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*Counsel for Appellants Montana Environmental  
Information Center, Sierra Club, and  
National Wildlife Federation*

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW  
OF THE STATE OF MONTANA

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)  
IN THE MATTER OF: )  
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ADMINISTRATIVE ORDER ON CONSENT )  
)  
REGARDING IMPACTS RELATED TO )  
)  
WASTEWATER FACILITIES COMPRISING )  
)  
THE CLOSED-LOOP SYSTEM AT )  
)  
COLSTRIP STEAM ELECTRIC STATION, )  
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COLSTRIP, MONTANA )  
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Case No. \_\_\_\_\_

**AFFIDAVIT OF MONTANA  
ENVIRONMENTAL INFORMATION  
CENTER, ET AL.**

Pursuant to Montana Code Annotated 75-20-2223, Appellants Montana Environmental Information Center (“MEIC”), Sierra Club, and National Wildlife Federation (“NWF”) (collectively, “Appellants”) hereby submit an affidavit setting forth the grounds for their request for hearing, which is timely filed with this affidavit.

On behalf of Appellants, Derf Johnson declares as follows:

1. Appellants hereby seek review of the “Administrative Order on Consent Regarding Impacts Related to Wastewater Facilities Comprising the Closed-Loop System at Colstrip Steam Electric Station, Colstrip, Montana” (“AOC”) between PPL Montana, LLC (“PPLM”) as operator of the Colstrip Steam Electric Station and the Montana Department of Environmental Quality (“DEQ”). The AOC was signed by DEQ on August 3, 2012 and

constitutes a final order of the Department pursuant to MCA 75-20-223(1)(a).

## **BACKGROUND**

2. The Colstrip coal-fired power plant, 120 miles east of Billings in southeastern Montana, is among the largest U.S. coal plants, with four generating units representing a combined capacity of approximately 2,100 megawatts. Each year, Colstrip burns more than 10 million tons of coal, generating approximately 1.6 million tons of coal ash. The coal combustion process concentrates coal's impurities, and the resulting coal ash contains carcinogens, neurotoxins, and other poisons—including arsenic, cadmium, lead, and selenium.

3. To manage Colstrip's coal combustion waste, PPLM maintains a number of constructed impoundments at the plant. See Hydrometrics, Inc., Evaluation of 2010 Hydrologic Monitoring Data From Colstrip Units 1 Through 4 Process Pond System ("2010 Hydrologic Report"), Table 2-1 (Apr 2011) (Attachment A to AOC). One cluster of impoundments is located in the general area of the plant itself on the southeast edge of the town of Colstrip. This cluster includes bottom ash impoundments for all four coal-fired units at the Plant. Bottom ash is a coal combustion waste left after the coal has been burned. PPLM pumps ash slurry (a sludgy mix of ash and water combined from several points in the operation) to the bottom ash impoundments where it is allowed to settle.

4. A second cluster of impoundments, located approximately three miles southeast of the Plant at the head of the Cow Creek drainage, contains the effluent holding ponds for Units 3 and 4 ("3 and 4 EHP"). The 3 and 4 EHP—covering at least 367 acres—receive several different water waste streams from Units 3 and 4 at the Plant, including: excavated settled-out sludge from the bottom ash ponds located at the Plant Ponds; fly ash (captured small, air-borne particles of ash produced in combustion) slurry from Units 3 and 4; and flue gas desulfurization

waste, which is waste from the scrubbers where water is used to remove pollutants from the Plant's air emissions.

5. A third cluster of impoundments, located approximately two miles northwest of the Plant and town, contains the effluent holding ponds, or stage two evaporation ponds, for Units 1 and 2 ("1 and 2 STEP"). The 1 and 2 STEP—covering 176 acres—receive fly ash and scrubber sludge from Units 1 and 2.

6. A number of impoundments also receive contaminated groundwater that PPLM pumps from many different locations in the area.

7. The various waste streams to the impoundments described above—and in turn the impoundments themselves—contain a number of pollutants including boron, sulfates, chlorides, dissolved solids, magnesium and selenium. See 2010 Hydrologic Report, p. 2-1; AOC Response to Comments SC/MEIC4a. These pollutants leak from the waste impoundments into groundwater.

