



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

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NOV 30 2011

Ref: ENF-L

URGENT LEGAL MATTER
PROMPT REPLY NECESSARY
CERTIFIED MAIL/ RETURN RECEIPT REQUESTED

BNSF Railway Company
Attn: David M. Smith
Manager, Environmental Remediation
825 Great Northern Blvd., Suite 105
Helena, Montana 59601

John P. Ashworth
Robert B. Lowry
Kell, Alterman & Runstein, L.L.P.
520 S.W. Yamhill, Suite 600
Portland, OR 97204-1329

Re: RI/FS Special Notice Response; Settlement Proposal and
Demand Letter for the ACM Smelter and Refinery Site,
Cascade County, MT (SSID #08-19)

Dear Messrs. Smith, Ashworth and Lowry:

This letter addresses the response of BNSF Railway Company (BNSF), formerly Burlington Northern and Santa Fe Company, to the General and Special Notice and Demand letter issued by the United States Environmental Protection Agency (EPA) on May 19, 2011 (Special Notice), for certain areas within Operable Unit 1 (OU1) at the ACM Smelter and Refinery Site, near Great Falls, Montana (Site). Actions at the Site are being taken pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9601, *et seq.* The Special Notice informed BNSF of the Remedial Investigation and Feasibility Study (RI/FS) work determined by the EPA to be necessary at OU1 at the Site, notified BNSF of its potential liability at the Site under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), presented a demand for payment of the EPA's past response costs at the Site, and established a moratorium and other procedures and time lines in accordance with Section 122(e) of CERCLA, 42 U.S.C. § 9622(e). The Special Notice also presented an Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study (AOC) and attached Statement of Work (SOW) and requested that BNSF provide a good faith response indicating whether or not it was willing to perform the work and enter negotiations for the AOC. Elements of the good faith response were detailed in the Special Notice.

Counsel for BNSF sent an email to the EPA on June 3, 2011, indicating the company had received the Special Notice, and that it intended to submit a response. The EPA received BNSF's written response to the Special Notice by letter dated July 25, 2011. Issues presented in your July 25 letter were also discussed in a meeting and video conference with the EPA, the State and BNSF held on August 15, 2011.

I. Failure to Provide Good Faith Offer

The EPA's Special Notice letter requested a good faith response including, among other things, a statement of willingness to conduct or finance the RI/FS consistent with the attached AOC and SOW, a paragraph-by-paragraph response to the EPA's AOC and SOW, a detailed work plan identifying how you plan to proceed with the work, and a demonstration of your capability to finance the RI/FS and provide financial assurance pursuant to the AOC. The EPA's letter explained that your response must be received within 60 days of the Special Notice, after which the EPA would evaluate whether an extension of 30 days for further negotiations was warranted. In the Special Notice letter, and as discussed in further detail at the meeting held between the parties on August 15, 2011, the EPA explained that the RI/FS work presented to BNSF was focused on the Black Eagle Railroad Beds corridor (also termed the "Railroad Beds" area of interest, as generally depicted in Figure 2 attached to the Special Notice).

BNSF's response did not provide the EPA with any of the elements of a good faith offer specified in the Special Notice. Your July 25, 2011, letter asserted BNSF was "ready, willing, and able" to participate in the investigation and study of potential contamination of its historical rights of way within the Railroad Beds area of interest. However, at the August 15, 2011, meeting, BNSF explained in greater detail that it was only willing to perform such work at the property it currently owned, a parcel located at the far western end of the Railroad Beds area. This response does not meet the good faith element of providing a statement of willingness to perform the work described. Moreover, BNSF's response did not provide a paragraph-by-paragraph response to the SOW and AOC, a detailed work plan identifying how you plan to proceed with the work, or a demonstration of your capability to finance the RI/FS and provide financial assurance pursuant to the AOC.

EPA's Special Notice also included a demand for payment of the EPA's past response costs at the Site. BNSF did not indicate in its July 25 response letter or at the August 2011 meeting any willingness to reimburse the EPA for its past response costs or any portion thereof.

The Special Notice letter established a 60-day negotiation moratorium. Based on BNSF's response, the EPA is not extending negotiations beyond that deadline and has terminated the Special Notice negotiations emanating from the May 19, 2011, Special Notice letter. The EPA specifically reserved all rights and authorities under the law to issue a unilateral administrative order for the RI/FS work. The EPA also reserves all rights and authorities under the law to perform the necessary RI/FS work itself pursuant to Sections 104 and 106 of CERCLA, and subsequently, under Section 107 of CERCLA, to seek reimbursement from BNSF of all response costs incurred in connection with the action.

II. Other Work at the Site

Subsequent to the August 15, 2011, meeting between BNSF, EPA and the State, on September 8, 2011, the EPA completed negotiations with Atlantic Richfield Company and ARCO Environmental Remediation, LLC, for conduct of a Remedial Investigation/Feasibility Study under an Administrative Settlement Agreement and Order on Consent for Operable Unit 1, EPA Docket No. CERCLA 08-2011-017 (AR AOC). A copy of the signed AR AOC was forwarded to BNSF counsel, Leo Berry, by email

dated October 5, 2011. The work required under the AR AOC includes performance of an RI/FS for OU1 at the Site, but excludes such work at the Railroad Beds area.

III. Unilateral Order for Remedial Investigation / Feasibility Study for Railroad Corridor

The EPA hereby issues to BNSF a Unilateral Administrative Order for Remedial Investigation/ Feasibility Study (Order) (enclosed) in connection with the Railroad Corridor at Operable Unit 1 of the ACM Smelter and Refinery Site (Site), near Great Falls, Montana. The Railroad Corridor area is defined in the Order. The Order is effective ten (10) days from the date of signing by the EPA. The Order requires BNSF to conduct remedial investigation and feasibility study (RI/FS) actions at the Railroad Corridor, as specified in the Order and the Statement of Work attached to the Order. Among other requirements, the Order also requires BNSF to pay the EPA's response costs in overseeing and enforcing the performance of the RI/FS, as defined in the Order.

The Railroad Corridor, as defined in the Order, includes the railroad right-of-way and associated railroad bed materials, including embankment, related railroad operation features, as well as certain adjacent areas utilized and impacted by the railroad. This area includes the community recreational use area situated between the former "High Line" and "Low Line" rights-of-way, a spur track extending north from the high line and a multi-track area south of the main line on the eastern portion of the Corridor. While identifying it as a separate work area for site management purposes, the EPA is maintaining the Railroad Corridor as part of OU1. A map showing the Railroad Corridor is attached to the enclosed Order.

IV. Demand for Reimbursement of Costs

In addition, with this letter, the EPA demands that you reimburse the EPA for its response costs incurred through December 31, 2010, in connection with the Site. In accordance with Section 104 of CERCLA, 42 U.S.C. § 9604, the EPA has already taken certain response actions and incurred certain costs in response to conditions at the Site. These response actions were cited in the Special Notice and are further described in the enclosed Order.

The EPA is seeking to recover, from BNSF, the EPA's response costs in connection with the Site and all interest authorized to be recovered under Section 107(a) of CERCLA. In the Special Notice letter, the EPA identified its approximate total response costs through December 31, 2010, for the Site as \$1,170,000.00, and issued a demand for payment of such costs. On June 1, 2011, the EPA emailed to David Smith, BNSF, the EPA's reconciled past response cost summary for the Site, with a revised total of \$1,242,870.70.

A demand for payment of the same amount, \$1,242,870.70, was also presented to Atlantic Richfield Company and ARCO Environmental Remediation, LLC (collectively "Atlantic Richfield"), in connection with the AR AOC negotiations. In connection with the AR AOC settlement, Atlantic Richfield agreed to pay the EPA a portion of those costs totaling \$1,050,000.00. The agreement with Atlantic Richfield for payment of such amount under the AOC was subject to public comment pursuant to Section 121(i) of CERCLA (*see* 76 Fed. Reg. 64943, October 19, 2011).

Under Section 107(a) of CERCLA, the EPA hereby makes a demand for payment from BNSF for the amount of \$192,870.70, the anticipated remaining unreimbursed portion of the EPA's past response costs in connection with the Site, through December 31, 2010, plus all interest on that amount authorized to be recovered under Section 107(a). The EPA's reduced demand total is subject to the

EPA's determination regarding the AR AOC in light of any public comment received and the EPA's final receipt of payment from Atlantic Richfield. This Demand is made independent of the Order. The EPA reserves all rights and authorities under the law to seek reimbursement in the future of any and all additional response costs incurred after December 31, 2010.

V. Response Deadlines

The schedule for complying with the Order, including conducting the required work, selecting a contractor and project coordinator, submitting detailed work plans and other deliverables, and completing the required final reports, are set forth in the Order. In addition, the mandatory time frames for indicating your intent to comply with the Order and requesting a conference, if desired, are also set forth in the Order.

Negotiations for an Administrative Order on Consent did not achieve an agreement for your voluntary conduct of these activities. As previously discussed with you, the Order, including work requirements and schedules for conduct and completion of the work, are not negotiable. After completion of the activities under this Order, the EPA will evaluate the need for further cleanup actions at the Site.

If you have any questions pertaining to the response action required, please contact Charles Coleman, EPA Remedial Project Manager, at 406-457-5038. Please direct any legal questions to James Stearns, Enforcement Attorney, EPA Denver Office, at 303-312-6912. Any such discussions will not by themselves extend any pertinent response deadline or schedule.

