ash, with the bottom ash being removed to its final location on a weekly basis. The maximum height of the unit is 25 feet.

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 releases from this unit within the last ten years.

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

    PPL Montana, LLC – Owner/Operator
    Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 1&2 C Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   The majority of this unit is incised, but does contain one corner (northwest) that extends above the ground surface. The drainage in this area is on the plant site toward a laydown area, with no probable loss of human life and low economic and environmental losses. The height of the southwest corner is 14 feet and the capacity of the unit is 400 acre-feet. Based on this information, the 1&2 C Pond is assigned a low hazard classification. This pond will be part of the 2009 Dam Safety inspection since part of it sits above the natural ground level. That inspection will be conducted by Maxim Technologies, a division of Tetra Tech, Inc.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The Units 1&2 C Pond was commissioned in 1978. Originally, this pond was used as a cooling tower blowdown pond, and in 1987 it was divided into 2 sections. Since 2005, this pond is used to store raw water and storm water runoff from A pond. Water from this pond is used for road dust control.

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).

   Other materials that are contained in this pond are cooling tower blowdown and water from the 1&2 A Pond. This pond is included in this survey because it gets water from the 1&2 A Pond which had in the past received flyash and flue gas emission control residuals.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the safety of the unit is also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction. In 2009, this unit will be part of the dam safety inspection conducted by Maxim Technologies. This inspection will be conducted by a professional engineer and reviewed by a professional engineer.

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety (structural integrity) inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 1&2 C Pond has a surface area of 20.5 acres and a total storage capacity of 400 acre-feet. The volume of materials currently stored in the unit is about 10% of the storage capacity. The maximum height of the unit is 14 feet.

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 releases from this unit within the last ten years.

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

    PPL Montana, LLC – Owner/Operator
    Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 3&4 Effluent Holding Pond (EHP)

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   In 2005, Maxim Technologies, a division of Tetra Tech, Inc. conducted a Phase I inspection of this impoundment and followed the Corps of Engineers' guidelines to rate this dam. Based upon height, the main dam is classified as a large sized dam and the saddle dam is classified as an intermediate sized dam.

   The area downstream from the dams is a combination of rural, range land, and agricultural land. The nearest structure is located about eight miles away. Sudden failure of this structure would dissipate in the relatively broad, flat drainage valleys of Cow Creek and Rosebud Creek. Damage to private and county roads is expected to be minimal and slow flooding of isolated farm buildings and residences is possible, but the potential for loss of life appears to be low. This project is therefore assigned a low hazard potential.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The EHP pond was commissioned in 1983.

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).

   Flyash, bottom ash, boiler slag, and flue gas emission control residuals are permanently contained in this unit.

   Other types of materials stored in this unit include plant floor drains, cooling tower blowdown, demineralizer neutralization sump discharge, mill rejects, and periodic boiler waterside chemical cleaning solution.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Inspection and monitoring of the safety of the unit is also under the supervision of a professional engineer.

5. When did the company last assess or evaluate the safety (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 company last evaluated the safety of the unit in 2005. Dam safety inspections began in 1988 and been conducted about every five years since then. The dam safety inspections have been conducted by Maxim Technologies, a division of Tetra Tech, Inc. The inspection was conducted by a professional engineer and reviewed by a professional engineer from Maxim Technologies.

   As a result of the 2005 inspection, the following actions were completed:

   - repair erosion damage to the groins and abutments of the Saddle Dam.
   - remediate and monitor the seepage from the hillside in the natural ground opposite the toe of the main dam
   - continue to monitor cracks, slope movement, monitoring wells on the crest of the Saddle Dam. This data was reviewed annually by a consultant (Womack Associates) familiar with dam design.
   - backfilled and compacted rodent holes
   - initiated a rodent control plan
   - continued monthly monitoring of water levels in observation wells and hour meter on the valley drain sump and had that information reviewed by hydrogeology consulting firm Hydrometrics
   - repair gully erosion in the left downstream groin of the Main Dam. Place rock where necessary and revegetate where possible.

   Corrective actions were taken as directed by the plant environmental engineering group and involved earth moving contractors, pest control contractors, and a hydrogeology consulting firm.

   The next dam safety inspection is scheduled for 2009.

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official, but by a contracted dam safety engineer.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 EHP has a surface area of 367 acres and a total storage capacity of 17000 acre-feet. As of April 2005, the unit was estimated at 55% full of material. The maximum height of the unit is 138 feet.

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).

   12/21/99 – Water from the pond escaped underground and surfaced on the hillside just downgradient of the Saddle Dam. Surface water moved about 100 yards before it was captured in the Saddle Dam Valley Drain collection system and returned to the EHP. All spilled water (~1 million gallons) was contained on plant property and captured within ~100 yards of the Saddle Dam. This spill was reported to the Montana Department of Environmental Quality.

   9/28/04 – Water from the pond escaped underground and surfaced on the hillside south of the EHP. Surface water moved about 300 yards before it was captured behind a berm and returned to the EHP. All spilled water (~9 million gallons) occurred on land currently owned by the plant. This spill was reported to the Montana Department of Environmental Quality.