8. All impoundments receiving waste from Colstrip Units 3 and 4 are subject to Colstrip's MFSA certificate of compatibility, which requires that the impoundments be "completely sealed." See Board of Natural Res. and Conservation, Findings of Fact, Opinion, Decision, Order and Recommendations, Conclusion of Law 12(d) (July 22, 1976) (emphasis in original).

9. Colstrip's owners have conducted groundwater monitoring since as a condition of the facility's construction, and have expanded that monitoring as the result of subsequent litigation. See Board of Natural Res. and Conservation, Findings of Fact, Opinion, Decision, Order and Recommendations, Finding of Fact 71 and Conclusion of Law 12(d) (July 22, 1976); AOC Responses to Comments SC/MEIC10b, SC/MEIC14. As the impoundments have

continued to leak, PPLM has installed hundreds of capture wells, or “pump-back wells,” around or near the waste impoundments, 1 and 2 STEP, and 3 and 4 EHP. See 2010 Hydrologic Report. These wells pump contaminated water from several aquifers back into some or all of the impoundments in the system. PPLM has converted numerous monitoring wells that show contamination to “pump-back wells.” See, e.g., 2010 Hydrologic Report, p. 8-1. The number of pump-back wells has increased such that as of the date of this affidavit, PPLM is pumping approximately 423 gallons per minute of groundwater from various aquifers and drainages in the area.

10. Over the last decade, PPLM also has installed synthetic liners of varying designs and effectiveness under some of its wastewater facilities. Others remain lined with clay. See AOC, Attachment A. As DEQ conceded in responses to comments on the AOC, “even lined ponds may leak.” AOC Responses to Comments, NPRC/WORC7.

11. Notwithstanding PPLM’s pumping of groundwater and lining of certain impoundments, contaminants continue to leak from the impoundments and travel beyond the perimeter of capture wells, where they are detected in PPL’s groundwater monitoring wells. AOC Responses to Comments, SC/MEIC2. By PPL’s and DEQ’s own admission, this alleged “closed-loop” system has not prevented ongoing groundwater contamination originating from the Colstrip waste impoundments. See id.; AOC, p. 9. Moreover, DEQ has conceded that the Units 3 & 4 impoundments have likely been leaking since their inception. See AOC Responses to Comments, CM3. Given their similar design, the same is likely true of the Units 1 and 2 impoundments.

12. In the last decade, PPLM began providing an alternative source of water to Colstrip residents whose drinking water was impacted by contamination originating from the

coal ash impoundments and related facilities. See 2010 Annual Report, p. 1-1, 7-5. PPLM has continued to monitor the contaminated drinking water wells, which still exhibit high levels of total dissolved solids, boron and other pollutants. See 2010 Annual Report, p. 7-5 & App. G.

13. Over the lifetime of Colstrip's leaking coal ash impoundments, DEQ has imposed on PPLM a single fine totaling only \$3,700. See AOC Responses to Comments, CM 6. That fine was imposed in connection with a slurry pipeline leak in March of 2000. Id. Based on information and belief, DEQ has imposed no fines or penalties as a result of the leaking impoundments.

#### **ADMINISTRATIVE ORDER ON CONSENT**

14. On or about February 9, 2010, DEQ released a draft AOC addressing the ongoing groundwater contamination from Colstrip's leaking waste impoundments. The AOC states that DEQ is "acting pursuant to ... the authority vested in it by the Montana Water Quality Act, Section 75-5-101, et seq., MCA and specifically Section 75-5-612, MCA and pursuant to the Department's general enforcement authority under the Montana Major Facility Siting Act, Section 75-20-101, et seq., MCA." AOC, p. 1.

15. Appellants and Colstrip-area ranchers submitted comments to DEQ stating their belief that the AOC is not a valid enforcement action. See Comments, attached. With few changes from the draft, DEQ finalized the AOC on August 3, 2012.