Thank you for your cooperation in this matter.

Sincerely,



Acting Supervisory Attorney
Legal Enforcement Program
Office of Enforcement, Compliance
and Environmental Justice



Kelcey Land, Director
Technical Enforcement Program
Office of Enforcement, Compliance
and Environmental Justice

Enclosure:
Unilateral Administrative Order for Remedial Investigation/Feasibility Study

- cc: Leo Berry, Counsel for BNSF
- Dava Kaitala, Counsel for BNSF
- Richard Sloan, MDEQ
- Kirsten Bowers, MDEQ Legal
- Joe Vranka, 8MO
- James Stearns, 8ENF-L
- Charles Coleman, 8MO
- David Sturm, 8MO
- William Duffy, Esq., Davis Graham & Stubbs
- Marc Ferries, P.E., Atlantic Richfield
- Registered Agent for BNSF

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8

2011 NOV 30 AM 8:21

11-30-11
EPA REGION 8
MONTANA OFFICE

IN THE MATTER OF:
Railroad Corridor
Operable Unit 1
ACM Smelter and Refinery Site
Cascade County, Montana

UNILATERAL ADMINISTRATIVE
ORDER FOR REMEDIAL
INVESTIGATION/FEASIBILITY STUDY

BNSF Railway Company,

U.S. EPA Region 8
CERCLA Docket No. CERCLA-08-2012-0001

Respondent

Proceeding under Section 106(a) of the
Comprehensive Environmental Response,
Compensation, and Liability Act, 42 U.S.C.
§ 9606(a).

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Appendices

- A. Map generally depicting the Site and Operable Unit 1 at the Site
- B. Map generally depicting the Railroad Corridor
- C. Statement of Work
- D. Performance Guarantee forms

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order ("Order") is issued under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, ("CERCLA"), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency ("EPA") by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14-A and 14-14-B. This authority was further re-delegated by the Regional Administrator of EPA Region 8 to the undersigned officials.

2. This Order pertains to the "Railroad Corridor", as defined herein, generally comprising the area of the main railroad line and other former rail line rights-of-way leading to the former ACM smelter facility from the west, on the southern edge of and adjacent to the community of Black Eagle; former railroad spur and multi-track areas associated with these lines; the recreation area and other areas located between the former "high line" and "low line" railroad lines; and adjacent areas impacted by railroad operations. EPA has designated the Railroad Corridor as part of Operable Unit 1 at the ACM Smelter and Refinery Superfund Site, Cascade County, Montana ("Site"). This Order requires Respondent to prepare and perform the remedial investigation/feasibility study ("RI/FS") described herein to: (a) determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Railroad Corridor at the Site; and (b) evaluate remedial alternatives to prevent, mitigate, or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Railroad Corridor, in order to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the actual or threatened release of hazardous substances at or from the Railroad Corridor.

3. EPA has notified the State of Montana (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

II. PARTIES BOUND

4. This Order applies to and is binding upon Respondent and its successors and assigns. Any change in ownership or control of the Site or change in the corporate or partnership status of Respondent, including, but not limited to, any transfer of assets or real or personal property, shall not alter Respondent's responsibilities under this Order.

5. Respondent is liable for implementing all activities required by this Order. Compliance with any provision of this Order shall not excuse or justify noncompliance with any other provision.

6. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Order and comply with this Order. Respondent shall be responsible for any noncompliance with this Order.

III. DEFINITIONS

7. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in appendices to or documents incorporated by reference into this Order, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

b. "Day" or "day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period shall run until the close of business of the next working day.

c. "Effective Date" shall mean the effective date of this Order as provided in Section XXVIII.

d. "Engineering Controls" shall mean constructed containment barriers or systems that control one or more of the following: downward migration, infiltration, or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.

e. "EPA" shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

f. "EPA Hazardous Substance Superfund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

g. "DEQ" shall mean the Montana Department of Environmental Quality and any successor departments or agencies of the State.

h. "Institutional controls" shall mean Proprietary Controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (i) limit land, water, and/or resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (ii) limit land, water, and/or resource use to implement, ensure non-interference with, or ensure the protectiveness of the Work pursuant to this Order; and/or (iii) provide information intended to modify or guide human behavior at or in connection with the Site.

i. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded

annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

j. “National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

k. “Order” shall mean this Unilateral Administrative Order, all appendices attached hereto, and all documents incorporated by reference into this document including, but not limited to, EPA-approved submissions. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Order upon approval by EPA. In the event of conflict between this Order and any appendix or other incorporated document, this Order shall control.

l. “Operable Unit 1” or “OUI” shall mean the “Community Soils Operable Unit”, comprising the residential and other soils and waste materials and related contaminant migration pathways, in and near the unincorporated community of Black Eagle, Montana, and other outlying areas surrounding the former smelter and refinery facility, at or in connection with the ACM Smelter and Refinery Site. The area of Operable Unit 1, including the Community Soils and Outlying Areas areas of interest and the Railroad Corridor, is generally depicted on the map attached as Appendix A.

m. “Paragraph” shall mean a portion of this Order identified by an Arabic numeral or an upper or lower case letter. References to paragraphs in the SOW will be so identified, e.g., “SOW Paragraph 15.”

n. “Parties” shall mean EPA and Respondent.

o. “Proprietary Controls” shall mean easements or covenants running with the land that (i) limit land, water, or resource use and/or provide access rights and (ii) are created pursuant to common law or statutory law by an instrument that is recorded by the owner in the appropriate land records office.

p. “Railroad Corridor” shall mean the area comprising the main railroad line approaching the former ACM smelter facility from the west and the former “high line” and “low line” railroad line rights-of-way leading to the former smelter facility, running generally on the southern edge of and adjacent to the unincorporated community of Black Eagle; former railroad spur and multi-track areas associated with the former main and high lines; the community recreation area, including park areas, ball fields, playground and other areas generally located between the high line and low line railroad lines; and adjacent areas where hazardous substances, pollutants and contaminants from the railroad and railroad operations have been deposited, discharged, released or come to be located. The Railroad Corridor includes, but is not limited to,

the soils, fill and waste material, including ballast and other railroad bed materials and railroad embankment fill materials, and related contaminant migration pathways. The Railroad Corridor main line and former "high line" extend generally from the vicinity of west of 10th Street (at the west end) to the eastern end of the Black Eagle Civic Club property where the former rail line entered the former smelter facility. The Railroad Corridor is generally depicted on the map attached as Appendix B.

q. "RCRA" shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992.

r. "Respondent" shall mean BNSF Railway Company.

s. "Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports, and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 43 (cost of attorney time and any monies paid to secure access, including the amount of just compensation), and Paragraph 49 (emergency response).

t. "Section" shall mean a portion of this Order identified by a Roman numeral. References to sections in the SOW will be so identified, e.g., "SOW Section V."

u. "Site" or "ACM Smelter and Refinery Site" shall mean the National Priorities List Site located generally on the north bank of the Missouri River, north of the center of Great Falls, Montana, at and near the location of the former "Great Falls Refinery" plant operated by Anaconda Copper Mining Company and other companies, encompassing approximately 423 acres at the former plant site, and including those areas where hazardous substances, pollutants and contaminants from the former smelter and refinery and other plant operations have been deposited, discharged, released or come to be located, including but not limited to, the adjacent unincorporated community of Black Eagle, other areas surrounding the former smelter and refinery facility, and portions of the Missouri River. The Site (except possible impacted portions of the Missouri River) is depicted generally on the map attached as Appendix A.

v. "State" shall mean the State Montana, including all its departments, agencies, and instrumentalities.

w. "Statement of Work" or "SOW" shall mean the Statement of Work for development of the RI/FS for the Railroad Corridor, as set forth in Appendix C to this Order, and any modifications made thereto in accordance with this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order as are any modifications made thereto in accordance with this Order.

x. "United States" shall mean the United States of America, and its departments, agencies, and instrumentalities.

y. "Waste Material" shall mean: (i) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (ii) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (iii) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (iv) any "hazardous or deleterious substance" under Section 75-10-701(8), MCA.

z. "Work" shall mean all activities Respondent is required to perform under this Order, except those required by Section XIII (Record Retention).

IV. FINDINGS OF FACT

8. a. The AMC Smelter and Refinery Site is located near Great Falls, Cascade County, Montana, situated on the north bank of the Missouri River, north of and on the opposite side of the river from the Great Falls city center. The Site is the location of the former copper concentrating and smelting facility, referred to in the past as the Anaconda Great Falls Reduction Plant, and later, after operations at the plant shifted to more exclusive emphasis on metal refining, as the Great Falls Refinery (historic plant location and operations are collectively referred to as the "former smelter facility" or "plant".) The unincorporated town of Black Eagle is located immediately to the west and northwest of the former smelter facility. The plant was served by a rail line or lines that approached from the west and led to the former smelter facility through a corridor running just to the south of and adjacent to the main Black Eagle residential area. The former smelter facility property is approximately 423 acres in size. The plant was built and expanded over a period of years on the top and east flank of a prominent feature known as Indian Butte, later referred to as Smelter Hill. The plant facilities extended from the hill top, including the tall stack, down several terraces descending to the north bank of the Missouri River. Elevations at the Site range from approximately 3250 to 3550 feet above sea level.

b. For site management purposes, EPA has designated the Railroad Corridor as part of Operable Unit 1 (OU1) at the Site. OU1 is termed the "Community Soils Operable Unit," and comprises the residential and other soils and waste materials and related contaminant migration pathways, in and near the unincorporated community of Black Eagle, Montana, and other outlying areas surrounding the former smelter and refinery facility, at or in connection with the Site. The former smelter facility and impacted portions of the Missouri River are designated by EPA as Operable Units 2 and 3, respectively, at the Site.

c. The community of Black Eagle includes approximately 400 - 500 homes, community features such as playgrounds and parks, additional commercial properties, and some areas of vacant or unimproved land. Between the former smelter facility property and the residential areas of Black Eagle are the Black Eagle Civic Club facility, a church and associated property, and a property currently owned by the Order of Moose Lodge on which new homes

may be built. Between the Black Eagle residential area and the Missouri River is situated a main railroad line, part of which is still actively used, and two former railroad lines termed the "high line" and "low line" that were used to transport ore and other materials to and from the plant. Additional commercial property and vacant land borders the Missouri River south of the railroad tracks. A recreational use area, including park areas, ball fields and a children's playground utilized by residents of the local community, is situated between the former "high line" and "low line" tracks. Sections of the former railroad right-of-way in the Railroad Corridor have been identified by a local community group as an uncompleted link, and future potential extension of, the regional bike path system. Agricultural, residential, recreational and ranching uses predominate on lands to the east and north of, and outlying, the former smelter facility.

d. For Site management and purposes of this Order, EPA has identified the Railroad Corridor as the area comprising the main railroad line approaching the former smelter facility from the west and the former "high line" and "low line" railroad line rights-of-way, leading to the former smelter facility, running generally on the southern edge of and adjacent to the unincorporated community of Black Eagle; former railroad spur and multi-track areas associated with the main and high lines; and the adjacent community recreation area, including park areas, ball fields, playground and other areas generally located between the former high line and low lines. The Railroad Corridor includes the soils, fill and waste material, including ballast and other railroad bed materials and railroad embankment fill materials, and related contaminant migration pathways. The Railroad Corridor main line and former "high line" extend generally from the vicinity of 10th Street (at the west end) to the eastern end of the Black Eagle Civic Club property where the rail line enters the former smelter facility. The former "low line" leaves the main line near 15th Street in Black Eagle and approaches the plant by a route extending closer to the river. The former "multi-track" area is situated along the south edge of the main line west of 15th Street and a former "spur" track extends north from the "high line" into the "church property" just west of the Black Eagle Civic Club property.

e. The former smelter facility was sited in proximity to the Black Eagle dam on the Missouri River for power utilization. The dam was constructed at Black Eagle falls in 1890.

9. a. The Site was the location of a copper smelter and metal refinery that began in the 1890s. In 1891, the Boston and Montana Consolidated Copper & Silver Mining Company ("Boston and Montana") began construction of a copper refining and reduction facility at the Site. The copper reduction works was built to concentrate and smelt copper ores, primarily ores shipped in by rail from mines near Butte, Montana, utilizing the Railroad Corridor.

b. Under Boston and Montana ownership, the original plant at the Site processed unconcentrated ore in a concentrating mill. Later the concentrated ore was smelted to produce matte copper. A copper refinery was built at the Site in 1892 and was in operation until May 1917, when it was replaced by a refinery built by the successor company, Anaconda Copper Mining Company ("ACM"). By 1918, ACM had largely eliminated smelting operations at the

plant and focused on refining. Under ACM, the plant became known as the Great Falls Refinery.

c. Arrangements between Boston and Montana and subsequent plant owners and the railroad, principally the Great Northern Railway Company and affiliates, provided for the railroad to haul ore and other raw materials to the plant.

d. In the succeeding years, beginning under the ownership of ACM, new facilities and operations were added. These included the addition of electrolytic copper and zinc refinery facilities, a rolling mill department producing copper rod and wire, production lines for ferromanganese used in the production of steel, and operations to produce speciality products like "mineral wool" ("slag wool") and high-purity cadmium. Operations at various times from the 1920s to the 1970s included production of cathode copper, re-smelting or refining of blister copper (to remove arsenic, antimony and other elements that interfered with the electrical conductivity of the blister copper), zinc refining, major growth in copper and zinc production, and construction of arsenic, cadmium and sulphuric acid plants. In 1929, the copper plant included the furnace refinery, copper electrolytic tank house, and anode casting building. The facility also included a zinc electrolytic plant, leaching plant, cadmium plant, residue purification plant, copper rod and wire mill, and roaster building with associated dust chamber, bag house, flue and stack, in addition to various support operations. Specialty metals were produced, such as indium and gallium, germanium, vanadium, manganese nodules, and arsenic products. In the 1950s and 1960s, the plant still produced products such as high purity cadmium, and later aluminum rod, wire and cable. Concentration, smelting and processing of zinc ore containing cadmium and lead continued at the Site into the 1970s.

e. During the operation of the plant, large quantities of slag, tailings, flue dust, and other smelter and refinery wastes were produced. Such process wastes and by-products from the smelting, refining and other metal processing operations contained metals, including but not limited to, lead, arsenic, copper, zinc and cadmium.

f. Demolition of some of the plant facilities began in 1972 and operations at the plant largely ceased in September 1980. Large-scale plant demolition of the plant began in 1981, with related re-vegetation and other activities extending to 1999.

10. a. From the 1890s to the 1980s, BNSF Railway Company and its corporate predecessors-in-interest (herein collectively referred to as "BNSF" unless individually named) owned and operated the railway and railway property, including, but not limited to, the railroad rights-of-way and related transport support facilities at the Railroad Corridor, leading to and serving the former smelter and refinery plant property. BNSF also owned certain railroad track and facilities at the former smelter plant that are not included in the Railroad Corridor.

b. The St. Paul, Minneapolis, and Manitoba Railway Company acquired property interests in the Railroad Corridor area from the Great Falls Water Power and Townsite Company (GFWPTC) in the early 1890s. GFWPTC, the railroad companies and Boston and Montana

worked in concert to promote and establish the former smelter plant. Ownership and operation of the railroad continued under the Great Northern Railway Company and its affiliates and successors-in-interest, including BNSF, over the operational life of the former smelter facility. In 1962, BNSF granted certain property interests at the Railroad Corridor to Cascade County. In 1983, BNSF, through Burlington Northern Railroad Company (BNRR), sold to Atlantic Richfield Company or affiliates, then owners of the plant, all remaining track and facility property it owned at the former smelter facility. In 1994, BNSF (BNRR) sold certain property interests in the Railroad Corridor to the City of Great Falls, and in 1996, sold additional property interests in the Railroad Corridor to the Montana Power Company (now Northwestern Energy). BNSF currently retains ownership of a portion of the western portion of the Railroad Corridor.

c. In serving the smelter and refinery facility at the Site at various times throughout the plant's history of operation, BNSF (through Great Northern Railway Company and other affiliates) hauled a variety of materials to and from the facility, utilizing the Railroad Corridor. Rail service at the former smelter facility began in connection with the startup of plant operations. From the 1890s until plant shutdown in the 1980s, BNSF transported significant quantities of ore, zinc, copper, copper matte, lead, lead matte, copper pigs, cakes, bars, slabs, ingots, granulated copper, and other forms of cast copper, various metal concentrates and other metal and metal-containing products, bi-products and raw materials to and/or from the former smelter and refinery plant.

d. The ores and other materials transported by BNSF to and from the plant contained metals including, but not limited to, arsenic, cadmium, copper, lead and zinc.

11. a. Contamination came to be located at the Railroad Corridor in two principal ways. First, BNSF transported materials contaminated with metals, including, but not limited to, arsenic, cadmium, copper, lead and zinc, to the Railroad Corridor for construction and maintenance of the railroad lines, including track ballast and other sub-track support materials, and for creating a large embankment that provided a level track extending over a coulee as it approached the former smelter facility. Second, the ores and other materials transported by BNSF to and away from the plant were released at the Railroad Corridor during and as a consequence of transport by the railroad. Spills and leakage of materials contaminated with metals, including, but not limited to, arsenic, cadmium copper, lead and zinc, occurred during the nearly 90 years of shipping over these tracks.

b. The contaminated soil, fill and waste materials used by BNSF in construction of the railroad lines in the Railroad Corridor was obtained from either the former smelter plant or other off-site smelter or fill material sources. Smelter slag or other metal-containing smelter and refinery waste materials may have been used as and during construction of portions of the railroad bed and embankment.

c. Operation of the railroad through the Railroad Corridor has impacted adjacent areas by migration and other means of transport of contaminated materials from the former

railroad rights-of-way. Adjacent areas include land along both sides of the length of the former railroad rights-of-way and the community recreational use area located between the former “high line” and “low line” tracks. Adjacent areas within the Railroad Corridor have been contaminated by various means, principally through migration of waste materials from the railroad rights-of-way by settling, spillage, erosion and water transport during precipitation events, earth moving and other human activity associated with operation of the railroad, infiltration of water during precipitation events causing leaching of surface contamination to the subsurface, and by aerial (wind) transport of dust and particulate material.

d. The contaminated media, including but not limited to soil, fill and waste materials at the Railroad Corridor contain various metals, including but not limited to, arsenic, cadmium, copper, lead and zinc. These metals are among the metals identified by EPA as “contaminants of concern” at the Railroad Corridor and at the Site.

12. a. Previous sampling efforts focusing on the Black Eagle residential area have been conducted that included limited samples within the Railroad Corridor. DEQ samples taken in December 2001 from the railroad bed near 14th Street in the Railroad Corridor showed elevated metals, including arsenic ranging from 152 – 205 mg/l (ppm), copper from 1,200 – 2,630 mg/l, and lead from 2,490 – 4,430 mg/l.

b. The 2003 EPA Expanded Site Inspection included three samples in the Railroad Corridor, for which metals, including arsenic, cadmium, chromium, copper, iron, lead, mercury, silver and zinc, were detected at greater than three times their respective background concentrations. In that study, samples showed concentrations of arsenic ranging up to 445 mg/l, cadmium at 582 mg/l, copper up to 2,920 mg/l, lead above 7,000 mg/l and zinc ranging from 5,090 to 54,200 mg/l. These concentrations exceed EPA human health risk-based screening levels, which are, respectively, arsenic (40 mg/l), cadmium (70 mg/l), copper (310 mg/l), lead (400 mg/l) and zinc (2300 mg/l).

c. EPA’s 2008 Site Assessment study of residential yards in Black Eagle included playground and ball field samples from the Railroad Corridor showing in excess of three times background concentrations for arsenic, cadmium, copper, lead and zinc. Samples showed arsenic at 62 mg/kg (ppm) and copper at 320 mg/kg, exceeding EPA risk-based screening levels.

d. The Railroad Corridor has been the subject of a recent focused preliminary soil investigation by EPA. In 2010, EPA’s investigation showed elevated levels of arsenic, cadmium, copper, lead, zinc and other metals, above the respective EPA health risk-based screening levels. Samples from the Railroad Corridor which were analyzed for total metals showed maximum measured total metal concentrations as follows: arsenic 1850 mg/kg, copper 16,800 mg/kg, lead 3550 mg/kg and zinc 20,600 mg/kg. Samples from the railroad corridor which had total metals concentrations high enough to potentially cause the soil to be characteristically hazardous were analyzed by the Toxicity Characteristic Leaching Procedure (TCLP). Concentrations of cadmium, measured at 5.21 mg/l, and lead, measured at 29.7 mg/l, at the Railroad Corridor

exceeded EPA's regulatory levels under RCRA, which are, respectively, 1.0 mg/l cadmium and 5.0 mg/l lead. Metal contamination of the railroad bed subsurface was shown to extend at minimum from the west smelter facility property boundary to Highway 87; and for surface soils extending from the former smelter property west as far as 10th Street.

13. a. Humans are at risk from exposure to the waste materials containing arsenic, cadmium, copper, lead and zinc and other metals at and migrating from the Railroad Corridor. Pathways for exposure to contamination at the Railroad Corridor include, but are not limited to, direct exposure by dermal contact, incidental soil ingestion and contact exposure pathways with the contaminants that have migrated from the Railroad Corridor to residential soils and structures and adjacent recreational use areas through surface water drainage, fugitive dust, and human activity. Weather and precipitation events may cause erosion and other migration of contamination from the Railroad Corridor to adjacent areas, including residential yards. Nearby residents and recreational users of the Railroad Corridor are at risk from direct exposure to contaminated dust, buried waste that becomes exposed, soils, surface water and other waste materials. Residents may be exposed through inadvertent ingestion and inhalation of contaminated dust and particulates, including such materials transported by wind (aerial transport) and transported on shoes and clothing to homes and other interior environments. Terrestrial organisms and plant communities may also suffer adverse effects from exposure to these waste materials.

b. The main contaminated media at the Railroad Corridor are solid wastes, waste materials, railroad-related structures, soils, surface water run-off and surface water sediments. Materials at the Railroad Corridor may be a source of airborne contaminants.

c. Concentrations of arsenic, cadmium, copper, lead and zinc in the Railroad Corridor exceed the respective EPA human health risk-based screening levels and benchmarks.

14. The main contaminants of concern (COCs) associated with the above noted sources and exposure pathways at the Railroad Corridor are arsenic, cadmium, copper, lead and zinc, but also include antimony, chromium, cobalt, iron, manganese, mercury, nickel, selenium, silver and vanadium. Arsenic, cadmium, copper, lead, zinc, and other hazardous substances and pollutants and contaminants are contained in the soils, solid waste, waste materials, railroad-related structures, surface water and sediments, and fugitive dust at various areas at the Railroad Corridor, in concentrations and quantities that may pose an imminent and substantial endangerment to the public health or welfare or the environment.

* *Zinc* Zinc produces acute toxicity in freshwater organisms over a range of concentrations from 90 to 58,100 ug/liter, and appears to be less toxic in harder water. Acute toxicity is similar for freshwater fish and invertebrates. In many types of aquatic plants and animals, growth, survival, and reproduction can all be adversely affected by elevated zinc levels. A final acute-chronic ratio for freshwater species of 3.0 has been reported.

Zinc is an essential element necessary for maintaining good health, but high doses can be harmful to humans. Oral ingestion of large doses of zinc may cause stomach cramps, nausea, and vomiting. Continued ingestion of large doses may result in anemia, damage to the pancreas, and lower levels of high density lipoprotein cholesterol.

* *Cadmium*. At sufficient concentrations, cadmium has been shown to be a carcinogen in both animal studies and occupationally exposed groups of humans via the inhalation route of exposure. Laboratory experiments suggest that cadmium may have adverse effects on reproduction in fish at levels present in lightly to moderately polluted waters. At sufficient concentrations, exposure and duration, cadmium is highly toxic to wildlife; it is cancer-causing and teratogenic and potentially mutation-causing, with severe sublethal and lethal effects at low environmental concentrations. It bio-accumulates at all trophic levels, accumulating in the livers and kidneys of fish. Crustaceans appear to be more sensitive to cadmium than fish and mollusks.

Cadmium can be toxic to plants at lower soil concentrations than other heavy metals and is more readily taken up than other metals.

* *Copper* At sufficient concentrations, exposure and duration, copper produces acute toxicity in freshwater animals and data is available for species in 41 Genera. At a hardness of 50 mg/L, the genera range in sensitivity from 16.74 ug/L for *Ptychocheilus* to 10,240 ug/L for *Aeroneuria*. Data for eight species indicates that acute toxicity also decreases with increases in alkalinity and total organic carbon. Chronic values are available for 15 freshwater species and range from 3.873 ug/L for brook trout to 60.36 ug/L for northern pike. Fish and invertebrate species seem to be about equally sensitive to the chronic toxicity of copper. At sufficient concentrations, exposure and duration, copper is highly toxic in aquatic environments and has effects in fish, invertebrates and amphibians. Copper will bio-concentrate in many different organs in fish (potential low, however) and mollusks. Copper sulfates and other copper compounds are algacides, with sensitive algae potentially affected by free copper at low ppb concentrations. Toxicity tests have been conducted on copper with a wide range of freshwater plants, and their sensitivities are similar to those of animals.

Copper is an essential element necessary for maintaining good health in humans, but high doses can be harmful. Oral ingestion of high amounts of copper may cause vomiting diarrhea, stomach cramps, and nausea. Chronic ingestion of high amounts of copper can cause liver and kidney damage.

* *Arsenic* Excess exposure to arsenic is known to cause a variety of adverse health effects in humans. These effects may depend on concentration, form, exposure and duration. Arsenic is a known human carcinogen. Inhalation exposure is associated with increased risk of lung, gastrointestinal, renal or bladder cancer. Oral exposure to arsenic is associated with skin, liver, and bladder cancer. At very high doses, oral exposure to arsenic elicits nausea and vomiting. Lower doses over a chronic time period may elicit skin abnormalities, such as hyperkeratosis and kidney and liver toxicity.

* *Lead* At high doses for sufficient duration, lead exposure is associated with adverse effects on reproduction and development, as well as inhibition of heme synthesis. At lower doses with sufficient duration, impairment of the nervous system in young children is considered to be of greatest concern. Younger children are more susceptible to lead exposure because they absorb lead from their gastrointestinal tracts at a greater rate than adults do, their neurological systems are still rapidly developing, and they have more direct contact with soil and indoor dust than adults do. These neurological effects manifest as decreased I.Q., shortened attention span, and decreased hand and eye coordination. EPA classifies lead as a B2 carcinogen. Studies in animals show an increased incidence of kidney tumors in association with very high levels of lead exposure.

15. a. The Great Northern Railway Company (GN) was incorporated in the State of Minnesota in 1856, and is currently listed as an inactive corporation in Montana. GN began operations under the name of Minnesota and Pacific Railroad and other affiliated railroad companies. In approximately 1879, the Minnesota and Pacific Railroad reorganized under the name of St. Paul, Minneapolis, and Manitoba Railway Company. In approximately 1889 - 1890, reorganization, corporate name changes, and acquisition and/or merger of the Montana Central Railway Company, Minnesota and Pacific Railroad, and St. Paul, Minneapolis, and Manitoba Railway Company resulted in the formation of the Great Northern Railway Company (GNRC).

b. In 1970, GNRC merged with at least three other railroads to create the Burlington Northern Railroad Company (BNRR). In 1995, the Burlington Northern Santa Fe Corporation, a holding company, was created with the merger of Burlington Northern, Inc., parent of BNRR, and the Santa Fe Pacific Corporation, which owned the Atchison, Topeka and Santa Fe Railway (AT&SF). In 1996, the related merger of BNRR, wholly owned by Burlington Northern Santa Fe Corporation, with AT&SF was effected resulting in the formation of the Burlington Northern and Santa Fe Railway Company. In 2005, Burlington Northern and Santa Fe Railway Company changed its name to BNSF Railway Company.

c. BNSF Railway Company is a wholly-owned subsidiary of Burlington Northern Santa Fe, L.L.C., a Delaware limited liability company. BNSF Railway Company and affiliates were purchased by Berkshire Hathaway, Inc., in 2010.

d. As a result of one or more mergers, restructurings, transfers of assets, continuations of business activities, or other corporate action, BNSF Railway Company is the successor-in-interest to, and has assumed the liabilities incurred by, Great Northern Pacific & Burlington Lines, Inc., Burlington Northern Inc., BNRR, the Burlington Northern and Santa Fe Railway Company, GN, GNRC, Montana Central Railway Company, Minnesota and Pacific Railroad, and the St. Paul, Minneapolis, and Manitoba Railway Company, and their subsidiaries and related corporations or businesses including historic predecessors-in-interest.

e. Respondent BNSF Railway Company is a Delaware corporation, incorporated in 1961, and listed as active and in good standing, with headquarters in Fort Worth, Texas.

f. BNSF Railway Company is the current owner and operator of a portion of the Railroad Corridor. Respondent BNSF Railway Company and its predecessors-in-interest owned and/or operated the facilities at the Railroad Corridor at the time of disposal of hazardous substances at the facilities, arranged for disposal, or arranged with a transporter for transport for disposal of hazardous substances at the facilities at the Railroad Corridor, and accepted hazardous substances for transport to the facilities at the Railroad Corridor.

16. a. The ACM Smelter and Refinery Site was proposed for inclusion on the National Priorities List ("NPL") pursuant to CERCLA Section 105, 42 U.S.C. § 9605, on March 4, 2010, 75 Fed. Reg. 9843. The Site was placed on the NPL pursuant to CERCLA Section 105, 42 U.S.C. § 9605, by publication in the Federal Register on March 10, 2011, 76 Fed. Reg. 13089.

b. On September 8, 2011, EPA entered into a settlement with Atlantic Richfield Company and ARCO Environmental Remediation, L.L.C. (collectively "AR") (Administrative Settlement Agreement and Order on Consent for Operable Unit 1 Remedial Investigation/Feasibility Study, EPA Docket No. CERCLA-08-2011-0017), requiring AR to conduct a Remedial Investigation and Feasibility Study for portions of OU1. The areas where the RI/FS work is to be performed by AR under the agreement does not include the Railroad Corridor.

c. On October 6, 2011, EPA signed an Action Memorandum for a Removal Action at the Moose Lodge property, within OU1 at the Site. The Moose Lodge property is anticipated for residential development. EPA is conducting the Removal Action in October and November 2011.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

17. Based on the Findings of Fact set forth above, and the Administrative Record supporting the RI/FS, EPA has determined that:

a. The Railroad Corridor, including the former railroad rights-of-way and the community recreation area is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

c. Respondent is a liable party under one or more provisions of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

- i. Respondent is the "owner" and/or "operator" of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).
- ii. Respondent was the "owner" and/or "operator" of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).
- iii. Respondent arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).
- iv. Respondent accepted hazardous substances for transport to the facility, within the meaning of Section 107(a)(4) of CERCLA, 42 U.S.C. § 9607(a)(4).

d. The contamination, including, but not limited to, arsenic, cadmium, copper, lead, zinc, antimony, chromium, cobalt, iron, manganese, mercury, nickel, selenium, silver and vanadium, found at the Railroad Corridor, as described in the Findings of Fact above, includes "hazardous substances," as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and "pollutants or contaminants," as defined by Section 101(33) of CERCLA, 42 U.S.C. § 9601(33), that may present an imminent and substantial danger to public health or welfare under Section 104(a)(1) of CERCLA, 42 U.S.C. § 9604(a)(1).

e. The conditions described in Paragraphs 8-14 of the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The conditions at the Railroad Corridor may constitute a threat to public health or welfare or the environment, based on the factors set forth in Section 300.415(b)(2) of the NCP. These factors include, but are not limited to, the following:

- i. actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances and pollutants and contaminants; this factor is present at the Railroad Corridor due to the existence of nearby residential populations that utilize the Railroad Corridor for recreational purposes;
- ii. high levels of hazardous substances and pollutants and contaminants in soils largely at or near the surface, that may migrate; this factor is present at the Railroad Corridor due to the existence of

contamination contained in the embankment and other features at the Railroad Corridor that are susceptible to erosion and surface water run-off;

iii. weather conditions that may cause hazardous substances and pollutants and contaminants to migrate or be released; this factor is present at the Railroad Corridor due to the existence of wind and dry conditions that create airborne dust and particulate materials carried that may carry to nearby residential and residential use areas; and

iv. the unavailability of other appropriate federal or state response mechanisms to respond to the release; this factor supports the actions required by this Order at the Railroad Corridor because there are no other federal or state response funding or mechanisms available or planned to address the response needs at the Railroad Corridor.

g. The President has determined that the conditions at the Railroad Corridor may constitute an imminent and substantial endangerment to public health or welfare or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

h. The actions required by this Order are necessary to protect public health or welfare or the environment, are consistent with CERCLA and the NCP, and will expedite effective remedial action.

VI. ORDER

18. Based upon the foregoing Findings of Fact, Conclusions of Law and Determinations, and the Administrative Record for the Railroad Corridor, it is hereby Ordered that Respondent shall comply with all provisions of this Order and any modifications hereto, including, but not limited to, all appendices to this Order and all documents incorporated by reference into this Order.

VII. NOTICE OF INTENT TO COMPLY

19. a. On or before the Effective Date, Respondent shall notify EPA in writing of Respondent's irrevocable intent to comply with this Order. Such written notice shall be sent to:

James Stearns (8ENF-L)
Legal Enforcement Program
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
303 312-6912

Respondent's written notice shall describe, using facts that exist on or prior to the Effective Date, any "sufficient cause" defenses asserted by Respondent under Sections 106(b) and 107(c)(3) of CERCLA. The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondent's assertions.

b. Failure of Respondent to provide such notification within this time period shall be, as of the Effective Date, treated as a violation of this Order by Respondent.

VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

20. Selection of Contractors, Personnel. All Work performed under this Order shall be under the direction and supervision of qualified personnel. Within thirty (30) days after the Effective Date, and before the Work outlined below begins, Respondent shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories to be used in carrying out such Work. If, after the commencement of Work, Respondent retains additional contractor(s) or subcontractor(s), Respondent shall notify EPA of the name(s) and qualification(s) of such contractor(s) or subcontractor(s) retained to perform the Work at least seven (7) days prior to commencement of Work by such additional contractor(s) or subcontractor(s). EPA retains the right, at any time, to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify EPA of that contractor's or subcontractor's name and qualifications within fifteen (15) days after EPA's disapproval. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor has a quality system that complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995, or most recent version), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP shall be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001; Reissued May 2006) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review for verification that such persons meet minimum technical background and experience requirements.

21. Within fifteen (15) days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of the Work required by this Order and shall submit in writing to EPA the designated Project Coordinator's name, address, telephone number, electronic mail address, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during the Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within fifteen (15) days following EPA's disapproval. Respondent shall have the right to change its Project

Coordinator, subject to EPA's right to disapprove. Respondent shall notify EPA seven (7) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the Project Coordinator. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondent.

22. a. EPA has designated Charles Coleman of the EPA Region 8 Montana Office, Superfund Branch, as its Remedial Project Manager ("RPM"). The RPM will serve as EPA's Project Coordinator. EPA will notify Respondent of a change of its designated RPM. Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order to:

Charles Coleman, 8MO
Remedial Project Manager
U.S. EPA Region 8, Montana Office
Federal Building
10 West 15th Street
Suite 3200, Helena, MT 59626.

Delivery of reports, notices and other documents required pursuant to this Order shall be in electronic form or by certified U.S. Mail, unless otherwise directed by EPA's RPM.

b. DEQ has designated Richard Sloan of the DEQ Mine Waste Cleanup Bureau, Federal Superfund Section, as its State Project Officer. DEQ will notify Respondent of any change of its designated State Project Officer. Except as otherwise provided in this Settlement Agreement, Respondent shall direct a copy of all submissions to EPA required by this Settlement Agreement to the State Project Officer at DEQ Remediation Division, P.O. Box 200901, Helena, Montana 59620-0901. Delivery of reports, notices and other documents required pursuant to this Settlement Agreement shall be in electronic form or by U.S. Mail.

23. EPA's RPM shall have the authority lawfully vested in a Remedial Project Manager and On-Scene Coordinator ("OSC") by the NCP. In addition, EPA's RPM shall have the authority, consistent with the NCP, to halt any Work required by this Order, and to take any necessary response action when s/he determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA RPM from the area under study pursuant to this Order shall not be the cause for the stoppage or delay of Work .

24. EPA shall arrange for a qualified person to assist in its oversight and review of the conduct of the RI/FS, as required by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). Such person shall have the authority to observe Work and make inquiries in the absence of EPA, but not to modify the RI/FS Work Plan.

IX. WORK TO BE PERFORMED

25. Respondent shall conduct the RI/FS in accordance with the provisions of this Order, the SOW, CERCLA, the NCP, and EPA guidance, including, but not limited to the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" ("RI/FS Guidance") (OSWER Directive # 9355.3-01, October 1988 or subsequently issued guidance), "Guidance for Data Useability in Risk Assessment" (OSWER Directive #9285.7-09A, April 1992 or subsequently issued guidance), and guidance referenced therein, and guidance referenced in the SOW, as may be amended or modified by EPA. The Remedial Investigation ("RI") shall consist of collecting data to characterize site conditions, determining the nature and extent of the contamination at or from the Site, assessing risk to human health and the environment (to be performed by EPA), and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered. The Feasibility Study ("FS") shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action to prevent, mitigate, or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site. The alternatives evaluated must include, but shall not be limited to, the range of alternatives described in the NCP, and shall include remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In evaluating the alternatives, Respondent shall address the factors required to be taken into account by Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.430(e) of the NCP, 40 C.F.R. § 300.430(e). Respondent shall prepare and submit all deliverables under this Order in accordance with the schedules set forth herein, in a form acceptable to EPA. Upon request by EPA, Respondent shall submit to EPA and DEQ in electronic form, overnight delivery, or by certified mail all portions of any plan, report or other deliverable Respondent is required to submit pursuant to provisions of this Order.

26. Upon receipt of the draft FS Report, EPA will evaluate, as necessary, the estimates of the risk to the public and environment that are expected to remain after a particular remedial alternative has been completed and will evaluate the cost, implementability, and long-term effectiveness of any proposed Institutional Controls for that alternative.

27. Modification of the RI/FS Work Plan.

a. If at any time during the RI/FS process, Respondent identifies a need for additional data, Respondent shall submit a memorandum documenting the need for additional data to the EPA RPM, with a copy to DEQ, within thirty (30) days after identification. EPA in its discretion will determine whether the additional data will be collected by Respondent and whether it will be incorporated into plans, reports, and other deliverables.

b. In the event of unanticipated or changed circumstances at the Site, Respondent shall notify the EPA RPM and the State Project Officer by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In the event that EPA determines that

the unanticipated or changed circumstances warrant changes in the RI/FS Work Plan, EPA shall modify or amend the RI/FS Work Plan in writing accordingly. Respondent shall perform the RI/FS Work Plan as modified or amended.

c. EPA may determine that, in addition to tasks defined in the initially approved RI/FS Work Plan, other additional Work may be necessary to accomplish the objectives of the RI/FS. Respondent shall perform these response actions in addition to those required by the initially approved RI/FS Work Plan, including any approved modification, if EPA determines that such actions are necessary for a thorough RI/FS.

d. Respondent shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the RI/FS Work Plan or written RI/FS Work Plan supplement. EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondent for the costs incurred in performing the Work, and/or to seek any other appropriate relief.

e. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions at the Site.

28. Off-Site Shipment of Waste Material.

a. Respondent may ship Waste Material from the Site to an off-Site facility only if they verify, prior to any shipment, that the off-Site facility is operating in compliance with the requirements of Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440, by obtaining a determination from EPA that the proposed receiving facility is operating in compliance with 42 U.S.C. § 9621(d)(3) and 40 C.F.R. § 300.440.

b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, it provides written notice to the appropriate state environmental official in the receiving facility's state and to the EPA RPM with a copy to DEQ. This notice requirement shall not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice shall include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent shall also notify the state environmental official referenced above, the EPA RPM and DEQ of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondent shall provide the written notice after the award of the contract for the RI/FS study and before the Waste Material is shipped.

29. Meetings. Respondent shall make presentations at, and participate in, meetings at the request of EPA during the preparation of the RI/FS. In addition to discussion of the technical

aspects of the RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion and EPA will notify and invite DEQ to attend any such meeting.

30. Progress Reports. In addition to the plans, reports, and other deliverables set forth in this Order, Respondent shall submit written monthly progress reports to EPA and DEQ by the 10th day of the following month. At a minimum, with respect to the preceding month, these progress reports shall: (a) describe the actions that have been taken to comply with this Order during that month; (b) include, or make available by reference to a web-available data site, all results of sampling and tests and all other data received by Respondent; (c) describe Work planned for the next two months with schedules relating such Work to the overall project schedule for RI/FS completion; and (d) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

X. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

31. After review of any plan, report, or other deliverable that is required to be submitted for approval pursuant to this Order, in a notice to Respondent EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondent modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondent at least one notice of deficiency and an opportunity to cure within ten (10) days after receipt of EPA's notification of the required revisions, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

32. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 31.a, 31.b, 31.c, or 31.e, Respondent shall proceed to take any action required by the plan, report, or other deliverable, as approved or modified by EPA, and in accordance with the schedule approved by EPA. Following EPA approval or modification of a submission or portion thereof, Respondent shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Paragraph 31.c and the submission had a material defect, such defect may be considered a violation of this order and may subject Respondent to civil penalties in accordance with Section XVII (Enforcement).

33. Resubmission.

a. Upon receipt of a notice of disapproval, Respondent shall, within fourteen (14) days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable to EPA for approval, with a copy to DEQ. Respondent may be subject to penalties in accordance with Section XVII (Enforcement) if the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 34 and 35.

b. Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for penalties under Section XVII (Enforcement) for violations of this Order.

c. Respondent shall not proceed with any activities or tasks dependent on the following deliverables until receiving EPA approval, approval on condition, or modification of such deliverables: RI/FS Work Plan, Quality Assurance Project Plans (including, but not limited to, Sampling and Analysis Plans)(QAPPs); Health and Safety Plan; Draft Remedial Investigation Report, and Treatability Studies Work Plans and Treatability Studies Technical Reports, and Draft Feasibility Study Report. While awaiting EPA approval, approval on condition, or modification of these deliverables, Respondent shall proceed with all other tasks and activities that may be conducted independently of these deliverables, in accordance with the schedule set forth under this Order.

d. For all remaining deliverables not listed in Paragraph 33.c, Respondent shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval of the submitted deliverable. EPA reserves the right to stop Respondent from proceeding further, either temporarily or permanently, on any task, activity, or deliverable at any point during the Work.

34. If EPA disapproves a resubmitted plan, report, or other deliverable, or portion thereof, EPA may again direct Respondent to correct the deficiencies. EPA shall also retain the right to modify or develop the plan, report, or other deliverable. Respondent shall implement any such plan, report, or deliverable as corrected, modified, or developed by EPA.

35. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Respondent shall be deemed in violation of this Order for failure to submit such plan, report, or other deliverable timely and adequately. Respondent may be subject to penalties for such violation as provided in Section XVII (Enforcement).

36. In the event that EPA takes over some of the tasks, but not the preparation of the RI Report or the FS Report, Respondent shall incorporate and integrate information supplied by EPA into the final reports.

37. All plans, reports, and other deliverables submitted to EPA under this Order shall, upon approval or modification by EPA, be incorporated into and become fully enforceable under this Order. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Order, the approved or modified portion shall be incorporated into and enforceable under this Order.

38. Neither failure of EPA to expressly approve or disapprove of Respondent's submissions within a specified time period, nor the absence of comments, shall be construed as

approval by EPA. Whether or not EPA gives express approval for Respondent's deliverables, Respondent is responsible for preparing deliverables acceptable to EPA.

XI. QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION

39. Quality Assurance and Sampling. Respondent shall assure that Work performed, samples taken, and analyses conducted conform to the requirements of the SOW, the QAPPs, and guidance identified therein. Respondent will assure that field personnel used by Respondent are properly trained in the use of field equipment and in chain of custody procedures. Respondent shall only use laboratories that have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001; Reissued May 2006) or equivalent documentation as determined by EPA.

40. a. All sampling and analyses performed pursuant to this Order shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001; Reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements. Upon EPA's request, Respondent shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

b. Upon EPA's request, Respondent shall have such a laboratory analyze samples submitted by EPA for QA monitoring. Respondent shall verbally notify EPA and the State at least five (5) days prior to conducting significant field events as described in the SOW, RI/FS Work Plan, and QAPPs. At EPA's verbal or written request, or the request of EPA's oversight assistant, Respondent shall allow split or duplicate samples to be taken by EPA (and its authorized representatives) or the State of any samples collected in implementing this Order. All split samples of Respondent shall be analyzed by the methods identified in the QAPPs; provided that EPA's portion of the split may be analyzed pursuant to an alternate EPA-approved QAPP. EPA shall have the right to take any additional samples that EPA deems necessary.

c. All results of sampling, tests, modeling, or other data (including raw data) generated by Respondent, or on Respondent's behalf, during the period that this Order is effective, shall be submitted to EPA in the next monthly progress report as described in Paragraph 30.

41. Access to Information.

a. Respondent shall provide to EPA and DEQ, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within its possession or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondent shall also make available to EPA and DEQ, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

b. Respondent may assert business confidentiality claims covering part or all of the Records submitted to EPA and DEQ under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Records determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA and DEQ, or if EPA has notified Respondent that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent. Respondent shall segregate and clearly identify all Records submitted under this Order for which Respondent assert business confidentiality claims.

c. Respondent may assert that certain Records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing Records, it shall provide EPA and DEQ with the following: (i) the title of the Record; (ii) the date of the Record; (iii) the name, title, affiliation (e.g., company or firm), and address of the author of the Record; (iv) the name and title of each addressee and recipient; (v) a description of the contents of the Record; and (vi) the privilege asserted by Respondent. If a claim of privilege applies only to a portion of a Record, the Record shall be provided to EPA in redacted form to mask the privileged portion only. Respondent shall retain all Records that it claims to be privileged until EPA has had a reasonable opportunity to challenge the privilege claim and any such challenge has been resolved in Respondent's favor.

d. No Records created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged or confidential.

e. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

42. If the Site, or any other property where access is needed to implement this Order, is owned or controlled by Respondent, Respondent shall, commencing on the Effective Date, provide EPA and DEQ, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Order. These individuals shall be permitted to move freely at the Site and appropriate off-Site areas in order to conduct actions that EPA determines to be necessary.

43. Where any action under this Order is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within thirty (30) days after the Effective Date, or as otherwise specified in writing by the EPA RPM. Any such access agreement shall provide reasonable access for Respondent and its representatives, including contractors, for the purpose of conducting any activity related to this Order, and for EPA, DEQ, and their representatives to move freely at the Site in order to conduct actions that EPA determines to be necessary. Respondent shall immediately notify EPA if after using its best efforts it is unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondent shall describe in writing its efforts, including the dates, thereof, to timely obtain access. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the actions described herein, using such means as EPA deems appropriate. EPA reserves the right to seek payment from Respondent for all costs, including cost of attorneys' time, incurred by the United States in obtaining such access.

44. Notwithstanding any provision of this Order, EPA and DEQ retain all of their access authorities and rights, as well as all of their rights to require land/resource use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIII. RECORD RETENTION

45. During the pendency of this Order and for a minimum of 10 years after commencement of construction of any remedial action, Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the liability of any person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractor and agents) must retain, in addition, copies of all data generated during performance of the Work and not contained in the aforementioned Records to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

46. At the conclusion of this document retention period, Respondent shall notify EPA and DEQ at least 90 days prior to the destruction of any such Records, and, upon request by EPA or DEQ, Respondent shall deliver any such Records to EPA or DEQ. Respondent may assert that certain Records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, it shall provide EPA or DEQ with the following: (a) the title of the Record; (b) the date of the Record; (c) the name, title, affiliation (e.g. company or firm) of the author of the Record; (d) the name and title of each addressee and recipient; (e) a description of the subject of the Record; and (f) the privilege asserted by Respondent. If a claim of privilege applies only to a portion of a Record, the Record shall be provided to EPA in redacted form to mask the privileged portion only. Respondent shall retain all Records that it claims to be privileged until EPA has had a reasonable opportunity to challenge the privilege claim and any such challenge has been resolved in Respondent's favor. However, no Records created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged or confidential.

47. Within thirty (3) days after the Effective Date, Respondent shall submit a written certification to EPA's RPM that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since the earlier of notification of potential liability by EPA or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA or State requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, or state law.

XIV. COMPLIANCE WITH OTHER LAWS

48. Respondent shall comply with all applicable state, federal and local laws and regulations when performing the RI/FS. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work that is not on-site requires a federal, state, or local government permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

49. In the event of any action or occurrence during performance of the Work that causes or threatens a release of any Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety

Plan, in order to prevent, abate, or minimize any such release or threat of release or endangerment caused or threatened by the release. Respondent shall also immediately notify the EPA RPM or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Response Unit, EPA Region 8, at (303) 293-1788, and the National Response Center at (800) 424-8802 (for hazardous substances releases only), of the incident or Site conditions. Respondent shall also promptly notify the State Project Officer. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Payment of Response Costs).

50. Respondent shall submit a written report to EPA, with a copy to DEQ, within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, et seq., or any state or local reporting requirements.

XVI. PAYMENT OF RESPONSE COSTS

51. Upon EPA's written demand, Respondent shall pay EPA all Response Costs incurred or to be incurred in connection with this Order. On a periodic basis, EPA will send Respondent an accounting of all Response Costs incurred by the United States with respect to this Order that consists of an EPA Regionally-prepared cost summary, which includes direct and indirect costs incurred by EPA, its contractors, and the Department of Justice.

52. Respondent shall make all payments within 30 days after receipt of each written demand requiring payment. Payment shall be made to EPA by Fedwire Electronic Funds Transfer ("EFT") to:

Federal Reserve Bank of New York
ABA = 021030004
Account = 68010727
SWIFT address = FRNYUS33
33 Liberty Street
New York NY 10045
Field Tag 4200 of the Fedwire message should read "D 68010727 Environmental Protection Agency"

and shall reference Site/Spill ID Number #08-19 and the EPA docket number for this action.

Payment by Respondent may also be made to EPA by ACH or by online payment:

For ACH payment:

Payment by Respondent shall be made to EPA by Automated Clearinghouse ("ACH") to:

US Treasury REX / Cashlink ACH Receiver
PNC Bank / Remittance Express
ABA: 051036706
Account Number: 310006, Environmental Protection Agency
CTX Format Transaction Code 22 – checking

Physical location of US Treasury facility:
5700 Rivertech Court
Riverdale MD 20737

and shall reference Site/Spill ID Number #08-19 and the EPA docket number for this action.

For online payment:

Payment by Respondent shall be made to EPA at <https://www.pay.gov> to the U.S. EPA account in accordance with instructions to be provided to Respondent by EPA.

53. At the time of payment, Respondent shall send notice that payment has been made to:

Enforcement Specialist - ACM Smelter and Refinery Site
U.S. EPA Region 8, Montana Office (8MO)
Federal Building
10 West 15th Street, Suite 3200
Helena, MT 59626

and

U.S. Environmental Protection Agency, Region 8
Martha Walker, FMO (8TMS-FMP)
1595 Wynkoop Street
Denver, CO 80202-1129

and to the EPA Cincinnati Finance Office by email at acctreceivable.cinwd@epa.gov, or by mail to:

Dana Sherrer, NWD
EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

Such notices shall reference Site/Spill ID Number #08-19 and EPA docket number for this action.

54. In the event that the payments for Response Costs are not made within 30 days after Respondent's receipt of a written demand requiring payment, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section. Respondent shall make all payments required by this Paragraph in the manner described in Paragraphs 52 and 53.

XVII. ENFORCEMENT/WORK TAKEOVER

55. Any willful violation, or failure or refusal to comply with any provision of this Order may subject Respondent to civil penalties of up to \$37,500 per violation per day, as provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1), and the Civil Monetary Penalty Inflation Adjustment Rule, 69 Fed. Reg. 7121, 40 C.F.R. Part 19.4. EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. In the event EPA takes over performance of the Work pursuant to this provision, EPA shall have the right to immediately access any and all performance guarantee mechanisms provided pursuant to Section XXI (Performance Guarantee) of this Order. Respondent may also be subject to punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure to comply, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

XVIII. RESERVATIONS OF RIGHTS BY EPA

56. Nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or the Site and not paid by Respondent.

XIX. OTHER CLAIMS

57. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The

United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

58. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

59. Nothing in this Order shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

60. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XX. INSURANCE

61. At least 7 days prior to commencing any Work on-site under this Order, Respondent shall secure, and shall maintain for the duration of this Order, commercial general liability insurance with limits of \$1,000,000 million dollars, for any one occurrence, and automobile insurance with limits of \$1,000,000 million dollars, combined single limit, naming EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Order. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificate and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Order. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXI. PERFORMANCE GUARANTEE

62. In order to ensure the full and final completion of the Work, Respondent shall establish and maintain a performance guarantee, initially in the amount of \$1,000,000 (hereinafter "Estimated Cost of the Work"), for the benefit of EPA. The performance guarantee, which must be satisfactory in form and substance to EPA and written in substantial compliance with the wording specified in 40 C.F.R. Part 264.151, shall be in the form of one or more of the following mechanisms (provided that, if Respondent intends to use multiple mechanisms, such

multiple mechanisms shall be limited to surety bonds, letters of credit, trust funds, and insurance policies):

a. A surety bond unconditionally guaranteeing payment for the Work that is issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury;

b. An irrevocable letter of credit, payable to or at the direction of EPA, that is issued by an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency;

c. A trust fund established for the benefit of EPA that is administered by a trustee which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency;

d. A demonstration by Respondent that Respondent meets the financial test criteria of 40 C.F.R. § 264.143(f) with respect to the Estimated Cost of the Work (plus the amount(s) of any other federal or state environmental obligations financially assured through the use of a financial test or guarantee), provided that all other requirements of 40 C.F.R. § 264.143(f) are satisfied; or

e. A written guarantee to fund or perform the Work executed in favor of EPA by one or more of the following: (1) a direct or indirect parent company of Respondent, or (2) a company that has a "substantial business relationship" (as defined in 40 C.F.R. § 264.141(h)) with Respondent; provided however, that any company providing such a guarantee must demonstrate to the satisfaction of EPA that it satisfies the financial test and reporting requirements for owners and operators set forth in subparagraphs (1) through (8) of 40 C.F.R. § 264.143(f) with respect to the Estimated Cost of the Work (plus the amount(s) of any other federal or state environmental obligations financially assured through the use of a financial test or guarantee) that it proposes to guarantee hereunder.

63. Within ninety (90) days after the Effective Date, Respondent shall submit all executed and/or otherwise finalized instruments or other documents required, in a form substantially identical to the documents attached hereto as Appendix D, to:

Daniela Golden
Financial Assurance Specialist
Mail Code: 8ENF-RC
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

64. If Respondent provides a performance guarantee for completion of the Work by means of a demonstration or guarantee pursuant to Paragraph 62.d or 62.e, Respondent shall also

comply with the other relevant requirements of 40 C.F.R. § 264.143(f), relating to these mechanisms unless otherwise provided in this Order, including but not limited to: (a) the initial submission of required financial reports and statements from the relevant entity's chief financial officer and independent certified public accountant. If other federal or state environmental obligations are financially assured through the same demonstration or guarantee, Respondent shall also include as part of the initial submission documentation regarding any such demonstrations or guarantees; (b) the annual re-submission of such reports and statements within 90 days after the close of each such entity's fiscal year; and (c) the prompt notification of EPA after each such entity determines that it no longer satisfies the financial test requirements set forth at 40 C.F.R. § 264.143(f)(1) and in any event within 90 days after the close of any fiscal year in which such entity no longer satisfies such financial test requirements. For purposes of the performance guarantee mechanisms specified in this Section, references in 40 C.F.R. Part 264, Subpart H, to "closure," "post-closure," and "plugging and abandonment" shall be deemed to include the Work; the terms "current closure cost estimate," "current post-closure cost estimate," and "current plugging and abandonment cost estimate" shall be deemed to include the Estimated Cost of the Work; the terms "owner" and "operator" shall be deemed to refer to Respondent in obtaining a guarantee or making a demonstration under Paragraph 62.d or 62.e; and the terms "facility" and "hazardous waste facility" shall be deemed to include the Railroad Corridor.

65. Respondent shall diligently monitor the adequacy of the performance guarantee. In the event that EPA determines or Respondent becomes aware of information indicating that a performance guarantee provided pursuant to this Section is inadequate or otherwise no longer satisfies the requirements set forth in this Section, whether due to an increase in the estimated cost of completing the Work or for any other reason, Respondent shall promptly notify EPA of the inadequacy and, within 30 days after providing to or receiving such notice from EPA, obtain and present to EPA for approval a proposal for a revised or alternative form of performance guarantee that satisfies all requirements set forth in this Section.

66. EPA's takeover of the performance of the Work pursuant to Paragraph 55 shall trigger EPA's right to receive the benefit of any performance guarantee(s) provided pursuant to Paragraph 62, and at such time EPA shall have immediate access to resources guaranteed under any such performance guarantee(s), whether in cash or in kind, as needed to continue and complete the Work assumed by EPA. EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA for recovery of any costs incurred as a result of takeover of the Work that are not paid for or reimbursed by the performance guarantee. In addition, if at any time EPA is notified by the issuer of a performance guarantee that such issuer intends to cancel the performance guarantee mechanism it has issued, then, unless the Respondent provides a substitute performance guarantee mechanism in accordance with this Section no later than 30 days prior to the impending cancellation date, EPA shall be entitled (as of and after the date that is 30 days prior to the impending cancellation) to draw fully on the funds guaranteed under the then-existing performance guarantee.

67. Respondent shall not reduce the amount of, or change the form or terms of, the performance guarantee until Respondent receives written approval from EPA to do so.

Respondent may petition EPA in writing to request such reductions or changes on any anniversary of the Effective Date, or at any other time agreed to by the Parties. Any such petition shall include the estimated cost of the remaining Work and the basis upon which such cost was calculated, and, for proposed changes to the form or terms of the performance guarantee, the proposed revision(s) to the form or terms of the performance guarantee. If EPA notifies Respondent that it has approved the requested reduction or change, Respondent may reduce or otherwise change the performance guarantee within 30 days of receipt of EPA's written decision and shall submit all documents evidencing such reduction or change to EPA in accordance with Paragraph 63.

68. Respondent shall not release, cancel, or discontinue any performance guarantee provided pursuant to this Section until (a) Respondent receives written notice from EPA in accordance with Paragraph 74 that the Work has been fully and finally completed in accordance with the terms of this Order, or (b) EPA otherwise notifies Respondent in writing that it may release, cancel, or discontinue the performance guarantee(s) provided pursuant to this Section.

XXII. MODIFICATION

69. The EPA RPM may make modifications to any plan or schedule or SOW in writing or by oral direction. Any oral modification will be memorialized in writing by EPA within ten (10) days, but shall have as its effective date the date of the EPA RPM's oral direction. Any other requirements of this Order may be modified in writing by signature of the appropriate delegated EPA Region 8 officials, as determined by EPA.

70. If Respondent seeks permission to deviate from any approved Work Plan or schedule or SOW, Respondent's Project Coordinator shall timely submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving approval from the EPA RPM pursuant to Paragraph 69.

71. No informal advice, guidance, suggestion, or comment by the EPA RPM or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXIII. DELAY IN PERFORMANCE

72. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondent under the terms of the following Paragraph shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

73. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to the EPA RPM within

forty-eight hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within five business days after notifying EPA by telephone, Respondent shall provide to EPA written notification fully describing the nature of the delay, the anticipated duration of the delay, any justification for the delay, all actions taken or to be taken to prevent or mitigate the delay or the effect of the delay, a schedule for implementation of any measures to be taken to mitigate the effect of the delay, and any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

XXIV. NOTICE OF COMPLETION OF WORK

74. When EPA determines that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including payment of Response Costs and Record Retention, EPA will provide written notice to Respondent. If EPA determines that any Work has not been completed in accordance with this Order, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the RI/FS Work Plan, if appropriate, in order to correct such deficiencies within thirty (30) days after receipt of the EPA notice. The modified RI/FS Work Plan shall include a schedule for correcting such deficiencies. Within fifteen (15) days after receipt of written approval of the modified Work Plan, Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified RI/FS Work Plan shall be a violation of this Order.

XXV. ADMINISTRATIVE RECORD

75. EPA has established an Administrative Record that contains the documents that form the basis for the issuance of this Order. The Administrative Record is located at EPA's Montana Office, Federal Building, 10 West 15th Street, Suite 3200, Helena, MT 59626 and is available for inspection during normal business hours. Site documents are available for inspection at EPA's Montana Office and at the EPA Denver Offices, Superfund Records Center, EPA Region 8, 1595 Wynkoop Street, Denver, Colorado 80202. To review the Administrative Record, please contact Lori Hallauer, at (406) 457-5046, to make an appointment.

76. EPA will determine the contents of the administrative record file for selection of the remedial action. Respondent shall submit to EPA documents developed during the course of the RI/FS upon which selection of the response action may be based. Upon request of EPA, Respondent shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports, and other reports. Upon request of EPA, Respondent shall additionally submit any previous studies conducted under state, local, or other federal authorities relating to selection of the response action, and all

communications between Respondent and state, local, or other federal authorities concerning selection of the response action.

XXVI. OPPORTUNITY TO CONFER

77. Within five (5) days after Respondent's receipt of this Order, Respondent may request a conference with EPA, to which EPA may invite DEQ, discuss this Order or any matter pertinent to this Order, including its applicability, the factual findings and the determinations upon which it is based, the appropriateness of any actions Respondent is ordered to take, or any other relevant and material issues or contentions that Respondent may have regarding this Order. Any such conference shall be held within five (5) days after EPA's receipt of the request unless extended by written agreement of the Parties. The purpose and scope of the conference shall be limited to issues involving implementation of the Work required by this Order.

78. Respondent may appear in person or by an attorney or other representative at the conference. Respondent may also submit written comments or statements of position on any matter pertinent to this Order no later than the time of the conference or within two (2) days following the conference, or at least two (2) days prior to the Effective Date if Respondent does not request a conference. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondent a right to seek review of this Order. No official stenographic record of the conference will be made. Requests for a conference, must be by telephone to the EPA attorney cited below, at 303 312-6912, followed by written confirmation mailed that day, to:

James Stearns (8ENF-L)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Any other submittals under this Paragraph shall be directed to Mr. Stearns.

XXVII. SEVERABILITY


79. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXVIII. EFFECTIVE DATE

80. This Order shall be effective fourteen (14) days after the Order is signed by the Regional Administrator or his/her delegatee unless a conference is requested as provided herein. If a conference is requested, this Order shall be effective on the 4th day following the day of the conference unless modified in writing by EPA.

It is so ORDERED

BY:  DATE: 11/18/11
Julie DalSoglio
Director
Montana Office
U.S. Environmental Protection Agency, Region 8

BY:  DATE: 11/30/11
David Ostrander
Director
Preparedness, Assessment, and Emergency Response Program
Office of Ecosystems Protection and Remediation
U.S. Environmental Protection Agency, Region 8

EFFECTIVE DATE: 12-14-2011

IN THE MATTER OF: BNSF Railway Company

Railroad Corridor, Operable Unit 1
ACM Smelter and Refinery Site
Docket No. CERCLA-08- 2012-0001

The undersigned hereby certifies that the original and one copy of the attached UNILATERAL ADMINISTRATIVE ORDER FOR REMEDIAL INVESTIGATION/ FEASIBILITY STUDY was hand-carried to the Regional Hearing Clerk, EPA Region 8, 1595 Wynkoop Street, Denver, Colorado, 80202, and that a true copy of the same was sent via Certified Mail, Return Receipt Requested, to:

BNSF Railway Company
Attn: David M. Smith
Manager, Environmental Remediation
825 Great Northern Blvd., Suite 105
Helena, Montana 59601

and

John P. Ashworth
Robert B. Lowry
Kell, Alterman & Runstein, L.L.P.
520 S.W. Yamhill, Suite 600
Portland, OR 97204-1329

Nov 30, 2011
Date

Judith M. McTernan
Judith M. McTernan