   1/25/05 – Water from the pond escaped underground and surfaced on the hillside west of the EHP. This spill is related to the 9/28/04 incident, only in a different area. Surface water moved about 100 yards before it was captured behind a berm and returned to the EHP. All spilled water (~4.5 million gallons) occurred on land currently owned by the plant. This spill was reported to the Montana Department of Environmental Quality.

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

PPL Montana, LLC – Owner/Operator
Avista Corporation – Owner
NorthWestern Energy – Owner
Pacificorp Energy – Owner
Portland General Electric - Owner
Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 3&4 Bottom Ash Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   The majority of this unit is incised, but does contain one corner (southwest) that extends above the ground surface. The drainage in this area is on the plant site toward a laydown area, with no probable loss of human life and low economic and environmental losses. The height of the southwest corner is 14 feet and the capacity of the unit is 38.4 acre-feet. Based on this information, the 3&4 Bottom Ash Pond is assigned a low hazard classification. This pond will be part of the 2009 Dam Safety inspection since part of it sits above the natural ground level. That inspection will be conducted by Maxim Technologies, a division of Tetra Tech, Inc.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The 3&4 Bottom Ash Pond was commissioned in 1983.

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).

   Bottom ash and boiler slag are temporarily contained in this unit. Other types of materials stored in this unit include plant floor drains, demineralizer neutralization sump discharge, and mill rejects. The final deposition of materials from this unit is the 3&4 EHP.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the structural integrity of the unit is also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction. In 2009, this unit will be part of the dam safety inspection conducted by Maxim Technologies. This inspection will be conducted by a professional engineer and reviewed by a professional engineer.

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety (structural integrity) inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 3&4 Bottom Ash Pond has a surface area of 7.6 acres and a total storage capacity of 38.4 acre-feet. This unit is a temporary storage location for bottom ash, with the bottom ash being removed to its final location on a weekly basis. The maximum height of the unit is 14 feet.

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 releases from this unit within the last ten years.

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

    PPL Montana, LLC – Owner/Operator
    Avista Corporation – Owner
    NorthWestern Energy – Owner
    Pacificorp Energy – Owner
    Portland General Electric - Owner
    Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 3&4 Scrubber Drain Collection Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   This unit is incised (completely below grade) and does not have a dam, so it has been assigned a Less-than-Low hazard rating.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The Units 3&4 Scrubber Drain Collection Pond was commissioned in 1983. This unit was removed from service in 1999 and no longer receives scrubber water.

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).

   Flyash and flue gas emission control residuals were periodically sent to this unit as it provided water to the scrubber building flush and drain system. There is a small amount of scrubber residue left in this unit.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the safety of the unit was also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 3&4 Scrubber Drain Collection Pond has a surface area of 6 acres and a total storage capacity of 72 acre-feet. This unit is no longer in service, but it contains a small amount of flyash and flue gas emission control residuals. The volume of those materials is estimated at <10% of the unit's capacity.

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 releases from this unit within the last ten years.

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

    PPL Montana, LLC – Owner/Operator
    Avista Corporation – Owner
    NorthWestern Energy – Owner
    Pacificorp Energy – Owner
    Portland General Electric - Owner
    Puget Sound Energy, Inc. – Owner

PPL response to ICR

Plant Name: Colstrip
Impoundment Name: Units 3&4 Scrubber Wash Tray Pond

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 form 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 or by-products, but still contain free liquid.

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(s) does not have a rating, please note that fact.

   This majority of this unit is incised (completely below grade), but the northwest bank does contain a small dike about 10 feet in height. This unit is assigned a low hazard rating since it is no longer in service and does not contain scrubber water. The small amount of solids remaining in the pond is in a dry form.

   The regulatory agency for this unit is the Montana Department of Environmental Quality.

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

   The Units 3&4 Scrubber Wash Tray Pond was commissioned in 1983. This unit was removed from service in 1995 and no longer receives scrubber water.

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).

   Flyash and flue gas emission control residuals were periodically sent to this unit as it provided water to the scrubber wash tray system. There is a small amount of scrubber residue left in this unit.

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?

   This unit was designed by a professional engineer and the construction of the unit was under supervision of a professional engineer. Monitoring of the safety of the unit was also under the supervision of a plant professional engineer.

5. When did the company last assess or evaluate the safety (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?

   An assessment of the safety (structural integrity) of this unit has not been completed since original design and construction

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. Please provide a copy of the most recent official inspection report or evaluation.

   There has not been a safety inspection from a State or Federal regulatory official.

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.

   Not applicable.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) 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 3&4 Scrubber Wash Tray Pond has a surface area of 8 acres and a total storage capacity of 85 acre-feet. This unit is no longer in service, but it contains a small amount of flyash and flue gas emission control residuals. The volume of those materials is estimated at ~20% of the unit's capacity. The majority of this unit is incised, but the northwest side has a dike with a height of approximately 10 feet.

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 releases from this unit within the last ten years.

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

    PPL Montana, LLC – Owner/Operator
    Avista Corporation – Owner
    NorthWestern Energy – Owner
    Pacificorp Energy – Owner
    Portland General Electric - Owner
    Puget Sound Energy, Inc. – Owner