16. The AOC applies to all of Colstrip's wastewater facilities described above in paragraphs 3 through 5 (i.e., areas associated with the plant site, the Units 3 and 4 EHP, and the Units 1 and 2 STEP), as well as areas down gradient of past pipeline spills and other areas agreed upon by DEQ and PPL. AOC, § III.

17. The AOC generally establishes a process by which PPLM will develop and

submit to DEQ a series of studies and work plans, but the AOC establishes no timetable for compliance and imposes no measures to ensure that compliance is achieved. The AOC requires no payment of penalties and ultimately does not even require PPLM to cease contaminating groundwater or to remedy existing contamination.

18. The AOC first requires PPLM to develop a site report for each of the areas covered under the AOC. The site reports are to be based on available data, and will describe the results of water modeling, investigations, remedial actions, as well as estimates of seepage to groundwater from each pond and recommendations for further data-gathering. See AOC § 6.A.1. The AOC establishes no deadline for the development and submission of these reports. Id.

19. If a site report identifies the need for additional information, PPLM must develop a “Site Characterization Work Plan” for that area “within a reasonable time frame required by the Department after consultation with PPLM.” AOC § VI.A.3. The Site Characterization Work Plan establishes the schedule for additional site investigation; the AOC does not. Id.

20. After the Site Characterization Work Plan is implemented, PPLM will submit a “Supplemental Site Report” to DEQ under the schedule established by PPLM in the Site Characterization Work Plan. AOC § VI.A.4.

21. Following the Site Report and Supplemental Site report, if any, “within a reasonable time required by the Department after consultation with PPLM,” PPLM must submit a “Cleanup Criteria and Risk Assessment Report” for each of the areas covered by the AOC. AOC § VI.B. This report identifies cleanup criteria, pollutant-transport mechanisms, potential “receptors,” exposure pathways, and additional site characterization needed to identify human health or environmental risks. Id.

22. If the Cleanup Criteria and Risk Assessment Report concludes that remedial

measures are necessary, PPLM must submit a Remedy Evaluation Report “within a reasonable time required by the Department after consultation with PPLM.” AOC § VI.C. This report identifies “feasible remedial alternatives,” which may include actual remedial action to reduce or contain seepage, or the use of “institutional controls” such as easements or deed restrictions that limit pathways for human exposure. Id.; see also AOC §§ IV.B, IV.C.

23. After DEQ takes action on the Remedy Evaluation Report, “within a reasonable time required by the Department after consultation with PPLM,” PPLM must submit a “Remedial Design/Remedial Action Work Plan” for implementing the selected remedy. AOC § VI.D.

24. Although there are no deadlines for PPLM to submit the above-described documents, under the process established by the AOC, DEQ is to take action on “work plans” within approximately 4 months after they are submitted, and “reports” within approximately 6 months after they are submitted. See AOC § XII.A-B. Any time DEQ disapproves any report or work plan, this time frame could effectively be doubled.

25. Further, for each DEQ action, PPLM may invoke a dispute-resolution process if it is not satisfied with DEQ’s decision, during which time PPLM need not perform the action in dispute. AOC §§ XII.D, XIII.F.

26. Only after PPLM has prepared these numerous reports and work plans, DEQ has approved or conditionally approved them, and the dispute resolution process, if invoked, is concluded in each case, does the AOC provide for implementation the selected remedy. AOC § VI.D.3. However, it is unclear whether remedial actions identified through the AOC process will actually remedy ongoing ground and surface water contamination. Although PPLM must describe “how each alternative satisfies the Cleanup Criteria” (generally, the applicable Montana

water quality standards), the AOC does not explicitly require DEQ and PPLM to select a remedy that satisfies those criteria. AOC § VI.C. Further, the AOC provides that the cleanup criteria may not be more be “more stringent than the background or unaffected reference areas concentrations,” but the AOC fails to identify background or reference levels.

27. The AOC requires PPLM to provide financial assurance “[t]o ensure the operation and maintenance of remedial and closure actions” under the order, but fails to establish the amount of such financial assurance. AOC § VIII.

28. Finally, the AOC requires PPLM to develop “Facility Closure Plans” to address the need for “control, minimization or elimination, to the extent necessary to protect human health and the environment,” of contamination in the event that the waste water facilities covered by the AOC are closed. AOC § IX (emphasis added). The AOC does not require the closure plan to identify remedial action necessary to ensure ongoing compliance with water quality standards or nondegradation requirements. However, the Facility Closure Plans are the only reports or plans for which the AOC establishes a deadline for submission. The plans must be submitted within 5 years from the date of the AOC. Id.

29. The AOC provides that “[c]ompliance with this AOC shall constitute the means, as between the parties, for attaining and assuring compliance with PPLM’s obligation under its Certificate and water quality laws and rules within the scope of this AOC.” AOC § XV. This provision does not define which legal obligations are “within the scope” of the AOC.

### **HARM TO APPELLANTS**

30. Appellant MEIC is a member-supported advocacy and public education organization based in Helena, Montana, that works to protect and restore Montana’s natural environment. MEIC is a Montana nonprofit corporation, founded in 1973 by Montanans



concerned with protecting and restoring Montana's natural environment. MEIC has worked extensively on addressing the impacts of water pollution in Montana. As a government agency watchdog, MEIC routinely reviews agency actions to assure that agencies and regulated entities comply with federal laws and regulations. MEIC and its membership are intensively involved in monitoring state and federal actions regarding the regulation and disposal of coal ash. MEIC is involved in a nationwide coalition that is advocating through public education and court action for federal regulation of coal ash disposal. MEIC also has a long history of advocating for state enforcement of pollution-control laws with respect to coal ash disposal practices at Colstrip, including by commenting on the draft AOC. In short, MEIC has a deep institutional commitment to protecting and restoring ground and surface water quality in and around Colstrip.

31. Appellant Sierra Club is a nationwide conservation organization with more than 1.3 million members and supporters, approximately 2,000 of whom belong to the Montana Chapter. Sierra Club has advocated for regulation of coal ash disposal at the federal level and in Montana. As part of its public education efforts, Sierra Club co-authored, "In Harm's Way: Lack Of Federal Coal Ash Regulations Endangers Americans And Their Environment" (Aug. 26, 2010), which reported on a hydrogeologic investigation of groundwater and surface water contamination from coal ash disposal sites around the country. Sierra Club also advocates for regulation of coal ash disposal associated with the Colstrip plant, including by attending public hearings, submitting public comments, and engaging in efforts to educate Montana residents about the health and ecological dangers of improper coal ash disposal.

32. The National Wildlife Federation's mission is to inspire American's to protect wildlife for our children's future. NWF is a national member-supported non-profit conservation, education, and advocacy organization. NWF is associated with conservation organizations in 47

states and territories, including Montana Wildlife Federation in Montana. NWF is dedicated to conserving and protecting wildlife, water and other natural resources. NWF has been engaged in DEQ's efforts to address the leaking coal ash disposal ponds at the Colstrip coal-fired power plant in Colstrip, Montana since the first public hearing concerning the draft AOC that occurred in Colstrip on February 24, 2010, during which NWF staff provided oral comments. NWF also submitted detailed written comments on the draft AOC in April of 2010. NWF has an interest in this issue due to the fact that highly contaminated effluent is leaking into the groundwater, contaminating and polluting both ground and surface water near the power plant. This contamination, which the AOC fails to redress, has the potential to harm local wildlife, fish and plant species. In addition, NWF has worked on the national level to advocate for stronger regulations proposed by the Environmental Protection Agency concerning coal ash storage and disposal.

33. Appellants' members live, work, hunt and recreate in and around Colstrip. Ground and surface water contamination originating from the Colstrip waste impoundments threaten the health, livelihood, and enjoyment of Appellants' members in the Colstrip vicinity.

**FIRST CLAIM  
(Failure to Meet Minimal Enforcement Standards)**

34. Given ongoing violations of PPLM's MFSA certificate of compatibility and the Montana Water Quality Act, Montana law requires DEQ to take enforcement action.

35. The MFSA provides for an action in mandamus if DEQ "refuses for an unreasonable time ... to enforce" a requirement or rule under the MFSA after it has received a sworn statement notifying DEQ of the violations. Mont. Code Ann. § 75-20-404. On August 29, 2012, Appellants submitted affidavits to DEQ as required by that statute.

36. Further, under the Montana Water Quality Act, "[w]henever, on the basis of

information available to the department, the department finds that a person is in violation of this chapter ..., the department shall initiate an enforcement response.” Id. § 75-5-617 (emphasis added); see also id. § 75-5-616 (DEQ “shall take actions ... to ensure that violations of this chapter are appropriately prosecuted”) (emphasis added).

37. The AOC does not constitute enforcement because it does not require PPLM to cease its ongoing MFSA and Montana Water Quality Act violations, establish specific actions or a timetable for compliance, or pay any penalty, and therefore does not satisfy definitions of “enforcement” in Montana law. See, e.g., Mont. Code Ann. § 75-5-611(6) (enforcement action must require “the prevention, abatement, or control of pollution, the assessment of administrative penalties, or both” and “state the date or dates by which a violation must cease”); id. § 75-5-611(1) (a notice letter issued in lieu of administrative order must state “the specific nature of corrective action that the department requires” and “the time within which the corrective action is to be taken”); id. § 75-5-612 (authorizing enforcement actions “to prevent, abate, and control ... the pollution of state waters”). Indeed, DEQ characterizes the AOC as “compliance assistance...rather than enforcement.” AOC Responses to Comments SC/MEIC8.

38. DEQ’s failure to undertake a valid enforcement action is arbitrary, capricious, and violates DEQ’s obligations under the MFSA and Montana Water Quality Act.

**SECOND CLAIM  
(Unlawful Constraint of Future Enforcement)**

39. Not only does the AOC fail to constitute enforcement under the MFSA and Montana Water Quality Act, it constrains DEQ’s future enforcement authority under those statutes.

40. The AOC includes the general statement that “[n]othing set forth in this AOC is intended, or shall be construed, to authorize any violation of any statute or rule issued or

administered by the Department.” AOC § XV. However, the AOC also states that “[c]ompliance with this AOC shall constitute the means, as between the parties, for attaining and assuring compliance with PPLM’s obligation under its Certificate and water quality laws and rules within the scope of this AOC.” AOC § XV. In other words, DEQ is contractually waiving its authority to undertake any future enforcement action for legal violations “within the scope” of the AOC. This is particularly troubling because, although DEQ cites its general enforcement authority under the Montana Water Quality Act and MFSA as the source of the agency’s authority for the AOC, it fails to identify any particular violations under either statute that are “within the scope” of the AOC, thereby creating uncertainty as to the scope of matters for which DEQ has waived its enforcement authority.

41. Furthermore, the AOC sets forth a process by which PPLM will submit reports and work plans, but it does not require PPLM to cease its ongoing violations of its MFSA certificate of compatibility or the Montana Water Quality Act. At most, it will require PPLM to select remedial action years from now, but even then, the AOC does not direct that the remedial action must actually be designed to halt ongoing contamination or clean-up existing contamination. Because the process identified by the AOC constitutes the exclusive means for DEQ to obtain compliance with the MFSA and Montana Water Quality Act violations, contamination due to PPLM’s leaking coal ash impoundments may continue indefinitely.

42. The AOC is not a valid enforcement action because it constrains DEQ’s future ability to enforce PPLM’s ongoing violations of the Montana Water Quality Act and the MFSA certificate of compatibility.

**REQUEST FOR RELIEF**

Based on the foregoing legal violations, Appellants request that the Board of Environmental Review:

1. Declare that the AOC is not valid enforcement of the Montana Water Quality Act and MFSAs;
2. Vacate and remand the AOC to DEQ for preparation of a lawful enforcement action; and
4. Provide any and all other relief that the Board determines to be appropriate.

Respectfully submitted on this 4th day of September, 2012,

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Derf Johnson  
*On behalf of Appellants Montana Environmental  
Information Center, Sierra Club, and National  
Wildlife Federation*

Subscribed and sworn before me this 4th day of September, 2012.

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Notary Public for the State of Montana  
Residing at Helena  
My commission expires: