

**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW MEXICO**

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**UNITED NUCLEAR CORP.,** )  
**EL PASO** )  
**NATURAL GAS CO., L.L.C., AND** )  
**HOMESTAKE MINING CO. OF** )  
**CALIFORNIA** )  
 )  
Plaintiffs/Counterdefendants )  
 )  
v. )  
 )  
**UNITED STATES OF AMERICA,** )  
 )  
Defendant/Counterplaintiff. )

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Civil Action No. 15-CV-411 KG/WPL

**CONSENT DECREE**

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## I. BACKGROUND

A. United Nuclear Corporation (“United Nuclear”), El Paso Natural Gas Company, L.L.C. (“EPNG”), and Homestake Mining Company of California (“Homestake”) (collectively, the “Plaintiffs/Counterdefendants”) filed a complaint in this matter against the United States of America pursuant to Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607 (“CERCLA”) and federal common law, seeking reimbursement of Plaintiffs’/Counterdefendants’ response costs incurred and to be incurred for response actions taken in connection with the release of hazardous substances at the San Mateo CERCLA Site in the Cibola National Forest, which is managed by the U.S. Forest Service (“USFS”), in New Mexico (the “Site”).

B. The United States filed a counterclaim in this matter pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 & 9613, seeking reimbursement of response costs incurred and to be incurred for response actions taken or to be taken at or in connection with the release or threatened release of hazardous substances at the Site, and for equitable allocation of Plaintiffs’/Counterdefendants’ response costs in the event the United States were to be found liable with respect to the claims alleged in the Complaint.

C. The Site, as depicted in Appendix B to this Consent Decree, is the location of the former San Mateo Uranium Mine and includes a portion of the Lee Ranch. United Nuclear, EPNG, and Homestake all owned perfected unpatented mining claims, and mined and/or conducted assessment and exploration activities at the Site during the period between 1957 and 1988, when hazardous substances, including at least radium 228 and thorium 230, were released as a result of the mining operations performed there.

D. In the 1980s, the United States Environmental Protection Agency (“EPA”) and the New Mexico State Environmental Improvement Division began investigations at the Site. In

1994, the USFS finalized a Site Inspection report (the “Report”) that noted high levels of radionuclides from uranium wastes at the Site. The Report also concluded that radioactive materials and other contaminants were present in the groundwater at the Site and that the hazardous substances were being transported from the Site in surface runoff. The Report contained a recommendation that Site restoration activities occur and that uranium waste rock at the Site be contained. In 2010, the USFS issued a final Engineering Evaluation/Cost Analysis (“EE/CA”) report that assessed the Site hazards described in the Report and selected a removal action to address those hazards (the “Removal Action”). The Removal Action consisted of: (1) screening for contaminated materials; (2) excavating contaminated soil, rock, and mining waste; (3) consolidating the soil, rock, and mining rock in an onsite, in-ground repository; and (4) capping the repository with a vegetated soil cover.

E. In June 2011, based on the Report and EE/CA, the USFS issued a Unilateral Administrative Order (“UAO”), pursuant to CERCLA Section 106(a), 42 U.S.C. § 9606(a), which directed United Nuclear, EPNG, and Homestake – along with another entity, Western Energy Development Corp., that is not a party to this settlement or this litigation – to implement the Removal Action. EPA reviewed and concurred in the UAO prior to its issuance.

F. Pursuant to UAO, Plaintiffs/Counterdefendants are implementing the Removal Action, incurring, to date, approximately \$8 million in costs.

G. The Removal Action is not yet complete. Plaintiffs/Counterdefendants continue to be bound by the terms of the UAO and are obligated to perform in accordance with its terms.

H. The United States has incurred approximately \$425,000 in response costs from response actions in connection with the Site and overseeing the performance of the UAO, including approximately \$25,000 in costs incurred by EPA and approximately \$400,000 incurred

by the USDA and USFS. The United States anticipates incurring additional response costs in the future.

I. Plaintiffs/Counterdefendants claim that the United States is liable for and should pay an equitable share of the response costs incurred and to be incurred by Plaintiffs/Counterdefendants in connection with the Site pursuant to Sections 107(a) and 113 of CERCLA, 42 U.S.C. §§ 9607(a) and 9613, alleging that the Site is located on federal land managed by the USFS and that the United States Atomic Energy Commission (of which the Department of Energy is a successor-in-interest) purchased uranium mined at the Site.

J. The United States alleged in the Counterclaim that Plaintiffs/Counterdefendants are responsible parties pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and thus are jointly and severally liable for all response costs incurred and to be incurred at the Site.

K. The parties entering into this Consent Decree do not admit any liability arising out of the transactions or occurrences alleged in the Complaint or Counterclaim.

L. The United States and Plaintiffs/Counterdefendants agree, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith, that settlement of this matter without further litigation and without the admission or adjudication of any issue of fact or law is appropriate and will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the Parties to this Decree, it is ORDERED, ADJUDGED, AND DECREED:

## **II. JURISDICTION**

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345 and 42 U.S.C. § 9607 and 9613(b) and also has personal jurisdiction over the Parties. Solely for the purposes of this Consent Decree and the underlying Complaint and Counterclaim, the Parties waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. The Parties will not challenge entry or the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree. The Counterclaim constitutes an "initial action for the recovery of costs" within the meaning of Section 113(g)(2), 42 U.S.C. § 9613(g)(2), at the Site, and any subsequent action by the United States to recover any response costs under CERCLA Section 107, 42 U.S.C. § 9607, for the Site, not addressed by this Consent Decree, shall be a "subsequent action" for further response costs within the meaning of Section 113(g)(2).

## **III. PARTIES BOUND**

2. This Consent Decree is binding upon the Parties and upon their successors and assigns. Any change in ownership or corporate or other legal status, including, but not limited to, any transfer of assets or real or personal property, shall in no way alter the status or responsibilities of Plaintiffs/Counterdefendants under this Consent Decree.

## **IV. DEFINITIONS**

3. Unless otherwise expressly provided in this Consent Decree, terms used in this Consent Decree that 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 Consent Decree or its appendices, the following definitions shall apply:

“CERCLA” means the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9601-9675.

“Consent Decree” means this Consent Decree and all appendices attached hereto. In the event of conflict between this Consent Decree and any appendix, this Consent Decree shall control.

“Day” or “day” means a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business on the next working day.

“DOJ” means the U.S. Department of Justice and its successor departments, agencies, or instrumentalities.

“EE/CA” means the 2010 Engineering Evaluation/Cost Analysis that assessed the Site hazards described in the Report and identified the Removal Action that was required to be completed pursuant to the UAO.

“Effective Date” means the date upon which approval of this Consent Decree is recorded on the Court’s docket.

“EPA” means the U.S. Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” means the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“Interest” means 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. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

“Paragraph” means a portion of this Consent Decree identified by an Arabic numeral or an upper or lower case letter.

“Parties” means the United States, including the Settling Federal Agencies, and Plaintiffs/Counterdefendants.

“Plaintiffs/Counterdefendants” means EPNG, Homestake, and United Nuclear.

“Plaintiffs’/Counterdefendants’ Response Costs” means costs incurred for activities undertaken by Plaintiffs/Counterdefendants necessary to comply with the terms of the UAO.

“Post-Certification Operation and Maintenance” means all activities conducted by the USFS after issuance of the notice of completion of the UAO that are necessary to operate, maintain, and monitor the effectiveness of the Removal Action.

“Removal Action” means the actions Plaintiffs/Counterdefendants were ordered to take under the terms of the UAO.

“Report” means the 1994 USFS Site Inspection Report.

“Response Costs” means all costs, including but not limited to direct and indirect costs, that the United States has incurred through the Effective Date at or in connection with the Site or will incur after the Effective Date in connection with the Work and Post-Certification Operation and Maintenance, plus Interest on all such costs, pursuant to 42 U.S.C. § 9607(a).

“Section” means a portion of this Consent Decree identified by a Roman numeral.



“Settling Federal Agencies” means the United States Forest Service (“USFS”), the United States Department of Agriculture (“USDA”), and the United States Department of Energy (“DOE”).

“Site” means the San Mateo Mine Site in Cibola County, New Mexico, within the Grants Uranium Region, and is further described as the NE $\frac{1}{4}$  of Section 30, SE $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 19, and the Federal portion of the West  $\frac{1}{2}$  of the NW $\frac{1}{4}$  of Section 29, Township 13 North, Range 8 West of the New Mexico Principal Meridian, as shown on the map included in Appendix B.

“State” means the State of New Mexico.

“Statement of Work” means the statement of work for performance of the Removal Action. The Statement of Work is Appendix A to the UAO.

“UAO” means the Unilateral Administrative Order issued to Plaintiffs/Counterdefendants in June of 2011, pursuant to which Plaintiffs/Counterdefendants are performing the Removal Action at the Site.

“United States” means the United States of America and each department, agency, and instrumentality of the United States, including EPA, the DOE, the USDA, and the USFS.

“USDA” means the United States Department of Agriculture and its successor departments, agencies, or instrumentalities.

“USFS” means the United States Forest Service and its successor departments, agencies, or instrumentalities.

“Waste Material” shall mean (1) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33)

of CERCLA, 42 U.S.C. § 9601(33); and (3) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

“Work” means (a) all activities and obligations undertaken by Plaintiffs/Counterdefendants on or before the Effective Date to implement the requirements of the UAO and after the Effective Date to implement those requirements of the UAO identified in the Statement of Work and (b) all activities and obligations Plaintiffs/Counterdefendants are required to perform in order to implement this Consent Decree, except the activities required under Section XIII (Retention of Records).

#### **V. STATEMENT OF PURPOSE**

4. The objectives of the Parties in entering into this Consent Decree are to resolve the claims of the United States for Response Costs and the Work, and to resolve the claims of Plaintiffs/Counterdefendants for Plaintiffs’/Counterdefendants’ Response Costs that have been or could have been asserted against the United States, as provided in this Consent Decree.

#### **VI. PAYMENT OF RESPONSE COSTS**

5. Payment by Plaintiffs/Counterdefendants for Response Costs. Within 30 days after the Effective Date, Plaintiffs/Counterdefendants shall pay to EPA \$25,000, plus an additional sum for Interest on that amount calculated from the date of lodging of the Consent Decree through the date of payment.

6. Plaintiffs/Counterdefendants shall make payments by Fedwire Electronic Funds Transfer EFT to the U.S. Department of Justice account, in accordance with instructions provided to Plaintiffs/Counterdefendants by the Financial Litigation Unit (FLU) of the U.S. Attorney’s Office for the District of New Mexico after the Effective Date. The payment instructions provided by the FLU will include a Consolidated Debt Collection System (CDCS)

number, which shall be used to identify all payments required to be made in accordance with this Consent Decree. The FLU will provide the payment instructions to:

**For EPNG:**

Daniel J. Schnee  
Assistant General Counsel  
Kinder Morgan, Inc.  
Two North Nevada  
Colorado Springs, CO 80903  
Telephone: (719) 520-4337  
Email: Daniel\_Schnee@kindermorgan.com

**For Homestake:**

Peter Webster  
General Counsel United States  
Barrick Gold of North America, Inc.  
310 South Main Street, SLC, UT 84101  
Telephone: 801-990-3745  
Email: pwebster@barrick.com

**For United Nuclear:**

Kirk R. Macfarlane  
Executive Counsel – Property and Risk Management  
Global Operation, Environment, Health & Safety  
GE  
640 Freedom Business Center  
King of Prussia, PA 19406  
Telephone: (610) 992-7976  
Email: kirk.macfarlane@ge.com

on behalf of Plaintiffs/Counterdefendants. Plaintiffs/Counterdefendants may change the individuals to receive payment instructions on their behalf by providing written notice of such change to DOJ and EPA in accordance with Section XIV (Notices and Submissions).

7. Deposit of Payment. The total amount to be paid pursuant to Paragraph 5 shall be deposited by EPA in the EPA Hazardous Substance Superfund.

8. Notice of Payment. At the time of payment, Plaintiffs/Counterdefendants shall send notice that payment has been made (a) to EPA in accordance with Section XIV (Notices

and Submissions); (b) to DOJ in accordance with Section XIV (Notices and Submissions); and (c) to the EPA Cincinnati Finance Center by email or by regular mail at:

**Email:** cinwd\_acctsreceivable@epa.gov

**Regular mail:** EPA Cincinnati Finance Center  
26 W. Martin Luther King Drive  
Cincinnati, Ohio 45268

Such notice shall reference the CDCS Number, Site/Spill ID Number A6AN, and DJ Numbers 90-11-3-11380/1 and 90-11-6-19727.

9. Payment by Settling Federal Agencies.

a. As soon as reasonably practicable after the Effective Date, and consistent with Paragraph 9.c, the United States, on behalf of Settling Federal Agencies, shall pay to Plaintiffs/Counterdefendants, a total sum of \$1.595 million by Automated Clearinghouse (ACH) Electronic Funds Transfer in accordance with instructions provided by Plaintiffs/Counterdefendants.

b. Interest. In the event that any payment required by Paragraph 9.a is not made within 120 days after the Effective Date, the United States, on behalf of Settling Federal Agencies, shall pay Interest on the unpaid balance, with such Interest commencing on the 121<sup>st</sup> day after the Effective Date and accruing through the date of the payment.

c. The Parties to this Consent Decree recognize and acknowledge that the payment obligations of Settling Federal Agencies under this Consent Decree can only be paid from appropriated funds legally available for such purpose. Nothing in this Consent Decree shall be interpreted or construed as a commitment or requirement that any Settling Federal Agency obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law.

**VII. FAILURE TO COMPLY WITH CONSENT DECREE**

10. Interest on Late Payments. If Plaintiffs/Counterdefendants fail to make any payment required by Paragraph 5 (Payment by Plaintiffs/Counterdefendants for Response Costs) by the required due date, Interest shall continue to accrue on the unpaid balance through the date of payment.

11. Stipulated Penalty.

a. If any amounts due under Paragraph 5 (Payment by Plaintiffs/Counterdefendants for Response Costs) are not paid by the required due date, Plaintiffs/Counterdefendants shall be in violation of this Consent Decree and shall pay, as a stipulated penalty, in addition to the Interest required by Paragraph 10 (Interest on Late Payments), \$100 per violation per day that such payment is late.

b. Stipulated penalties are due and payable within 30 days after the date of the demand for payment of the penalties by EPA. All payments to EPA under this Paragraph shall be identified as “stipulated penalties” and shall be made by Fedwire 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 the CDCS Number, Site/Spill ID Number A6AN, and DJ Numbers 90-11-3-11380/1 and 90-11-6-19727.

c. At the time of payment, Plaintiffs/Counterdefendants shall send notice that payment has been made to EPA and DOJ as provided in Paragraph 8 (Notice of Payment).

d. Stipulated penalties shall accrue as provided in this Paragraph regardless of whether EPA has notified Plaintiffs/Counterdefendants of the violation or made a demand for payment, but need only be paid upon demand. All penalties shall begin to accrue on the day after payment is due or the day a violation occurs, and shall continue to accrue through the date of payment. Nothing in this Consent Decree shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

12. If EPA brings an action to enforce this Consent Decree, Plaintiffs/Counterdefendants shall reimburse the United States for all costs of such action, including but not limited to costs of attorney time.

13. Payments made under this Section shall be in addition to any other remedies or sanctions available to EPA by virtue of Plaintiffs'/Counterdefendants' failure to comply with the requirements of this Consent Decree.

14. The obligations of Plaintiffs/Counterdefendants to pay amounts owed to the United States under this Consent Decree are joint and several. In the event of the insolvency of any Plaintiff/Counterdefendant or the failure by any Plaintiff/Counterdefendant to make the payments required under this Consent Decree, the remaining Plaintiffs/Counterdefendants shall be responsible for such payments.

15. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive payment of any portion of the stipulated penalties that have accrued pursuant to this Consent Decree. Payment of stipulated penalties shall not excuse Plaintiffs/Counterdefendants from payment as required by Section VI (Payment of Response Costs) or from performance of any other requirements of this Consent Decree.

### **VIII. COVENANTS BY THE UNITED STATES**

16. Covenants for Plaintiffs/Counterdefendants by United States. Except as specifically provided in Section IX (Reservation of Rights by United States), the United States covenants not to sue or to take administrative action against Plaintiffs/Counterdefendants pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Response Costs. With respect to Response Costs, the covenant takes effect upon the Effective Date. With respect to the Work, the covenant takes effect upon the date the USFS issues the notice of completion of the UAO, in accordance with Paragraph 48 of the UAO. These covenants are conditioned upon the satisfactory performance by Plaintiffs/Counterdefendants of their obligations under this Consent Decree and the UAO. These covenants extend only to Plaintiffs/Counterdefendants and do not extend to any other person.

17. Covenant for Settling Federal Agencies by EPA. Except as specifically provided in Section IX (Reservation of Rights by United States), EPA covenants not to take administrative action against Settling Federal Agencies pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Response Costs. This covenant takes effect upon the Effective Date. This covenant is conditioned upon the satisfactory performance by Settling Federal Agencies of their obligations under this Consent Decree. This covenant extends only to Settling Federal Agencies and does not extend to any other person.

### **IX. RESERVATION OF RIGHTS BY UNITED STATES**

18. The United States reserves, and this Consent Decree is without prejudice to, all rights against Plaintiffs/Counterdefendants, and EPA and the federal natural resource trustees reserve, and this Consent Decree is without prejudice to, all rights against Settling Federal Agencies, with respect to all matters not expressly included within Section VIII (Covenants by the United States). Notwithstanding any other provision of this Consent Decree, the United

States reserves all rights against Plaintiffs/Counterdefendants, and EPA and the federal natural resource trustees reserve, and this Consent Decree is without prejudice to, all rights against Settling Federal Agencies, with respect to:

- a. liability for failure by Plaintiffs/Counterdefendants or Settling Federal Agencies to meet a requirement of this Consent Decree;
- b. liability arising from the past, present, or future disposal, release, or threat of release of Waste Material outside of the Site;
- c. liability based on the ownership of the Site by Plaintiffs/Counterdefendants or Settling Federal Agencies when such ownership commences after signature of this Consent Decree by Plaintiffs/Counterdefendants or Settling Federal Agencies;
- d. liability based on the operation of the Site by Plaintiffs/Counterdefendants when such operation commences after signature of this Consent Decree by Plaintiffs/Counterdefendants and does not arise solely from Plaintiffs'/Counterdefendants' performance of the Work and liability based on the operation of the Site by Settling Federal Agencies when such operation commences after signature of this Consent Decree by Settling Federal Agencies;
- e. liability based on Plaintiffs'/Counterdefendants' or Settling Federal Agencies' transportation, treatment, storage, or disposal, or arrangement for transportation, treatment, storage, or disposal of Waste Material at or in connection with the Site, other than as provided in the EE/CA, the UAO, or otherwise ordered by the United States, after signature of this Consent Decree by Plaintiffs/Counterdefendants or Settling Federal Agencies;



- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. criminal liability; and
- h. liability for violations of federal or state law that occur during or after implementation of the Work.

**X. COVENANTS BY PLAINTIFFS/COUNTERDEFENDANTS AND SETTLING FEDERAL AGENCIES**

19. Covenant by Plaintiffs/Counterdefendants. Plaintiffs/Counterdefendants covenant not to sue and agree not to assert any claims or causes of action against the United States with respect to the Work, past response actions regarding the Site, Response Costs, Plaintiffs'/Counterdefendants' Response Costs, and this Consent Decree, including but not limited to:

- a. any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the New Mexico Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law; or
- c. any claim pursuant to Sections 107 or 113 of CERCLA, 42 U.S.C. §§ 9607 or 9613, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law.

20. Covenant by Settling Federal Agencies. Settling Federal Agencies agree not to assert any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund through CERCLA Sections 106(b)(2), 107, 111, 112, or 113, or any other provision of

law with respect to the Work, past response actions regarding the Site, Response Costs, Plaintiffs'/Counterdefendants' Response Costs, and this Consent Decree. This covenant does not preclude demand for reimbursement from the Superfund of costs incurred by a Settling Federal Agency in the performance of its duties (other than pursuant to this Consent Decree) as lead or support agency under the National Contingency Plan.

21. Except as provided in Paragraph 23 (claims against other PRPs) and Paragraph 30 (res judicata and other defenses), the covenants in this Section shall not apply in the event the United States brings a cause of action or issues an order pursuant to any of the reservations in Section IX (Reservations of Rights by United States), other than in Paragraph 18.a (liability for failure to meet a requirement of the Consent Decree), 18.g (criminal liability), or 18.h (violations of federal/state law during or after implementation of the Work) but only to the extent that Plaintiffs'/Counterdefendants' claims arise from the same response action or response costs that the United States is seeking pursuant to the applicable reservation.

22. Nothing in this Consent Decree shall be deemed to constitute approval or 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).

23. Plaintiffs/Counterdefendants agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) and 113 of CERCLA) that they may have for response costs relating to the Site against any person who is not a party to this Consent Decree and is a potentially responsible party under CERCLA at the Site. This waiver shall not apply with respect to any defense, claim, or cause of action that a Plaintiff/Counterdefendant may have against any person if such person asserts a claim or cause of action relating to the Site against such Plaintiff/Counterdefendant.

24. Plaintiffs/Counterdefendants reserve, and this Consent Decree is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on the United States' selection of response actions, or the oversight or approval of Plaintiffs'/Counterdefendants' plans, reports, other deliverables, or activities.

#### **XI. EFFECT OF SETTLEMENT/CONTRIBUTION PROTECTION**

25. Except as provided in Paragraph 23 (claims against other PRPs), nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. Except as provided in Section X (Covenants by Plaintiffs/Counterdefendants and Settling Federal Agencies), each of the Parties expressly reserves any and all rights (including, but not limited to, under Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action that it may have with respect to any matter, transaction, or occurrence relating in any way to the "matters addressed" against any person not a Party hereto. Nothing in this Consent Decree diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue

any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

26. The Parties agree, and by entering this Consent Decree this Court finds, that this Consent Decree constitutes a judicially-approved settlement pursuant to which Plaintiffs/Counterdefendants and Settling Federal Agencies have, as of the Effective Date, resolved their liability within the meaning of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Section 113(f)(2) of CERCLA, or as may be otherwise provided by law, for the matters addressed in this Consent Decree.

27. For purposes of this Consent Decree, “matters addressed” means the Work, Response Costs, and Plaintiffs’/Counterdefendants’ Response Costs; provided, however, that if the United States exercises rights under the reservations in Section IX (Reservations of Rights by United States), other than in Paragraph 18.a (liability for failure to meet a requirement of the Consent Decree) or 18.g (criminal liability), or 18.h (violations of federal/state law during or after implementation of the Work), the “matters addressed” in this Consent Decree will no longer include those response costs or response actions that are within the scope of the exercised reservation.

28. The Parties further agree, and by entering this Consent Decree this Court finds, that the complaint filed by the Plaintiffs/Counterdefendants, and the counterclaim filed by the United States, in this action are civil actions within the meaning of Section 113(f)(1) of CERCLA, 42 U.S.C. § 9613(f)(1), and that this Consent Decree constitutes a judicially-approved settlement pursuant to which each Plaintiff/Counterdefendant and each Settling Federal Agency

has, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

29. Each Plaintiff/Counterdefendant shall, with respect to any suit or claim brought by it for matters related to this Consent Decree, notify the United States in writing no later than 60 days prior to the initiation of such suit or claim. Each Plaintiff/Counterdefendant also shall, with respect to any suit or claim brought against it for matters related to this Consent Decree, notify the United States in writing within 10 days after service of the complaint or claim upon it. In addition, each Plaintiff/Counterdefendant shall notify the United States within 10 days after service or receipt of any Motion for Summary Judgment, and within 10 days after receipt of any order from a court setting a case for trial, for matters related to this Consent Decree.

30. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, recovery of response costs, or other relief relating to the Site, Plaintiffs/Counterdefendants (and, with respect to a State action, Settling Federal Agencies) shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the Covenants by the United States set forth in Section VIII.

## **XII. ACCESS TO INFORMATION**

31. Plaintiffs/Counterdefendants shall provide to the United States, 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 their possession or control or that of their contractors or agents relating to activities at the

Site 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 regarding the Site.

32. Privileged and Protected Claims.

a. Plaintiffs/Counterdefendants may assert that all or part of a Record is privileged or protected as provided under federal law, provided they comply with Paragraph 32.b, and except as provided in Paragraph 32.c.

b. If Plaintiffs/Counterdefendants assert a claim of privilege or protection, they shall provide the United States with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Plaintiffs/Counterdefendants shall provide the Record to the United States in redacted form to mask the privileged or protected information only. Plaintiffs/Counterdefendants shall retain all Records that they claim to be privileged or protected until the United States has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in the Plaintiffs'/Counterdefendants' favor.

c. Plaintiffs/Counterdefendants may make no claim of privilege or protection regarding:

(1) any data regarding the Site, including but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical,

radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or

(2) the portion of any Record that Plaintiffs/Counterdefendants are required to create or generate pursuant to this Consent Decree.

33. Business Confidential Claims. Plaintiffs/Counterdefendants may assert that all or part of a Record submitted to the United States under this Section or Section XIII (Retention of Records) is business confidential 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). Plaintiffs/Counterdefendants shall segregate and clearly identify all Records or parts thereof submitted under this Consent Decree for which Plaintiffs/Counterdefendants assert a business confidentiality claim. Records submitted to the United States determined to be confidential by the United States will be accorded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to the United States, or if the United States has notified Plaintiffs/Counterdefendants 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 Plaintiffs/Counterdefendants.

34. Notwithstanding any provision of this Consent Decree, the United States retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

### **XIII. RETENTION OF RECORDS**

35. Until five (5) years after the issuance of the notice of completion of the UAO, each Plaintiff/Counterdefendant shall preserve and retain all non-identical copies of Records now in its possession or control, or that come into its possession or control, that relate in any manner

to its liability under CERCLA with respect to the Site, provided, however, that Plaintiffs/Counterdefendants who are potentially liable as owners or operators of the Site must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

36. After the conclusion of the document retention period in the preceding paragraph, Plaintiffs/Counterdefendants shall notify the United States at least 90 days prior to the destruction of any such Records, and, upon request by the United States, except as provided in Paragraph 32 (Privileged and Protected Claims), Plaintiffs/Counterdefendants shall deliver any such Records to EPA.

37. Each Plaintiff/Counterdefendant certifies individually 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 relating to its potential liability regarding the Site since notification of potential liability by the United States or the State and that it has fully complied with any and all the United States and State requests for information regarding the Site pursuant to Sections 104(e) and 122(e)(3)(B) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e)(3)(B), Section 3007 of RCRA, 42 U.S.C. § 6927, and state law.

38. The United States acknowledges that each Settling Federal Agency (a) is subject to all applicable Federal record retention laws, regulations, and policies; and (b) has certified that it has fully complied with any and all the United States and State requests for information regarding the Site pursuant to Sections 104(e) and 122(e)(3)(B) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e)(3)(B), Section 3007 of RCRA, 42 U.S.C. § 6927, and state law.



#### **XIV. NOTICES AND SUBMISSIONS**

39. Whenever, under the terms of this Consent Decree, notice is required to be given or a document is required to be sent by one party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. Except as otherwise provided, notice to a Party by email (if that option is provided below) or by regular mail in accordance with this Section satisfies any notice requirement of the Consent Decree regarding such Party.

**As to the United States:**

**As to DOJ by email:**

eescasemanagement.enrd@usdoj.gov

**As to DOJ by mail:**

EES Case Management Unit  
U.S. Department of Justice  
Environment and Natural Resources Division  
P.O. Box 7611  
Washington, D.C. 20044-7611  
Re: DJ #90-11-3-11380/1

**And:**

Chief  
U.S. Department of Justice  
Environment and Natural Resources Division  
Environmental Defense Section  
P.O. Box 7611  
Washington, D.C. 20044-7611  
Re: DJ #90-11-6-19727

**As to EPA:**

Pamela Travis  
Assistant Regional Counsel  
U.S. Environmental Protection Agency, Region VI  
1445 Ross Avenue, Suite 1200 6RC-S  
Dallas, TX 75202  
travis.pamela@epa.gov

**As to the USDA/USFS:**

Kenneth Paur  
Acting Regional Attorney  
USDA Office of the General Counsel  
740 Simms. St. #309  
Golden, CO 80401  
kenneth.paur@usda.gov

**As to the DOE:**

Bettina Mumme  
U.S. Department of Energy  
Office of the General Counsel  
Litigation Division  
FORS, Room 6H-065  
1000 Independence Ave, SW  
Washington, DC 20585  
bettina.mumme@hq.doe.gov

**As to Plaintiffs/Counterdefendants:**

**As to EPNG:**

Daniel J. Schnee  
Assistant General Counsel  
Kinder Morgan, Inc.  
Two North Nevada  
Colorado Springs, CO 80903  
Telephone: (719) 520-4337  
Email: Daniel\_Schnee@kindermorgan.com

**As to Homestake:**

Peter Webster  
General Counsel United States  
Barrick Gold of North America, Inc.  
310 South Main Street, SLC, UT 84101  
Telephone: 801-990-3745  
Email: pwebster@barrick.com

**As to United Nuclear:**

Kirk R. Macfarlane  
Executive Counsel – Property and Risk Management  
Global Operation, Environment, Health & Safety  
GE  
640 Freedom Business Center

King of Prussia, PA 19406  
Telephone: (610) 992-7976  
Email: kirk.macfarlane@ge.com

**XV. RETENTION OF JURISDICTION**

40. This Court shall retain jurisdiction over this matter for the purpose of interpreting and enforcing the terms of this Consent Decree.

**XVI. INTEGRATION/APPENDICES**

41. This Consent Decree and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree. The following appendices are attached to and incorporated into this Consent Decree: “Appendix A” is a map of the Site and “Appendix B” is the UAO, including its appendices.

**XVII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT**

42. This Consent Decree shall be lodged with the Court for a period of at least 30 days for public notice and comment. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations that indicate that this Consent Decree is inappropriate, improper, or inadequate. Plaintiffs/Counterdefendants consent to the entry of this Consent Decree without further notice.

43. If for any reason this Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

**XVIII. SIGNATORIES/SERVICE**

44. Each undersigned representative of a Plaintiff/Counterdefendant and the Assistant Attorney General, U.S. Department of Justice, Environment and Natural Resources Division, or his/her designee certifies that he or she is authorized to enter into the terms and conditions of this Consent Decree and to execute and bind legally such Party to this document.

45. Each Plaintiff/Counterdefendant agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree, unless the United States has notified Plaintiffs/Counterdefendants in writing that it no longer supports entry of the Consent Decree.

46. Each Plaintiff/Counterdefendant shall identify, on the attached signature page, the name and address of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to all matters arising under or relating to this Consent Decree. Plaintiffs/Counterdefendants agree to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including but not limited to, service of a summons.

**XIX. FINAL JUDGMENT**

47. Upon entry of this Consent Decree by the Court, this Consent Decree shall constitute the final judgment between and among the United States and Plaintiffs/Counterdefendants.

SO ORDERED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
United States District Judge

Signature Page for Consent Decree Regarding San Mateo Mine Site

FOR THE UNITED STATES OF AMERICA:

Dated: 9/24/17



JONATHAN BRIGHTBILL  
Deputy Assistant Attorney General  
Environment and Natural Resources Division

Dated: 9/22/17



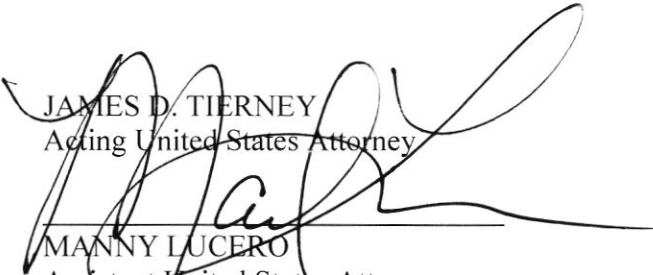
EMILY C. POWERS  
ASIA MCNEIL-WOMACK  
Trial Attorneys  
Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, D.C. 20044-7611  
Phone: (202) 616-3168  
Fax: (202) 616-6584  
Email: emily.powers@usdoj.gov

Dated: 9/22/17



ERICA ZILIOLO  
SIMI BHAT  
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Environmental Defense Section  
Environment and Natural Resources Division  
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Fax: (202) 514-8865  
Email: erica.zilioli@usdoj.gov

Dated: 8-22-17



JAMES D. TIERNEY  
Acting United States Attorney

MANNY LUCERO  
Assistant United States Attorney  
District of New Mexico  
P.O. Box 607  
Albuquerque, NM 87103  
Phone: (505) 224-1467  
Email: manny.lucero@usdoj.gov

Signature Page for Consent Decree for EPA Regarding San Mateo Mine Site

Dated: 1 Aug. 2017



---

CARL EDLUND, P.E.  
Director  
Superfund Division  
U.S. Environmental Protection Agency Region VI  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202

Dated: 25 July 2017

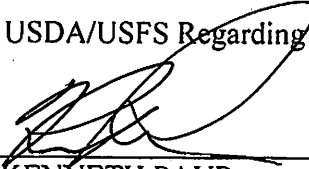


---

PAMELA TRAVIS  
Assistant Regional Counsel  
U.S. Environmental Protection Agency, EPA  
Region VI  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202

Signature Page for Consent Decree for USDA/USFS Regarding San Mateo Mine Site

Dated: 8/10/2017

  
\_\_\_\_\_  
KENNETH PAUR  
Acting Regional Attorney  
USDA Office of the General Counsel  
740 Simms. St. #309  
Golden, CO 80401



Signature Page for Consent Decree for EPNG Regarding San Mateo Mine Site

FOR EPNG:

Dated: 8-4-17

*[Signature]*  
Name President  
Title  
2 North Nevada Ave # 968  
Address  
Colorado Springs, CO 80903  
Address  
719-667-7528  
Phone

APPROVED  
AS TO FORM  
[Signature]  
DATE 8/21/2017

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Daniel Schnee  
Title: Assistant General Counsel  
Address: 2 North Nevada #954  
Colorado Springs, CO 80903

Signature Page for Consent Decree for Homestake Regarding San Mateo Mine Site

**FOR HOMESTAKE:**

Dated: Aug 8, 2017



Name \_\_\_\_\_

DIRECTOR

Title \_\_\_\_\_

310 SOUTH MAIN ST.

Address \_\_\_\_\_

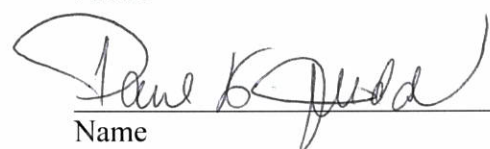
SALT LAKE CITY, UT 84101

Address \_\_\_\_\_

801-990-3901

Phone \_\_\_\_\_

Dated: Aug 8, 2017



Name \_\_\_\_\_

TAX DIRECTOR

Title \_\_\_\_\_

310 SOUTH MAIN ST.

Address \_\_\_\_\_

SALT LAKE CITY, UT 84101

Address \_\_\_\_\_

801-990-3901

Phone \_\_\_\_\_

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: HAL J. POS

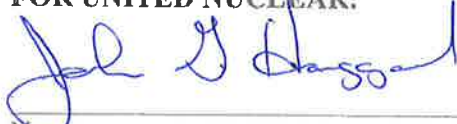
Title: ATTORNEY

Address: PARSONS BEHNKE & LATIMER  
201 SOUTH MAIN ST.  
SUITE 1800  
SALT LAKE CITY, UT 84101

Signature Page for Consent Decree for United Nuclear Regarding San Mateo Mine Site

Dated: 8/30/2017

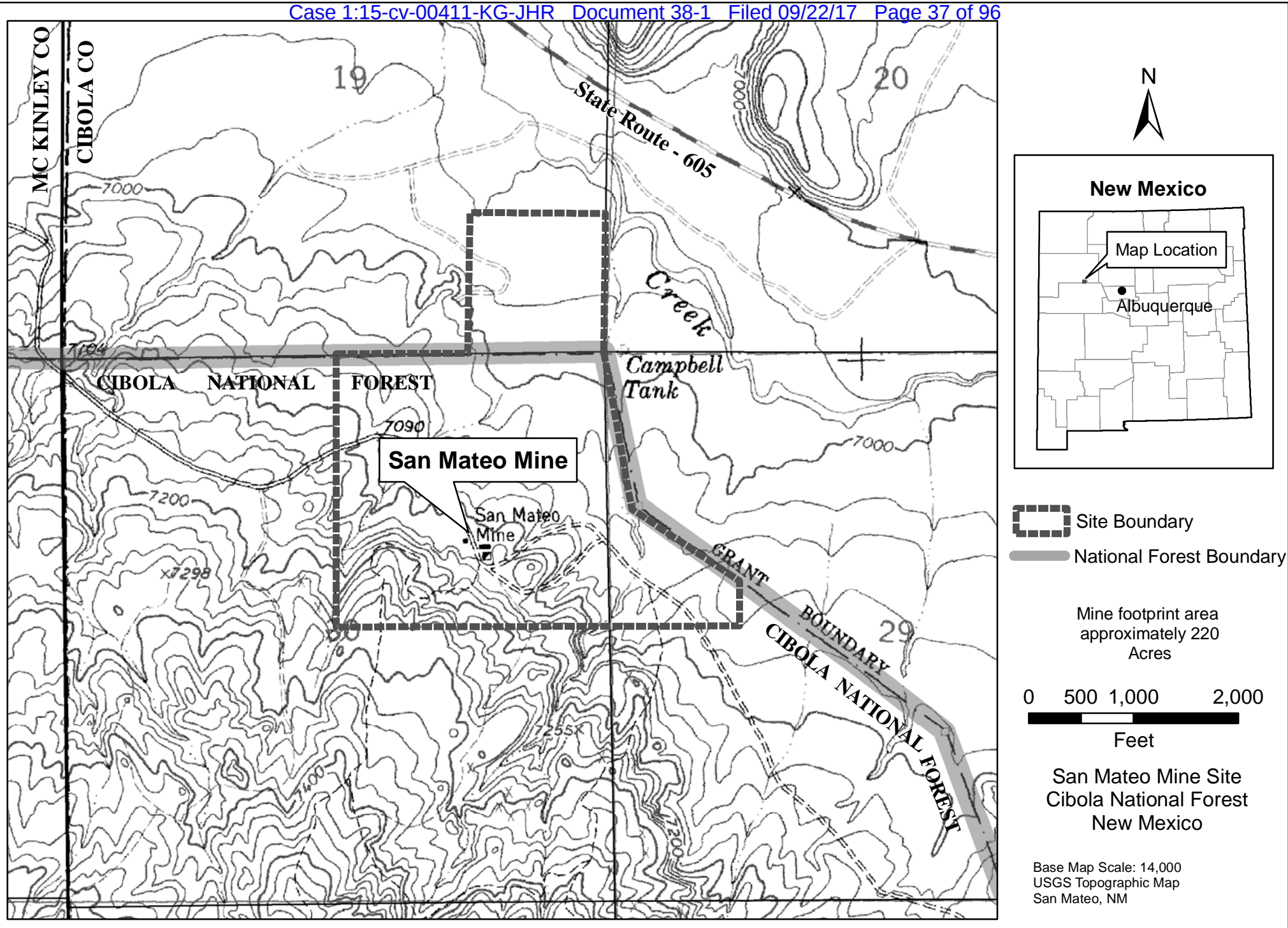
**FOR UNITED NUCLEAR:**

  
Name: \_\_\_\_\_  
Leader, Global Remediation  
Title: \_\_\_\_\_  
33-41 Farnsworth Street  
Address: \_\_\_\_\_  
Boston, MA 02210  
Address: \_\_\_\_\_  
(508) 527-6293  
Phone: \_\_\_\_\_

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Kirk R. Macfarlane  
Title: Executive Counsel  
Address: Global Operation EHS  
General Electric Company  
640 Freedom Business Center  
King of Prussia, PA 19406

# Appendix A



# Appendix B

UNITED STATES DEPARTMENT OF AGRICULTURE  
UNITED STATES FOREST SERVICE  
REGION THREE

In the Matter of  
IN THE MATTER OF

SAN MATEO MINE SITE,  
Cibola County, New Mexico

UNITED NUCLEAR CORPORATION,  
EL PASO NATURAL GAS COMPANY,  
HOMESTAKE MINING COMPANY OF  
CALIFORNIA, and WESTERN ENERGY  
DEVELOPMENT CORPORATION

Respondents

UNILATERAL ADMINISTRATIVE  
ORDER FOR REMOVAL ACTION

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

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**UNILATERAL ADMINISTRATIVE ORDER  
FOR REMOVAL ACTION**

**I. JURISDICTION AND GENERAL PROVISIONS**

1. This Unilateral Administrative Order (“UAO” or “Order”) is issued pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a), and delegated to the Secretary of Agriculture by Executive Order 12580, as amended by Executive Order 13016, 61 Fed. Reg. 45871 (August 30, 1996). This authority was further delegated to the Director of the USDA Office of Procurement and Property Management and the Chief of the Forest Service, to be exercised with the concurrence of the General Counsel. 7 C.F.R. § 2.93(a)(17)(xiv).
2. This Order directs Respondents to implement the Removal Action for the San Mateo Mine Site (“the Removal Action”), described in the Statement of Work (“SOW”) attached as Appendix A. This Order is issued to Respondents United Nuclear Corporation (“UNC”), El Paso Natural Gas Co. (“El Paso”), Homestake Mining Co. of California (“Homestake”), and Western Energy Development Corp. (“WEDC”), collectively (“Respondents”).

**II. PARTIES BOUND**

3. This Order shall apply to and be binding upon Respondents, their directors, officers, employees, representatives, agents, successors, receivers, trustees, and assigns. Respondents are responsible for carrying out all activities required by this Order. No

change in the ownership, corporate status, or other control of Respondents shall alter Respondents' responsibilities under this Order.

4. Respondents shall provide a copy of this Order to any prospective owners or successors before a controlling interest in any of Respondents' assets, property rights, or stock are transferred to the prospective owner or successor. Respondents shall provide a copy of this Order to each contractor, sub-contractor, laboratory, or consultant retained to perform any Work under this Order, within five (5) days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondents shall also provide a copy of this Order to each person representing Respondents with respect to the Site or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to Respondents within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that its contractors, subcontractors and agents comply with this Order, and perform any Work in accordance with this Order.
5. Respondents are jointly and severally liable for implementing all activities required by this Order. Compliance or noncompliance by one Respondent with any provision of this Order shall not excuse or justify noncompliance by any other Respondent. No Respondent shall interfere in any way with the performance of Work in accordance with this Order by any other Respondent. In the event of the insolvency or other failure of any

one Respondent to implement the requirements of this order, the remaining Respondents shall complete all such requirements.

### **III. DEFINITIONS**

6. 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 the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the appendices or documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:
- a. "Action Memorandum" or "Action Memo" shall mean the Forest Service's Removal Action Approval Memorandum signed on April 18, 2011, by the Regional Forester, Southwestern Region, and all attachments thereto.
  - b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*
  - c. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the end of the next working day.
  - d. "El Paso" shall mean the El Paso Natural Gas Co., a Delaware corporation.
  - e. "EPA" shall mean the United States Environmental Protection Agency.
  - f. "Forest Service" shall mean the United States Department of Agriculture, Forest Service, and any successor departments or agencies of the United States.

- g. "Homestake" shall mean the Homestake Mining Co. of California, a California corporation.
- h. "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, including any amendments thereto.
- i. "O&M" shall mean the operation, monitoring and maintenance activities required under this Order and approved by the Forest Service.
- j. "On-Scene Coordinator" shall mean the Forest Service's On-Scene Coordinator for Work at the Site.
- k. "Order" shall mean this Unilateral Administrative Order and all attached appendices and documents. In the event of a conflict between this Order and any appendix this Order shall control.
- l. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.
- m. "Project Manager" shall mean Respondents' Project Manager for the Work at the Site.
- n. "Removal Action" shall mean those activities to be undertaken by Respondents as specified in more detail in the SOW or this Order.
- o. "Respondents" shall mean United Nuclear Corporation, El Paso Natural Gas Co., Homestake Mining Co. of California, and Western Energy Development Corp.
- p. "Response Costs" shall mean all costs, including direct costs, indirect costs, and accrued interest incurred by the United States to perform or support response actions at the Site. Response costs include but are not limited to the costs of overseeing the Work,

such as the costs of reviewing or developing plans, reports and other items pursuant to this Order and costs associated with verifying the Work.

q. "Statement of Work" or "SOW" shall mean the statement of work for performance of the Removal Action at the Site, as set forth in Appendix A to this Order. The SOW is incorporated into this Order and is an enforceable part of this Order.

r. "Section" shall mean a portion of this Order identified by a Roman numeral and includes one or more paragraphs.

s. "Site" shall mean the San Mateo Mine Site located on the Cibola National Forest. The Site is located in Cibola County about 15 miles northeast of Grants, New Mexico. The Site is located approximately 5.5 miles west of the town of San Mateo. The legal description is the Northeast (NE) 1/4, Section 30, Southeast (SE) 1/4 of the Southeast (SE) 1/4 of Section 19, and the Federal portion of the West (W) 1/2 of the Northwest (NW) 1/4 of Section 29, Township 13 North, Range 8 West, of the New Mexico Principle Meridian. The Site includes lands under the jurisdiction, custody, and control of the Forest Service. A map showing the general location of the Site is included in the SOW attached as Appendix A.

t. "UNC" shall mean Respondent United Nuclear Corp., a Delaware corporation.

u. "United States" shall mean the United States of America.

v. "USDA" shall mean the United States Department of Agriculture and any successor departments or agencies of the United States.

w. "WEDC" shall mean the Western Energy Development Corp., a Nevada corporation.

- x. "Work" shall mean all activities Respondents are required to perform under this Order.

#### **IV. FINDINGS OF FACT**

7. The unpatented mining claims at the San Mateo Mine Site ("the Site") were owned and operated by Rare Metals Corp., (a predecessor company to El Paso) from 1955 to 1962. Rare Metals Corporation began mine development at the San Mateo Mine with the construction of the mine shaft, beginning in 1957. The fourteen hundred foot deep shaft onsite was completed in 1959, and the first ore was shipped offsite for processing that same year. Rare Metals Corporation merged into El Paso in 1962.
8. Uranium ore was mined onsite from a deposit in the Brushy Basin Sandstone approximately a thousand feet below the surface. When mining operations were underway, the Site included typical work buildings, a deep shaft, a mine waste dump, and settling ponds. The shaft included a pump to dewater the workings. When ore was brought to the surface, it was unloaded and measured into trucks, which transported the ore to a uranium processing mill located offsite. Waste rock was disposed of onsite in a series of terraces called the Main Waste Rock Pile. The North Pad, consisting of material similar to the Main Waste Rock Pile, was constructed on a flat area northeast of the Main Waste Rock Pile.
9. From 1962 until 1964, El Paso and El Paso Energy, another company which later merged into El Paso, mined the Site.
10. In 1964, UNC bought the unpatented mining claims at the Site from El Paso. UNC mined the Site from 1964 to 1971. The San Mateo Mine produced almost 900,000 tons

of ore over its operating lifetime. Between 1971 and 1981, UNC conducted minor exploration work and claim assessment work onsite.

11. In 1981, UNC sold the unpatented mining claims onsite to Homestake. In 1984, Homestake notified the Forest Service of its intent to abandon all claims and cease all operations, but it continued to perform assessment work and maintained the claims onsite through the 1988 assessment year.
12. In 2004, WEDC acquired a number of mining claims in the area of the Site, including some claims onsite, and it currently holds those claims.
13. At present, all buildings and surface facilities have been removed and only small remnants of the former surface structures remain. The main shaft and any emergency or air shafts associated with the mine have been sealed.
14. The Main Waste Rock Pile, North Pad, Sheet Wash Area and several settling ponds remain at the Site. The Main Waste Rock Pile contains approximately 160,000 cubic yards of uncovered and uncontrolled mine waste. The North Pad contains approximately 13,000 cubic yards of contaminated material. The Sheet Wash Area contains approximately 7,000 cubic yards of contaminated material. Surface soil and drainages surrounding the mining disturbance are contaminated by wind-borne dust and sediment transported by runoff.
15. The mine waste onsite contains radium 226 & 228, thorium 228, 230 & 232, uranium 234, 235 and 238., and these contaminants are being released from the Site. The primary exposure pathway at the Site is direct exposure to waste rock, pad material, and surface soils and sediments contaminated with radionuclides. Previous investigations and the EE/CA, September, 2010, determined that the risk to humans has increased due to past

uranium mining activities. Unrestricted land use exposes humans to radionuclides in the uncovered and unlined Main Waste Rock Pile and North Pad areas, and in and around the settling ponds by ingestion, inhalation, and dermal contact. There are elevated levels of radionuclides far above cleanup standards in several distinct areas of the Site, including samples from drainage pathways, waste rock, the settling pond, and the North Pad.

Surface drainage through the uncovered and uncontrolled Main Waste Rock Pile and the North Pad which contain uranium, thorium, and radium, carry contaminated soil to San Mateo Creek. The exposed surface of the Main Waste Rock Pile and the North Pad areas are also vulnerable to wind erosion, which causes additional off site migration of radionuclide contaminants in windborne dust emissions from the Site.

16. On April 18, 2011, the Regional Forester for the Southwestern Region approved a Removal Action Approval Memorandum selecting the Removal Action for the Site. The Removal Action provides a comprehensive cleanup of surface contamination onsite. As set forth more particularly in the SOW, construction activities associated with the Removal Action include excavation and consolidation of waste rock onto the Main Waste Rock Pile footprint, and capping with an Evapotranspiration (ET) Cover. The evapotranspiration cover will be engineered, designed, and constructed to provide superior protection for a long period of time. The ET cover stores and releases infiltrated precipitation such that there is no net flux of water through the soil layer. Other construction activities include re-vegetation of approximately 35 acres within areas in and around the Main Waste Rock Pile; installation of diversion channels up-gradient of the consolidation cell to control surface water; runoff protection on the ET cover; and installation of a 8-foot high chain link fence to enclose approximately 17 acres. The



Removal Action will minimize or eliminate the release of waste material contaminated with radionuclides from the Site into the San Mateo Creek watershed or onto nearby private land via the surface water pathway. The Removal Action will reduce potential risk of exposure to gamma radiation and direct contact, inhalation, or ingestion of radionuclides by either people or wildlife.

17. Pursuant to CERCLA and Executive Order 12580, the Forest Service is the lead agency for response actions at the Site.
18. The Forest Service has incurred, and continues to incur, response costs associated with the Site.

## **V. CONCLUSIONS OF LAW AND DETERMINATIONS**

19. The San Mateo Mine Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
20. Respondents are "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
21. Respondents are "liable parties" as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
22. Radium 226 & 228, thorium 228, 230 & 232, uranium 234, 235 & 238, are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
23. These hazardous substances are being released from the Site.
24. The disposal and migration of hazardous substances from the Site are a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

25. The release of hazardous substances from the facility presents an imminent and substantial endangerment to the public health or welfare or the environment.
26. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment.

## **VI. ORDER**

27. This Order is issued to:

- a. Respondent El Paso Natural Gas Company directly, and through predecessor companies, owned and operated the Site as a mine from approximately 1955 until 1964, when it sold the Site to UNC. During that time, hazardous substances, including radionuclides, were disposed of at the Site and released from the Site.
- b. Respondent United Nuclear Corporation owned and operated the Site from approximately 1964 until 1981. During that time, hazardous substances, including radionuclides, were disposed of at the Site and released from the Site.
- c. Respondent Homestake Mining Co. of California owned and operated the Site from approximately 1981 until 1989. During that time, hazardous substances, including radionuclides, were released from the Site.
- d. Respondent Western Energy Development Corporation has owned and operated the Site from approximately 2004 until the present. During that time, hazardous substances, including radionuclides, were released from the Site.

28. Based on the foregoing, Respondents are hereby ordered to comply with the provisions of this Order, including but not limited to all appendices to this Order, all documents

incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order, or incorporated by reference into this Order.

### **VII. NOTICE OF INTENT TO COMPLY**

29. Respondents shall each notify the Forest Service in writing within seven (7) working days after the Effective Date of this Order, as specified in Section XXVI, of Respondents' irrevocable intent to comply with this Order. Failure of a Respondent to provide such notification within this time period shall be a violation of this Order by that Respondent. Respondents' written notice shall describe, using facts that exist on or prior to the Effective date of this Order, any "sufficient cause" defenses asserted by Respondents under Sections 106(b) and 107(c)(3) of CERCLA. The absence of a response by the Forest Service to a notice required by this Paragraph shall not be deemed to be acceptance of Respondents' assertions.

### **VIII. FOREST SERVICE ON-SCENE COORDINATOR**

30. All communications, whether written or oral, from Respondents to the Forest Service shall be directed to the Forest Service's On-Scene Coordinator. Respondents shall submit to the Forest Service, three copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by certified mail, return receipt requested, or overnight mail.

The Forest Service's On-Scene Coordinator is:

Steven John McDonald  
New Mexico Statewide On-Scene Coordinator  
Southwestern Regional Office  
333 Broadway Blvd.  
Albuquerque, New Mexico 87102

Office Phone (505) 842-3838  
Cell Phone (505) 264-9218  
Fax (505) 842-3150  
Email: smcdonald@fs.fed.us

31. Two copies of all documents shall be sent to the On-Scene Coordinator, and one copy shall be sent to:

Maria A. McGaha, P.E.  
Regional Environmental Engineer  
Southwestern Region  
505-842-3837 (office)  
505-301-1262 (cell)  
mmcgha@fs.fed.us

32. The Forest Service has the unreviewable right to change its On-Scene Coordinator. If the Forest Service changes its On-Scene Coordinator, the Forest Service will inform Respondents in writing of the name, address, and telephone number of the new On-Scene Coordinator.
33. The Forest Service's On-Scene Coordinator shall have the authority lawfully vested in an On-Scene Coordinator (OSC) by the NCP, 40 C.F.R. Part 300. The Forest Service's On-Scene Coordinator shall have 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 constitute an emergency situation or may present an immediate threat to public health or welfare or the environment due to the release or threatened release of waste material and/or hazardous substances.

## **IX. WORK TO BE PERFORMED**

34. Respondents shall cooperate with the Forest Service in providing information regarding the Work to the public. As requested by the Forest Service, Respondents shall participate in the preparation of such information for distribution to the public and in public

meetings that may be held or sponsored by the Forest Service to explain activities at or relating to the Site.

35. All aspects of the Work to be performed by Respondents pursuant to this Order shall be under the direction and supervision of a qualified Project Manager the selection of which shall be subject to approval by the Forest Service. Within ten (10) days after the Effective Date of this Order, Respondents shall notify the Forest Service in writing of the name and qualifications of the Project Manager, including primary support entities and staff, proposed to be used in carrying out work under this Order. Respondents' Project Manager shall be responsible for overseeing Respondents' implementation of this Order. Respondents shall have the right to change its Project Manager, subject to the Forest Service's right to disapprove. If at any time Respondents propose to use a different Project Manager, Respondents shall notify the Forest Service, in writing, and shall obtain approval from the Forest Service before the new Project Manager performs any Work under this Order.
36. The Forest Service will review Respondents' selection of a Project Manager according to the terms of this Paragraph. If the Forest Service disapproves of the selection of the Project Manager, Respondents shall submit to the Forest Service within ten (10) days after receipt of the Forest Service's disapproval of the Project Manager previously selected, a list of Project Managers, including primary support entities and staff, that would be acceptable to Respondents. The Forest Service will thereafter provide written notice to Respondents of the names of the Project Managers that are acceptable to the Forest Service. Respondents may then select any approved Project Manager from that list and shall notify the Forest Service of the name of the Project Manager selected within

seven (7) days of the Forest Service's designation of approved Project Managers. The Forest Service retains the right to disapprove of Respondents' designated Project Manager at any time during Respondents' performance of work. If the Forest Service disapproves of the designated Project Manager, Respondents shall retain a different Project Manager and shall notify the Forest Service of that person's name, address, telephone number and qualifications within five (5) days following the Forest Service's disapproval. Receipt by Respondents' Project Manager of any notice or communication from the Forest Service relating to this Order shall constitute receipt by Respondents.

37. Within ninety (90) calendar days after the Effective Date of the Order, Respondents shall submit a Work Plan ("Work Plan") to the Forest Service for review and approval. The Work Plan is identified as Task 1 of the SOW. The Work Plan shall consist of the overall strategy for performing the design, construction, operation, maintenance and monitoring for the Removal Action. The Work Plan shall outline the specific tasks required to implement the Removal Action, including a description of the technical approach, personnel requirements, plans, specifications, permit requirements, submittals, and deliverables. The Work Plan shall also include a schedule, in real time, for conducting all activities associated with the Removal Action.
38. Upon written approval by the Forest Service, the Work Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.
39. Unless otherwise directed by the Forest Service, Respondents shall not commence Task 2 of the SOW prior to written approval of the Work Plan.
40. If Respondents seek to retain a construction contractor(s) to assist in the performance of the Removal Action, then Respondents shall submit a copy of the contractor solicitation

documents to the Forest Service not later than five (5) days after publishing the solicitation documents.

41. Within twenty (20) days after the Forest Service approves the Final Design, Respondents shall notify the Forest Service in writing of the name, title, and qualifications of any construction contractor(s) proposed to be used in carrying out work under this Order. If the Forest Service disapproves of the selection of the construction contractor(s), Respondents shall submit to the Forest Service within ten (10) days after receipt of the Forest Service's disapproval of the construction contractor(s) previously selected, a list of construction contractors that would be acceptable to Respondents. The Forest Service will thereafter provide written notice to Respondents of the names of the construction contractors that are acceptable to the Forest Service. Respondents may then select any approved construction contractor from that list and shall notify the Forest Service of the name of the construction contractor(s) selected within seven (7) days of the Forest Service's designation of approved construction contractors. The Forest Service retains the right to disapprove Respondents' designated construction contractor(s) at any time during Respondents' performance of work. If the Forest Service disapproves of the designated construction contractor(s), Respondents shall retain a different construction contractor(s) and shall notify the Forest Service of that person's name, address, telephone number and qualifications within five (5) days following the Forest Service's disapproval. If at any time Respondents propose to change the construction contractor(s), Respondents shall notify the Forest Service and shall obtain approval from the Forest Service as provided in this Paragraph, before the new construction contractor(s) performs any work under this Order.

42. The Work performed by Respondents pursuant to this Order shall, at a minimum, achieve the performance standards specified in the Action Memo and in the SOW.
43. Notwithstanding any action by the Forest Service, Respondents remain fully responsible for achievement of the performance standards in the Action Memo and SOW. Nothing in this Order, or in the Forest Service's approval of the SOW, Work Plan, or approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by the Forest Service that full performance of the Removal Action will achieve the performance standards set forth in the Action Memo and in the SOW. Respondents' compliance with such approved documents does not foreclose the Forest Service from seeking additional work to achieve the applicable performance standards.
44. Respondents shall, prior to any off-Site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to the Forest Service's On-Scene Coordinator of such shipment of hazardous substances.
45. The notification shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation. Respondents shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.
46. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for Removal Action construction. Respondents shall



provide all relevant information, including information under the categories noted in the above Paragraph, on the off-Site shipments as soon as practicable after the award of the contract and before the hazardous substances are actually shipped. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-Site location, Respondents shall provide the Forest Service with certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-Site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

47. Within thirty (30) days after Respondents conclude that the Removal Action has (i) been fully performed, (ii) achieved the cleanup goals and objectives set forth in the Action Memo, (iii) is operational and functional, and (iv) is functioning properly and is performing as designed, Respondents shall so notify the Forest Service and shall schedule and conduct a pre-certification inspection to be attended by Respondents and the Forest Service. The pre-certification inspection shall be followed by a written report submitted within thirty (30) days of the inspection by a registered professional engineer and Respondent's Project Manager certifying that the Removal Action has been completed in full satisfaction of the requirements of this Order. If, after completion of the pre-certification inspection and receipt and review of the written report, the Forest Service determines that the Removal Action or any portion thereof has not been completed in accordance with this Order, the Forest Service shall notify Respondents in writing of the activities that must be undertaken to complete the Removal Action and shall set forth in

the notice a schedule for performance of such activities. Respondents shall perform all activities described in the notice in accordance with the specifications and schedules established therein. If the Forest Service concludes, following the initial or any subsequent certification of completion by Respondents that the Removal Action has been fully performed in accordance with this Order, the Forest Service may notify Respondents that the Removal Action has been fully performed. The Forest Service's notification shall be based on present knowledge and Respondents' certification to the Forest Service, and shall not limit the Forest Service's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of the Forest Service is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607. Upon notification from the Forest Service that the Removal Action has been fully performed and is operational and functional, Respondents shall initiate O&M for the Removal Action. Respondents shall conduct O&M for the Removal Action for a limited period of five years from the date of the Forest Service's notification to Respondents that the Removal Action has been performed and is operational and functional.

48. Within thirty (30) days after Respondents conclude that all phases of the Work have been fully performed, that the Performance Standards have been attained, and that all O&M activities required under this Order have been completed and performed, Respondents shall submit to the Forest Service a written report by a registered professional engineer certifying that the Work has been completed in full satisfaction of the requirements of this Order. The Forest Service shall require such additional activities as may be necessary to complete the Work or the Forest Service may, based upon present

knowledge and Respondents' certification to the Forest Service, issue written notification to Respondents that the Work has been completed, as appropriate, in accordance with the procedures set forth herein for Respondents' certification of completion of the Removal Action. The Forest Service's notification shall not limit the Forest Service's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of the Forest Service is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

## **X. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS**

49. Respondents shall use the quality assurance, quality control, and chain of custody procedures described in the "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001 or most recent version) and "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-02/009, December 2002 or subsequently issued guidance), and any amendments to these documents, while conducting all sample collection and analysis activities required herein by any plan. To provide quality assurance and maintain quality control, Respondents shall:
- a. Use only laboratories that have a documented 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) and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA. The Forest Service may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) to meet the quality system requirements.

b. Ensure that the laboratory used by Respondents for analyses, performs according to a method or methods deemed satisfactory to the Forest Service and submits all protocols to be used for analyses to the Forest Service at least thirty (30) days before beginning analysis.

c. Ensure that the Forest Service personnel and the Forest Service's authorized representatives are allowed access to the laboratory and personnel utilized by Respondents for analyses.

50. Respondents shall notify the Forest Service not less than fourteen (14) days in advance of any sample collection activity. At the request of the Forest Service, Respondents shall allow split or duplicate samples to be taken by the Forest Service or its authorized representatives, of any samples collected by Respondents with regard to the Site or pursuant to the implementation of this Order. In addition, the Forest Service shall have the right to take any additional samples that the Forest Service deems necessary.

## **XI. PROGRESS REPORTS**

51. In addition to the other deliverables set forth in this Order, Respondents shall provide monthly progress reports to the Forest Service with respect to actions and activities undertaken pursuant to this Order. The monthly progress reports shall be submitted on or before the 15<sup>th</sup> day of each month following the Effective Date of this Order.

Respondents' obligation to submit monthly progress reports shall continue until the Forest Service gives Respondents written notice that the Work has been completed.

52. Monthly progress reports shall be prepared as outlined in the SOW.

## **XII. THE FOREST SERVICE REVIEW OF SUBMISSIONS**

53. After review of any deliverable, plan, report or other item which is required to be submitted for review and approval pursuant to this Order, the Forest Service may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondents to re-submit the document after incorporating the Forest Service's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by the Forest Service," "the Forest Service approval," or a similar term means the action described in paragraphs (a) or (b) of this Paragraph.
54. In the event of approval or approval with modifications by the Forest Service, Respondents shall proceed to take any action required by the plan, report, or other item, as approved or modified by the Forest Service.
55. Upon receipt of a notice of disapproval or a request for a modification, Respondents shall, within twenty-one (21) days or such longer time as specified by the Forest Service in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondents shall proceed, at the direction of the Forest Service, to take any action required by any non-deficient portion of the submission.
56. If any submission is not approved by the Forest Service, Respondents shall be deemed to be in violation of this Order.

## **XIII. ADDITIONAL RESPONSE ACTIONS AND FAILURE TO ATTAIN PERFORMANCE STANDARDS**

57. The Forest Service may determine that in addition to the Work identified in this Order and attachments to this Order, additional response activities may be necessary to protect human health and the environment. If the Forest Service determines that additional response activities are necessary, the Forest Service may require that Respondents submit a work plan for additional response activities. The Forest Service may also require that Respondents modify any plan, design, or other deliverable required by this Order, including any approved modifications.
58. Not later than thirty (30) days after receiving the Forest Service's notice that additional response activities are required pursuant to this Section, Respondents shall submit a work plan for the response activities to the Forest Service for review and approval. Upon approval by the Forest Service, the work plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order. Upon approval of the work plan by the Forest Service, Respondents shall implement the work plan according to the standards, specifications, and schedule in the approved work plan. Respondents shall notify the Forest Service of their intent to perform such additional response activities within seven (7) days after receipt of the Forest Service's request for additional response activities.
59. In the event that the Forest Service determines that additional response activities are necessary to meet applicable performance standards in the SOW, the Forest Service may notify Respondents that additional response actions are necessary.
60. Unless otherwise stated by the Forest Service, within thirty (30) days of receipt of notice from the Forest Service that additional response activities are necessary to meet any applicable performance standards, Respondents shall submit for approval by the Forest

Service a work plan for the additional response activities. The plan shall conform to the applicable requirements of Sections IX, X, and XVI of this Order. Upon the Forest Service's approval of the plan pursuant to Section XII, Respondents shall implement the plan for additional response activities in accordance with the provisions and schedule contained therein.

#### **XIV. THE FOREST SERVICE PERIODIC REVIEW**

61. Under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations, the Forest Service may review the Site to assure that the Work performed pursuant to this Order adequately protects human health and the environment. Until such time as the Forest Service certifies completion of the Work, Respondents shall conduct the requisite studies, investigations, or other response actions as determined necessary by the Forest Service in order to conduct the review under Section 121(c) of CERCLA. As a result of any review performed under this Paragraph, Respondents may be required to perform additional Work or to modify Work previously performed.

#### **XV. ENDANGERMENT AND EMERGENCY RESPONSE**

62. If any incidents, or change in Site conditions, during the actions conducted pursuant to this Order causes or threatens to cause an additional release of hazardous substances from the Site or an endangerment to the public health, welfare, or the environment, Respondents shall immediately take all appropriate action. Respondents 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 such release or endangerment caused or threatened by the release. Respondents shall also

immediately notify the Forest Service's On-Scene Coordinator or, if the On-Scene Coordinator is unavailable, Respondents shall notify the Forest Service Regional Environmental Engineer, Southwestern Region, of the incident or Site conditions. If Respondents fail to take action, then the Forest Service may respond to the release or endangerment and reserves the right to pursue cost recovery.

63. In the event of any release of a hazardous substance above a reportable quantity, Respondents shall immediately notify the Forest Service's On-Scene Coordinator and the National Response Center. Respondents shall submit a written report to the Forest Service within seven (7) days after such release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, not in lieu of, reporting under CERCLA Section 103(c) and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

64. Nothing in the preceding Paragraph shall be deemed to limit any authority of the Forest Service to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

## **XVI. COMPLIANCE WITH APPLICABLE LAWS**

65. All activities by Respondents pursuant to this Order shall be performed in accordance with the requirements of all applicable Federal, state, and local laws and regulations. The Forest Service has determined that the activities contemplated by this Order are consistent with the NCP.



66. Except as provided in Section 121(e) of CERCLA and the NCP, no permit shall be required for any portion of the Work conducted entirely on-Site. Where any portion of the Work requires a Federal, state, or local permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.
67. This Order is not, and shall not be construed to be a permit issued pursuant to any Federal, state, or local statute or regulation.
68. All materials removed from the Site shall be disposed of or treated at a facility approved by the Forest Service's On-Scene Coordinator and in accordance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), EPA's Off-Site Rule, 40 C.F.R. § 300.440, and with all other applicable Federal, state, and local requirements.
69. All draft and final work plans and reports required for submittal under this Order shall be stamped by a Registered Professional Engineer or Geologist. All draft and final work plans, reports or other items required for submittal under this Order shall include the following certification signed by a person who supervised or directed the preparation of that report:
- “Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”**

## **XVII. ACCESS TO PROPERTY NOT OWNED BY THE UNITED STATES**

70. If any property subject to or affected by the cleanup is owned, in whole or in part, by a party or parties other than the United States, Respondents will obtain, or use its best efforts to obtain, Site access agreements from the present owner(s) within thirty (30) days after the Effective Date of this Order, or as otherwise specified in writing by the On-Scene Coordinator. Such agreements shall provide access for the Forest Service, its contractors and oversight officials, the State and its contractors, and Respondents or Respondents' authorized representatives and contractors, and such agreements shall specify that Respondents are not the Forest Service's representative with respect to liability associated with Site activities. Respondents shall save and hold harmless the United States and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action or other costs incurred by the United States including but not limited to attorneys fees and other expenses of litigation and settlement arising from or on account of acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order, including any claims arising from any designation of Respondents as the Forest Service's authorized representatives under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e). Copies of such agreements shall be provided to the Forest Service prior to Respondents' initiation of field activities. Respondents' best efforts shall include providing reasonable compensation to any off-Site property owner. If access agreements are not obtained within the time referenced above, Respondents shall immediately notify the Forest Service of its failure to obtain access. Respondents shall describe in writing their effort(s) to obtain access. The Forest Service may then assist Respondents in

gaining access, to the extent necessary to effectuate the removal actions described herein, using such means as the Forest Service deems appropriate. The Forest Service reserves the right to seek reimbursement from Respondents for all costs and attorney's fees incurred by the United States in obtaining access for Respondents.

## **XVIII. RECORD PRESERVATION, RETENTION, AND AVAILABILITY**

71. Respondents shall provide to the Forest Service upon request, copies of all documents and information within their possession and/or control or that of their 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. Respondents shall also make available to the Forest Service for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.
72. Until ten (10) years after the Forest Service provides written notice to Respondents that the Work has been completed, Respondents shall preserve and retain all records and documents in its possession or control, including the documents in the possession or control of its contractors and agents, on and after the effective date of this Order that relate in any manner to the Site. At the conclusion of this document retention period, Respondents shall notify the United States at least ninety (90) calendar days prior to the destruction of any such records or documents, and upon request by the Forest Service, Respondents shall deliver any such records or documents to the Forest Service.

73. Within thirty (30) days after the Effective Date of this Order, Respondents shall submit a written certification to the Forest Service's On-Scene Coordinator that they have not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to their potential liability with regard to the Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site. Respondents shall not dispose of any such documents without prior approval by the Forest Service. Respondents shall, upon the Forest Service's request and at no cost to the Forest Service, deliver the documents or copies of the documents to the Forest Service.
74. Respondents may assert a business confidentiality claim pursuant to the procedures set forth in 40 C.F.R. § 2.203(b) with respect to part or all of any information submitted to the Forest Service pursuant to this Order, provided such claim is allowed by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). Analytical and other data specified in Section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by Respondents. The Forest Service shall only disclose information covered by a business confidentiality claim to the extent permitted by, and by means of the procedures set forth at 7 C.F.R. § 1.12. If no such claim accompanies the information when it is received by the Forest Service, it may make it available to the public without further notice to Respondents.
75. Respondents shall maintain a running log of privileged documents on a document-by-document basis, containing the date, author(s), addressee(s), subject, the privilege or grounds claimed (e.g, attorney work product, attorney-client), and the factual basis for assertion of the privilege. Respondents shall keep the "privilege log" on file and available for inspection. The Forest Service may at any time challenge claims of

privilege through negotiations or otherwise as provided by law or the Federal Rules of Civil Procedure.

### **XIX. DELAY IN PERFORMANCE**

76. Any delay in performance of this Order that, in the Forest Service's judgment, is not properly justified by Respondents under the terms of this Paragraph shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondents' obligations to fully perform all obligations under the terms and conditions of this Order.
77. Respondents shall notify the Forest Service of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to the Forest Service's On-Scene Coordinator within forty eight (48) hours after Respondents first knew or should have known that a delay might occur. Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying the Forest Service by telephone, Respondents shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondents should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

## **XX. INSURANCE**

78. At least seven (7) days prior to commencing any work at the Site pursuant to this Order, Respondents shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit. Within the same time period, Respondents shall provide the Forest Service with certificates of such insurance and a copy of each insurance policy. If the Respondents demonstrate by evidence satisfactory to the Forest Service that Respondents contractors and subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondents pursuant to this Order, covering the same risks but in a lesser amount, then the Respondents need provide only that portion of the insurance described above which is not maintained by the contractor or subcontractor.

## **XXI. UNITED STATES NOT LIABLE**

79. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or their directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither the Forest Service nor the United States may be deemed to be a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

## **XXII. ENFORCEMENT AND RESERVATIONS**

80. The Forest Service reserves the right to bring an action against Respondents 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 reimbursed by Respondents. This reservation shall include, but not be limited to, past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight cost demand, as well as accrued interest as provided in Section 107(a) of CERCLA.
81. Notwithstanding any other provision of this Order, at any time during the response action, the Forest Service may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement from Respondents for its costs, or seek any other appropriate relief.
82. Nothing in this Order shall preclude the Forest Service from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional removal or remedial actions as the Forest Service may deem necessary, or from requiring Respondents in the future to perform additional activities pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), or any other applicable law. Respondents shall be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), for the costs of any such additional actions.
83. Notwithstanding any provision of this Order, the Forest Service hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, and any other applicable statutes or regulations.
84. Violation of any provision of this Order may subject Respondents to civil penalties of not more than thirty-seven thousand five hundred dollars (\$37,500) per violation per day, as

provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1). Should Respondents violate this Order or any portion hereof, the Forest Service 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.

85. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person for any liability it may have arising out of or relating in any way to the Site.

### **XXIII. ADMINISTRATIVE RECORD**

86. The Administrative Record supporting this Removal Action is available for review at the USDA Forest Service Southwestern Regional Office, located at:  
  
333 Broadway SE  
Albuquerque, NM 87102

### **XXIV. SEVERABILITY**

87. If a court issues an order that invalidates any provision of this Order or finds that Respondents have sufficient cause not to comply with one or more provisions of this Order, Respondents 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.

### **XXV. OPPORTUNITY TO CONFER**

88. Within seven (7) working days after the date that Respondents are served, by facsimile, with a copy of this Order, Respondents may request, in writing, a conference with the



USDA. Any such conference shall be held within ten (10) working days after the date of such request, unless extended by agreement of the parties. At any conference held pursuant to the request, Respondents may appear in person or be represented by an attorney or other representative.

89. If a conference is held, Respondents may present any information, arguments or comments regarding this Order. Regardless of whether a conference is held, Respondents may submit any information, arguments or comments in writing to the Forest Service within fourteen (14) days following the conference, or within twenty-one (21) days following the effective date of this Order if no conference is requested. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondents a right to seek review of this Order. Requests for a conference, or any written submittal under this Paragraph, shall be directed to:

Michael R. Hope  
Senior Counsel  
USDA Office of the General Counsel  
740 Simms St., Suite 309  
Golden, CO 80401  
303-275-5545  
fax-303-275-5557  
[email-michael.hope@usda.gov](mailto:email-michael.hope@usda.gov)

## **XXVI. EFFECTIVE DATE**

90. This Order shall be effective ten (10) working days after the date that Respondents are served, by facsimile, with a copy of this Order, unless a conference is requested as provided herein. If a conference is requested, this Order shall be effective on the second (2<sup>nd</sup>) working day following the day of the conference, unless modified, in writing, by the Forest Service.

**IT IS SO ORDERED**

By: Mary Wagner  
*FOR* THOMAS L. TIDWELL  
Chief  
Forest Service

Date: 6.20.2011

By: Lisa M. Wilusz  
Lisa M. Wilusz  
Director  
USDA Office of Procurement  
and Property Management

Date: 6-21-11

Concurrence:

Ramona Romero  
Ramona E. Romero  
General Counsel

Date: 6-27-2011

**APPENDIX A  
STATEMENT OF WORK  
REMOVAL ACTION  
SAN MATEO URANIUM MINE**

**1.0 PURPOSE**

The purpose of this Statement of Work (SOW) is to describe the Work activities associated with the Removal Action at the San Mateo Uranium Mine (Site). These activities consist of the design, construction, monitoring, and operation and maintenance of the Removal Action. The Removal Action shall be consistent with the United States Department of Agriculture, Forest Service (Forest Service) Action Memorandum and the Unilateral Administrative Order for Removal Action (UAO or Order). The Respondents shall comply with applicable regulatory requirements pertaining to the Removal Action.

The mine features at the Site are Main Waste Rock Pile, North Pad, Sheet Wash Area, South Sand Pile, and several settling ponds. The primary source of contamination consists of the exposed nature of 180,000 cubic yards of Main Waste Rock Pile, North Pad material, South Sand Pile, and Sheet Wash Area containing radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238, the contaminants of concern. Wind and water erosion of these uncovered and uncontrolled waste materials has led to migration of contaminants into air, soil, and sediment. It has resulted in potential inhalation, ingestion, and dermal contact exposure pathways. Some of the waste materials have migrated onto adjacent private lands.

The Forest Service shall provide oversight of the Respondents activities throughout the Removal Action. The Respondents shall support the Forest Service initiatives and conduct activities related to the implementation of the Removal Action.

**2.0 REMOVAL ACTION PERFORMANCE STANDARDS AND SPECIFICATIONS**

Unless otherwise specified, the Respondents shall conduct all Work described in this SOW. Work shall be completed upon written acceptance from the Forest Service. The Respondents shall prepare the performance standards and specifications of the Removal Action as described herein. Performance standards and specifications shall include cleanup standards, standards of control, quality criteria, and other requirements, criteria or limitations as established in the Action Memorandum, this SOW and the UAO. A vicinity map is included as Figure 1. A site boundary map is included as Figure 2. A mine features map is included as Figure 3.

**2.1 Cleanup Performance Standard**

The cleanup performance standards shall be consistent with Multi-Agency Radiation Survey and Site investigation Manual (MARSSIM) and the Uranium Mill Tailings Radiation Control Act regulations at 40 CFR192.12. The concentration of radium-226 in land averaged over the first 15 cm of soil below

ground surface shall not exceed the background level by more than 5 picocuries per gram of radium-226.

## **2.2 Evapotranspiration Cover Performance Standards**

Longevity of the Cover-The cover shall have a minimum expected life of 200 years.

Water Infiltration-The cover must protect mine wastes and reduce leachate development by minimizing infiltration into the mine waste. Infiltration from the cover into the mine waste shall not exceed 3mm/year for the wettest year on record.

Erosion- The cover shall have a gravel admixture designed to minimize erosion. As a minimum, the cover system shall be designed so that the calculated sheet erosion rate does not exceed 2 tons/acre/year. Erosion effects due to both wind and water shall be taken into account. The top gravel/soil admixture depth, soil to gravel ratio, and size of gravel will be determined in the design process.

Revegetation- Revegetation shall emulate the structure, function, diversity and dynamics of native plant communities. Ground cover shall be a minimum of 80% of the natural analog at the end of the first five year maintenance period.

## **2.3 Fence Performance Standards**

The fence shall be a standard commercial grade chain link mesh designed to exclude large animals such as cattle, deer, and elk out of the repository area. The fence shall be 8 feet in height and shall totally enclose the area of the repository. The fence shall have a minimum of one commercial grade chain link gate designed to allow the entry of vehicles and equipment.

## **3.0 TASK DESCRIPTION**

The Removal Action shall consist of six (6) principal tasks described below. Tasks and deliverables shall be completed and submitted in accordance with the schedules established in the UAO and in the Work Plan approved by Forest Service. The Forest Service shall review all submittals and provide comments/input within fourteen (14) days of receipt. The current/revised date shall be displayed on the coversheet of submittals and/or re-submittals. All work related to this SOW shall be performed by the Respondents consistent with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended, 42 USC 9601, and other applicable federal and state rules and regulations.

### Task Summary

#### 3.1 Task I: Work Plan

##### 3.1.1 Site Access

##### 3.1.2 Pre-Design Studies Plan

#### 3.2 Task II: Pre Design Studies

#### 3.3 Task III: Removal Design

- 3.3.1 General Requirements for Plans and Specifications
- 3.3.2 Design Phases
- 3.3.3 Cost Estimate for Removal Action
- 3.3.4 Removal Action Construction Implementation Plan
- 3.3.5 Community Involvement Support
- 3.4 Task IV: Removal Action Construction
  - 3.4.1 Preconstruction Inspection and Conference
  - 3.4.2 Design Changes during Construction
  - 3.4.3 Removal Action Construction Completion and Acceptance
- 3.5 Task V: Operation and Maintenance
  - 3.5.1 O&M Plan
  - 3.5.2 Acceptance Inspection
- 3.6 Task VI: Reporting Requirements
  - 3.6.1 Monthly Progress Reports
  - 3.6.2 Annual O&M Progress Reports
  - 3.6.3 Summary of Reports and Submittals

### **3.1 TASK I: WORK PLAN**

The Work Plan shall consist of the overall strategy for performing the design, construction, operation, maintenance and monitoring for the Removal Action. The Work Plan shall outline the specific tasks required to implement the Removal Action, including a description of the technical approach, personnel requirements, plans, specifications, permit requirements, submittals, and deliverables.

The personnel requirements include the responsibilities and authority of all organizations and key personnel involved with the development and implementation of the Removal Action. In addition, the personnel requirements shall include the qualifications of key personnel directing the Removal Action tasks, including contractor personnel if known.

The Work Plan shall include a schedule, in real time, for conducting all activities associated with the Removal Action. All activities shall be consistent with the overall goal of submitting to the Forest Service the Construction Completion Report no later than April 1, 2013.

The Work Plan shall include a rationale and methodology for determining the suitability of cover material. Suitable cover material shall, at minimum, meet Action Memorandum cleanup standards and have appropriate geotechnical characteristics to make an evapotranspiration cover that will store water and provide a suitable growing medium for plants. The Work Plan shall provide the evaluation of off-site sources in the likely event that the on-site material is not suitable or is of insufficient volume.

#### **3.1.1 Site Access**

The Site is situated on National Forest System Lands; however, the Site is accessed via private land. Agreements for access through private land shall be obtained from the private land owners.

Temporary site access agreements may be obtained to allow access for pre-design studies; however long-term site agreements shall be obtained prior to Removal Action Construction. Long-term site

access agreements shall extend for the duration of all removal activities and Forest Service oversight activities. The Work Plan shall describe the activities to satisfy these requirements.

### **3.1.2 Pre-Design Studies Plan**

The Pre-Design Studies Plan is a component of the Work Plan. The Pre-Design Studies Plan shall outline the tasks associated with the pre-design studies. Information developed during pre-design studies is required to design and implement the Removal Action. At a minimum, the Pre-Design Studies Plan shall address the elements listed below in the pre-design studies.

- 1) Additional radiological surveys in the sheet wash area and investigate access road to delineate the area of contaminated soil to be removed;
- 2) Accurate determination of area background concentrations;
- 3) Additional radiological surveys and soil sample analysis for Ra-226 to correlate concentrations in soil to gamma survey results;
- 4) Evaluate candidate borrow sources for cover material;
- 5) Evaluate local vegetation analog on undisturbed ground near the site for purposes of establishing long term and low maintenance plants on the cover;
- 6) Identify leftover mining debris such as pipe and building remains that need to be disposed of to ensure site reclamation is successful; and
- 7) Identify archeological sites in areas where sampling or remediation work will be conducted.

The Pre-Design Studies Plan will identify and describe, in detail, activities to conduct these elements. The Pre-Design Studies Plan shall include sufficient sampling, testing, and analyses to develop quantitative performance, cost and design data for the Removal Action.

The Pre-Design Studies Plan shall be approved by the Forest Service prior to initiation of associated field activities or studies.

The Pre-Design Studies Plan shall include a Site Specific Sampling and Analysis Plan (SAP) and a Design Health and Safety Plan. Section 4.0 of this SOW describes key elements of these two plans.

Prior to development of the Pre-Design Studies Plan, the On-Scene Coordinator and the Project Manager will meet to discuss scope, objectives, quality assurance and quality control issues, resources, reporting, communication channels, schedule, and personnel roles and responsibilities involved in the Removal Action.

The pre-design studies will be conducted as described under Task II.

## **3.2 TASK II: PRE-DESIGN STUDIES**

All key elements associated with the pre-design studies shall be coordinated with the On-Scene Coordinator. The objective of the pre-design studies is two-fold: (1) to define and delineate the extent of contamination at the site; and (2) evaluate and confirm the specifications associated with the proposed cover soils and revegetation.

The following further describes the key elements of the pre-design studies:

- 1) Additional radiological surveys shall include sampling and analysis in the (a) sheet wash area; and (b) access road areas. The objective of these surveys is to delineate the extent of the contamination in these two areas. During past mining activities, ore may have spilled on the ground from haul vehicles; therefore, access road areas may have some degree of contamination. These surveys shall delineate all areas within the site boundary that contain radionuclides above the cleanup performance standards.
- 2) Investigate and designate borrow sources for cover material including particle size analysis, saturated hydraulic conductivity, soil water characteristic curve, and shrink-swell, wet-dry characteristics. Samples shall be taken over the full range of depth of the borrow source proposed to be utilized as cover material. Document volume calculations and estimates, uniformity of soil, and evaluate whether blending of soils might be necessary.
- 3) Evaluate local vegetation analog on undisturbed ground near the site displaying similar soil properties aspect, and elevation. Document data regarding plant species, coverage, leaf area index, and root depth and density.
- 4) Identify and document past mining debris such as pipe and building remains that need to be disposed of and any other remediation to restore the mine site to pre-mining conditions.

Furnish all services, including required field work, materials, supplies, labor, equipment, supervision, and data interpretation. Sampling, testing, and analyses shall be performed to provide the technical data to prepare and support the removal design plans and specifications for the Removal Action.

Activities in the Pre-Design Studies Plan shall be completed. Thereafter, a Draft Pre-Design Studies Report shall be prepared and submitted for review and comment to the Forest Service. The Draft Pre-Design Studies Report shall be submitted prior to or concurrently with submittal of the Preliminary Design submittal in accordance with the schedule in the approved Work Plan.

The Draft Pre-Design Studies Report shall present investigation/testing data and results, the proposed approach for determining compliance with the cleanup performance standard consistent with Multi-Agency Radiation Survey and Site investigation Manual (MARSSIM), and other analysis, including a cost analysis, when appropriate.

The Final Pre-Design Studies Report shall be submitted to the Forest Service in accordance with schedule in the approved Work Plan.

### **3.3 TASK III: REMOVAL DESIGN**

The Removal Design shall be prepared and submitted to the Forest Service in accordance with the schedule set forth in the approved Work Plan. The Removal Design shall include the construction plans, specifications, drawings, and supporting plans to implement the Removal Action at the Site as defined in the Sections 1.0 and 2.0 of this SOW, the Action Memorandum, and the UAO.

### **3.3.1 General Requirements for Construction Plans and Specifications**

The construction plans and specifications shall comply with the standards and requirements outlined in the following sections. All components of the Removal Design shall be clear, comprehensive and organized. Supporting data and documentation shall define the functional aspects of the Removal Action. The design documents shall demonstrate that the Removal Action is capable of meeting Removal Action Objectives outlined in the Action Memorandum, including any performance standards.

The construction plans and specifications shall include the following:

- 1) Discussion of the design strategy and design basis including:
  - a. Compliance with requirements of the Action Memorandum, the UAO and all applicable regulatory requirements; and
  - b. Minimization of environmental and public health impacts;
- 2) Discussion of the technical factors of importance including:
  - a. Use of currently accepted environmental control measures and technologies;
  - b. The constructability of the design; and
  - c. Use of currently accepted construction practices and techniques
- 3) Description of the assumptions made and detailed justification for those assumptions.
- 4) Discussion of possible sources of error and possible operation and maintenance problems.
- 5) Detailed drawings of the proposed design.
- 6) Detailed specifications describing all aspects of construction.
- 7) Appendices including results of laboratory tests, field tests and any additional studies.

### **3.3.2 Design Phases**

The Removal Design shall be developed in phases and submitted to the Forest Service for review after each phase. Periodic meetings with the Forest Service after each phase are required.

Submittals shall be made in accordance with the schedule in the approved Work Plan.

#### **3.3.2.1 Preliminary Design**

A Preliminary Design shall reflect the design completion at approximately 30% completion and submitted to the Forest Service for review and comment. This is the first phase of the Design Phases. During this phase of the design process, the Preliminary Design shall identify and note existing conditions at the site that may influence the design and implementation of the Removal Action. The Preliminary Design shall address the basic technical requirements of the Removal Action. The Preliminary Design submittal shall include the following elements, at a minimum:

- 1) Preliminary plans, drawings and sketches, including design calculations;
- 2) Results of additional field sampling including background and correlation sampling and identification of areas of sheet wash that need removal and consolidation;
- 3) Identification of sites of potential archeological interest within anticipated work areas;
- 4) Design assumptions and parameters;
- 5) Proposed cleanup verification methods, including compliance with applicable laws and regulations;



- 6) Outline of design specifications;
- 7) Proposed locations of borrow pits and evaluation of suitability of borrow soils for cover material and revegetation;
- 8) Proposed locations of construction activity and stockpile locations;
- 9) Expected long-term operation and monitoring requirements;
- 10) Real estate and easement requirements; and
- 11) Preliminary construction schedule including contracting strategy.

The Preliminary Design shall include the supporting data and documentation to define the functional aspects of the Removal Action. In addition, the Preliminary Design shall include engineering design calculations to support the elements of the design.

Any revisions or amendments to the Preliminary Design as required by the Forest Service shall be incorporated into the subsequent design phase.

### **3.3.2.2 Pre-Final Design**

A Pre-Final Design shall reflect the design completion at approximately 90% completion and submitted to the Forest Service for review and comment in accordance with the schedule in the approved Work Plan. The Pre-Final Design shall incorporate modifications submitted by the Forest Service during review of Pre Design Studies Report, technical memoranda, and the Preliminary Design. The Pre-final Design submittal shall consist of the following components, at a minimum:

- 1) 90 % Design Plans and Specifications;
- 2) Construction Quality Assurance Plan;
- 3) Operation and Maintenance Plan;
- 4) Removal Action Construction Implementation Plan;
- 5) Cost Estimate for the Removal Action;
- 6) Drawings; and
- 7) Construction Health and Safety Plan

Correlation between drawings and specifications is a basic requirement of construction plans and specifications submittal package. Therefore, prior to submitting the Pre-Final Design, perform the following tasks:

- 1) Coordinate and cross-check the specifications and drawings; and
- 2) Complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

The Forest Service shall submit written comments/revisions to the Pre-Final Design. These comments shall be provided as a narrative report and/or markings on design plan sheets (marked-up 90% prints). These revisions shall be incorporated into the Final Design.

### **3.3.2.3 Final Design**

The Final Design is the final phase of the design process. The Final Design is a package which includes the plans, specifications, cost estimate, and drawings. The Final Design shall be prepared in

accordance with the approved schedule in the Work Plan and submitted to the Forest Service for approval. The Final Design shall incorporate all comments and revisions provided by the Forest Service. If required, the On-Scene Coordinator may request additional revisions and a re-submittal may be required.

Upon request from the On-Scene Coordinator, submit any marked-up prints or drawings, which the Forest Service may have provided in the form of comments/revisions on previous design submittals.

### **3.3.3 Cost Estimate for the Removal Action**

A Cost Estimate for the Removal Action shall be prepared during the design phase. The cost estimate shall include both capital and operation and maintenance costs for the Removal Action. The cost estimate shall include current prices for labor, material, transportation, equipment and other services.

A Final Cost Estimate shall reflect the elements of the Final Design. It shall be submitted in the Final Design package.

### **3.3.4 Removal Action Construction Implementation Plan**

A Removal Action Construction Implementation Plan is a plan that outlines the (a) schedule for the specific components to coordinate and implement the design of the Removal Action and (b) describes the overall strategy and activities to construct the specific design components of the Removal Action. A Construction Implementation Plan shall be prepared in coordination with the On-Scene Coordinator and the schedule in the Work Plan. Essentially, the Construction Implementation Plan schedule is embedded in the Work Plan schedule. It shall include a schedule for the construction that identifies timing for initiation and completion of all critical path tasks in the design. The Respondents shall specifically identify dates for completion of the construction and major interim milestones in conformance with the overall goal of submitting the Construction Completion Report not later than April 1, 2013. The Construction Implementation Plan is a management tool which should address the following topics:

- 1) Activities to implement the construction of each of the components of the design;
- 2) How these activities will be coordinated to facilitate construction/ implementation in accordance with the approved schedule in the Work Plan;
- 3) Potential major scheduling problems or delays, which may impact overall schedule;
- 4) Establish lines of communication for discussing and resolving problems, if they arise;
- 5) Common and/or anticipated remedies to overcome potential problems and delays.

The draft Construction Implementation Plan shall be submitted with the Prefinal Design for review and comment by the Forest Service. The final Construction Implementation Plan shall be submitted with the Final Design for review and approval.

### **3.3.5 Community Involvement Support**

Community Involvement Support includes preparation of a one-page, two sided Fact Sheet. The Fact Sheet shall be in color, include photos, and key information about the Removal Action. The intent of this Fact Sheet is for distribution by the Forest Service at either a public meeting or in a mailing.

### **3.4 TASK IV: REMOVAL ACTION CONSTRUCTION**

The Removal Action Construction consists of the activities associated with the implementation of the Final Design. The Removal Action shall be implemented in accordance with the Final Design, Construction Quality Assurance Plan, Construction Health and Safety Plan, and Construction Implementation Plan. Implementation shall include the activities described in the following sections.

#### **3.4.1 Preconstruction Inspection and Conference**

A preconstruction inspection and conference shall be scheduled with the Forest Service. The preconstruction inspection and conference shall accomplish the following:

- 1) Review methods for documenting and reporting inspection data;
- 2) Review methods for distributing and storing documents and reports;
- 3) Review work area security and safety protocol;
- 4) Discuss any appropriate modifications to the Construction Quality Assurance Plan to ensure that site specific considerations are addressed;
- 5) Introduce key construction contractor, engineering and project management personnel and review roles during construction activities;
- 6) Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations; and
- 7) Discuss the sensitivity of adjacent archeological sites and the importance of keeping material and equipment confined to only pre approved locations.

The preconstruction inspection and conference shall be held fourteen days (14) prior to start of construction. The preconstruction inspection and conference shall be documented by a designated person and minutes shall be transmitted by the Respondents to all parties in attendance.

#### **3.4.2 Design Changes during Construction**

During construction, unforeseen site conditions, changes in estimated quantities of required construction materials and other design changes or modifications to the Final Design associated with the project shall be presented to the Forest Service On-Scene Coordinator in a timely manner. Any Final Design changes and/or modifications shall be pre-approved, in writing, by the Forest Service On-Scene Coordinator prior to implementation. Some examples of design changes and/or modifications include:

- 1) Those that involve the deletion or addition of a major component of the approved Removal Action (e.g. deleting any designed layer of a multi-layer cap);
- 2) Those that result in a less effective treatment for wastes associated with the site;
- 3) Any changes that may result in an increase of the exposure to chemicals of concern and/or risk to human health or the environment as compared to the goals for the completed Removal Action as stated in the UAO and this SOW;
- 4) Those that result in a significant delay in the completion of the Removal Action;
- 5) Any other changes/modifications that alter or are outside of the scope or intent of the

- approved removal design; and
- 6) Forest Service shall be notified of other changes made during construction through daily inspection reports and monthly progress reports.

### **3.4.3 Removal Action Construction Completion and Acceptance**

Within seven (7) days prior to completion of construction, the following activities and reporting shall be scheduled with the Forest Service On-Scene Coordinator to ensure timely completion of the Removal Action Construction tasks, Forest Service approval, closeout and transition to the operation and maintenance/monitoring phase of the Removal Action.

#### **3.4.3.1 Pre-Final Construction Conference**

A pre-final construction conference is a meeting at the Site with the Forest Service On-Scene Coordinator to discuss procedures and requirements for Removal Action construction completion and final inspection. A pre-final construction conference shall be scheduled, in writing, with the Forest Service On-Scene Coordinator. The meeting shall include representative from both parties including the Project Manager, the Forest Service On-Scene Coordinator, construction contractors, and design engineer, if requested.

A list of suggested topics to be included at the conference, but is not limited to the following:

- 1) Final Operation and Maintenance (O&M) Plan submission;
- 2) Cleanup responsibilities;
- 3) Demobilization activities; and
- 4) Pre-final inspection schedule;

Details of the Pre-Final Construction Conference shall be documented by a designated person and minutes shall be transmitted by the Respondents to all parties in attendance.

#### **3.4.3.2 Pre-Final Inspection**

A Pre-Final Inspection is a field meeting at the Site with the Forest Service On-Scene Coordinator to review the implementation of the Final Design. The Pre-Final Inspection will follow the pre-final construction conference. The Forest Service On-Scene Coordinator shall schedule and lead the pre-final inspection. The field meeting shall include representative from both parties including the Project Manager, the Forest Service On-Scene Coordinator, construction contractors, design engineer (if requested), and any other Forest Service staff.

The Pre-Final Inspection will consist of a walk-through inspection of the entire site. The completed site work will be inspected to determine whether the project is complete and consistent with the contract documents and the approved Work Plan. Any outstanding deficient or incomplete construction items shall be identified and noted during the inspection.

A Pre-Final Inspection Report is a report that describes and outlines outcomes of the pre-final inspection. These outcomes shall include outstanding construction items, actions required to resolve those items, completion date for those items and a date for the final inspection. The Pre-Final

Inspection Report shall be submitted to Forest Service within seven (7) days following the pre-final inspection. A copy of this report shall be provided to all parties in attendance of the pre-final inspection. The Forest Service will review this report and provide any deficiencies and/or discrepancies; a re-submittal of this report shall be required within seven (7) days of notification of any deficiencies and/or discrepancies.

#### **3.4.3.3 Final Inspection**

A Final Inspection is a field inspection of the Removal Action Construction. The field inspection shall consist of a walk-through field inspection primarily focusing on outcomes of the Pre-Final Inspection. These outcomes include outstanding construction items, deficiencies, and/or non-compliance with design plans and specifications. The Pre-Final Inspection Report shall be used as a checklist. If any construction items remain deficient or incomplete after the Final Inspection, the inspection shall be considered a pre-final inspection requiring another pre-final inspection report and final inspection. Written notification to the Forest Service is required within seven (7) days upon completion of any outstanding construction items.

Demobilization of equipment shall be initiated; however, appropriate equipment shall be available to remediate any outstanding construction items identified during the pre-final or final inspections. All equipment scheduled for demobilization shall have been cleaned, decontaminated and staged for demobilization prior to the final inspection.

The Forest Service On-Scene Coordinator shall schedule and lead the Final Inspection. The field meeting shall include representative from both parties including the Project Manager, the Forest Service On-Scene Coordinator, construction contractors, design engineer (if requested), and any other Forest Service staff. A Final Inspection report shall be completed to document outcomes of the final inspection and submitted to the Forest Service within seven (7) days following the final inspection.

#### **3.4.3.4 Construction Completion Report**

The Construction Completion Report is a report which includes the following elements, at a minimum:

- 1) A brief description of the outstanding construction items identified in the pre-final inspection and final inspection reports; include certification that these items were in compliance and in accordance with Forest Service direction and approval;
- 2) A synopsis of the work defined in the approved Work Plan and the Final Design and certification that this work was performed in accordance with Forest Service direction and approval;
- 3) A description of any changes and/or modifications to the work defined in the approved Work Plan and Final Design, including as-built drawings of the constructed Removal Action structures, and describe why the changes and/or modifications were required or beneficial for the success of the project;
- 4) Recommendations for the overall project.

The Construction Completion Report shall be submitted to the Forest Service within sixty (60) days following the Final Inspection Report and receipt of validated, final laboratory analytical data packages.

The Construction Completion Report shall be reviewed by the Forest Service. The Forest Service shall provide comments and/or deficiencies for a re-submittal of a revised Construction Completion Report. The revised report shall be submitted to the Forest Service within thirty (30) days of receipt of those comments and/or deficiencies. The Forest Service shall review the revised report and inform the Respondents, in writing, of approval or disapproval of the final Construction Completion Report.

### **3.5 TASK V: OPERATION AND MAINTENANCE**

Following Forest Service approval of the Construction Completion Report, the Respondents shall implement maintenance procedures as required by the approved Operation and Maintenance Plan for the Removal Action. The Forest Service understands and expects weather conditions to affect the establishment of the vegetation (plants) at the Site. Vegetation shall be in-place within a reasonable amount of time.

#### **3.5.1 O&M PLAN**

The purpose of the Operation and Maintenance Plan (O&M Plan) is to cover long term operation and maintenance of the Removal Action. The Operation and Maintenance (O&M) Plan shall describe the O&M tasks and inspection activities. The plan, at a minimum, shall require annual inspections to be composed of the elements listed below.

- 1) Evapotranspiration Cover Inspection
  - a. Check for erosion of cap and repair erosion and reseed
  - b. Check for areas of subsidence and fill to restore proper shape for drainage.
  - c. Verify adequate vegetation coverage and reseed areas where vegetation does not meet plant coverage requirements
  - d. Check for holes caused by burrowing animals and fill in holes.
- 2) Mine Site Inspection
  - a. Inspect repository perimeter fence for damaged posts, broken wire, and gate damage and perform repairs.
  - b. Inspect mine shafts and vents for subsidence or breakthrough and repair as required.
  - c. Inspect drainage channels and remediated slopes for erosion and repair erosion and reseed.
- 3) Typical O&M tasks and inspection activities

The O&M plan shall be submitted with the Pre-Final Design.

#### **3.5.2 Acceptance Inspection**

The acceptance inspection is a field inspection which will consist of a walk-through inspection of the project site focusing on any problems noted in the annual O&M progress reports.

At the end of five (5) calendar years of operation and maintenance, if the Site meets all performance standards including successful establishment of a minimum of 80% of the natural analog for re-

vegetation, the Respondents may request, in writing, acceptance of the Removal Action from the Forest Service. Any defects in the design or construction of the Removal Action shall be identified and corrected prior to requesting acceptance.

The Forest Service On-Scene Coordinator shall schedule and conduct the acceptance inspection with assistance from the party having primary responsibility for operation and maintenance.

Final acceptance by the Forest Service shall not be made if any items remain deficient or do not meet the performance standards. Any deficient items shall be identified and a new acceptance inspection will be scheduled when the corrections have been made. Upon determination by the Forest Service that the site meets all performance goals and is acceptable, written notice of Forest Service's acceptance of the site shall be provided to the Respondents. The Forest Service will then take responsibility for inspecting the site no less frequently than once every five years to ensure that the Removal Action continues to be protective of human health and the environment.

### **3.6 TASK VI: REPORTING REQUIREMENTS**

The Respondents shall prepare and submit work plans, design plans, specifications, and reports as set forth in Tasks I through V of this SOW to document the design, construction, operation, maintenance, and performance monitoring of the Removal Action.

#### **3.6.1 Monthly Progress Reports**

Monthly progress reports shall be prepared, as described below, to enable the Forest Service to track project progress during the removal design and construction phases of the Removal Action.

The Respondents shall at a minimum provide the Forest Service with monthly progress reports during the design and construction phases of the Removal Action including the information listed below. When appropriate, the Work Plan shall specify progress reports to be submitted more frequently.

- 1) A description of the work performed during the reporting period and estimate of the percentage of the Removal Action completed
- 2) Summaries of all findings and sampling during the reporting period
- 3) Summaries of all changes made in the Removal Action during the reporting period, indicating consultation with Forest Service and approval by the Forest Service of those changes, when necessary
- 4) Summaries of all contacts with representatives of the local community, public interest groups or government agencies during the reporting period
- 5) Summaries of all problems or potential problems encountered during the reporting period, including those which delay or threaten to delay completion of project milestones with respect to the approved schedule in the Work Plan and Pre-Design Studies Report
- 6) Summaries of actions taken and being taken to rectify problems
- 7) Summaries of actions taken to achieve and maintain cleanup standards and performance standards
- 8) Changes in personnel during the reporting period

- 9) Projected work for the next reporting period
- 10) Copies of daily reports, inspection reports, sampling data, laboratory/ monitoring data, etc.

### **3.6.2 Annual O&M Progress Reports**

An Annual O&M Progress Report shall be prepared and submitted to the Forest Service annually during the operation and maintenance phase of the Removal Action.

Annual O&M progress reports shall consist of the same information required for the monthly progress reports as specified in Section 3.6.1 of this SOW. It shall also include an evaluation of the effectiveness of meeting the cleanup standards, performance standards and other goals of the Removal Action as defined in the UAO, this SOW, the Work Plan and the approved Final Design.

### **3.6.3 Summary of Reports and Submittals**

The following is a summary, not all inclusive, of Reports and Submittals:

1. Work Plan
2. Design Health and Safety Plan
3. Pre-Design Studies Plan
4. Site Specific Sampling and Analysis Plan
5. Pre-Design Studies Report
6. Preliminary Design (30%)
7. Pre-Final Design (90%)
8. Construction Health and Safety Plan
9. Construction Quality Assurance Plan
10. Operation & Maintenance Plan
11. Final Design (100%), including Estimated Cost, Plans and Specifications
12. Construction Implementation Plan
13. Fact Sheet
14. Pre-Final Inspection Report
15. Final Inspection Report
16. Construction Completion Report
17. Monthly Progress Reports
18. Annual O&M Progress Reports
19. Meeting Notes/Minutes for Conferences, Inspections and Field Meetings

Draft and Final reports and submittals shall be prepared and submitted in accordance with this SOW and the UAO.

## **4.0 DESCRIPTION OF PROJECT PLANS**

Project Plans are plans included in this SOW to support activities associated with the Removal Action. These plans shall be prepared and submitted as outlined in Section 3.0 of this SOW. These plans include:



- 1) Site Specific Sampling and Analysis Plan (SAP),
- 2) Design Health and Safety Plan,
- 3) Construction Health and Safety Plan and
- 4) Construction Quality Assurance Plan

The following sections describe in detail the required contents of each of these Project Plans.

#### **4.1 SITE SPECIFIC SAMPLING AND ANALYSIS PLAN (SAP)**

A Site Specific Sampling and Analysis Plan (SAP) is a plan which includes all sampling and analysis activities associated with the Removal Action. In addition, the SAP shall include sample analysis, data handling, and quality assurance.

The SAP shall be submitted with the Pre-Design Studies Plan.

The SAP shall, at a minimum, include the following elements:

1. Data Collection Strategy - The strategy section of the SAP shall include but not be limited to the following:
  - a. Description of the types and intended uses for the data, relevance to removal or restoration goals, and the necessary level of precision, accuracy, and statistical validity for these intended uses;
  - b. Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;
  - c. Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, variation of physical or chemical parameters throughout the Site, a process condition or an environmental condition. Factors which shall be considered and discussed include, but are not limited to:
    - i) Environmental conditions at the time of sampling;
    - ii) Sampling design (including number, location and distribution);
    - iii) Representativeness of selected media, exposure pathways, or receptors;
    - iv) Representativeness of selected analytical parameters;
    - v) Representativeness of testing procedures and conditions; and
    - vi) Independence of background or baseline from site influences.
  - d. Description of the measures to be taken to assure that the following data sets can be compared quantitatively or qualitatively to each other:
    - i) Removal Action data collected by the Respondents;
    - ii) Removal Action data generated by an outside laboratory or consultant employed by the Respondent versus data collected by the Respondents;
    - iii) Data generated by separate consultants or laboratories over some time period not necessarily related to the Removal Action effort; and
    - iv) Data generated by Forest Service or by an outside laboratory or consultant

employed by Forest Service.

2. Sample Analysis - The Sample Analysis section shall specify the following:
  - a. Chain-of-custody, including:
    - i) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment;
    - ii) Sample sealing, storing and shipping procedures to protect the integrity of the sample; and,
    - iii) Pre-prepared sample labels containing all information necessary for effective sample tracking.
  - b. Sample storage procedures and storage times;
  - c. Sample preparation methods;
  - d. Analytical procedures, including:
    - i) Scope and application of the procedure;
    - ii) Sample matrix;
    - iii) Potential interferences;
    - iv) Precision and accuracy of the methodology;
    - v) Method detection limits;
  - e. Calibration procedures and frequency;
  - f. Data reduction, validation and reporting;
  - g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
    - i) Method blank(s);
    - ii) Laboratory control sample(s);
    - iii) Calibration check sample(s);
    - iv) Replicate sample(s);
    - v) Matrix-spiked sample(s);
    - vi) "Blind" quality control sample(s);
    - vii) Control charts;
    - viii) Surrogate samples;
    - ix) Zero and span gases; and
    - x) Reagent quality control checks.
  - h. Preventative maintenance procedures and schedules;
  - i. Corrective action (for laboratory problems); and
  - j. Turnaround time.
3. Data Record - The SAP shall also provide the format to be used to present the raw data and the conclusions of the investigation, as described in a, b, and c below:
  - a. The data record shall include the following:
    - i) Unique sample or field measurement code;

- ii) Sampling or field measurement location and sample or measurement type;
  - iii) Sampling or field measurement raw data;
  - iv) Laboratory analysis ID number;
  - v) Property or component measured; and
  - vi) Result of analysis (e.g., concentration).
- b. Tabular Displays - The following data shall be presented in tabular displays:
- i) Unsorted (raw) data;
  - ii) Results for each medium, organism, or for each constituent measured;
  - iii) Data reduction for statistical analysis;
  - iv) Sorting of data by potential stratification factors (e.g., location, soil layer, topography, vegetation form);
  - v) Summary data (i.e., mean, standard deviation, min/max values, and sample number); and
  - vi) Comparisons with background or reference data.
- c. Graphical Displays - The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):
- d. Display sampling locations and sampling grid:
- i) Indicate boundaries of sampling area, and areas where more data are required;
  - ii) Display levels of contamination at each sampling location,
  - iii) Display geographical extent of contamination

All radiological surveys shall be performed in accordance with the Multi Agency Radiation and Site Investigation Manual (MARSSIM). This includes the final status survey to demonstrate that cleanup Removal Action goals were successfully achieved.

#### **4.2 HEALTH AND SAFETY PLANS**

Two Health and Safety Plans shall be prepared: (1) Design Health and Safety Plan and (2) Construction Health and Safety Plan. These two Health and Safety Plans are designed to protect on-site personnel and area residents from physical, chemical and all other hazards posed by the design, construction, operation and maintenance activities of the Removal Action.

The Health and Safety Plans shall address the following elements:

1. Major elements of the Health and Safety Plans shall include:
  - a. Facility or site description including availability of resources such as roads, water supply, electricity and telephone service;
  - b. Description of the known hazards and an evaluation of the risks associated with the incident and with each activity conducted;
  - c. Listing of key personnel (including the site safety and health officer) and alternates responsible for site safety, Removal operations, and for protection of public health;
  - d. Delineation of work area, including a map;

- e. Description of levels of protection to be worn by personnel in the work area;
- f. Description of the medical monitoring program for on-site responders;
- g. Description of standard operating procedures established to assure the proper use and maintenance of personal protective equipment;
- h. The establishment of procedures to control site access;
- i. Description of decontamination procedures for personnel and equipment;
- j. Establishment of site emergency procedures;
- k. Availability of emergency medical care for injuries and toxicological problems;
- l. Description of requirements for an environmental monitoring program. (This should include a description of the frequency and type of air and personnel monitoring, environmental sampling techniques and a description of the calibration and maintenance of the instrumentation used.);
- m. Specification of any routine and special training required for responders; and
- n. Establishment of procedures for protecting workers from weather related problems.

The Health and Safety Plans shall be consistent with:

- a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- b. CERCLA Sections 104(f) and 111(c)(6);
- c. EPA Order 1440.3 -- Respiratory Protection;
- d. EPA Order 1440.2 -- Health and Safety Requirements for Employees Engaged in Field Activities;
- e. EPA Occupational Health and Safety Manual;
- f. EPA Interim Standard Operating Safety Procedures and other EPA guidance as developed by EPA;
- g. OSHA regulations particularly in 29 CFR 1910 and 1926;
- h. Applicable radiation safety standards (e.g. 10CFR 20.1101);
- i. State and local regulations; and
- j. Site or facility conditions.

As tasks are completed, the Health and Safety Plans shall be updated to reflect current site activities of the Removal Action.

#### **4.3 CONSTRUCTION QUALITY ASSURANCE PLAN**

The Construction Quality Assurance Plan is a plan which consists of site specific procedures to ensure that the completed Removal Action meets or exceeds all design criteria and specifications. A Construction Quality Assurance Plan shall be prepared based on the plans and specifications and performance standards for the Removal Action.

A Construction Quality Assurance Plan shall be submitted with the Pre-Final Design.

The Construction Quality Assurance Plan shall, at a minimum, include the items described in the following sections.

##### **4.3.1 Responsibility and Authority**

The responsibility and authority of all organizations (i.e. technical consultants, construction firms, etc.) and roles and responsibilities of key positions shall be described in the Construction Quality Assurance Plan. Key positions shall include a Registered Professional Engineer who will serve as the Construction Quality Assurance officer.

#### **4.3.2 Inspection Activities**

The Construction Quality Assurance Officer shall conduct the inspection activities during the Removal Action. The inspection activities shall be described in detail in the Construction Quality Assurance Plan. Inspection activities shall include observations and tests that will be used to monitor the construction of the Removal Action. The scope and frequency of each type of inspection shall also be identified. Inspections shall verify compliance with the design, applicable requirements of state and federal law and performance standards. Inspections shall also ensure compliance with all health and safety standards and procedures.

#### **4.3.3 Sampling Requirements**

The sampling requirements include activities to ensure that the design specifications and performance standards are achieved. These activities shall also include the elements of the SAP. The description of these activities shall include sample sizes, sample locations, frequency of sampling, testing to be performed, acceptance and rejection criteria, and plans for correcting problems as addressed in the design specifications.

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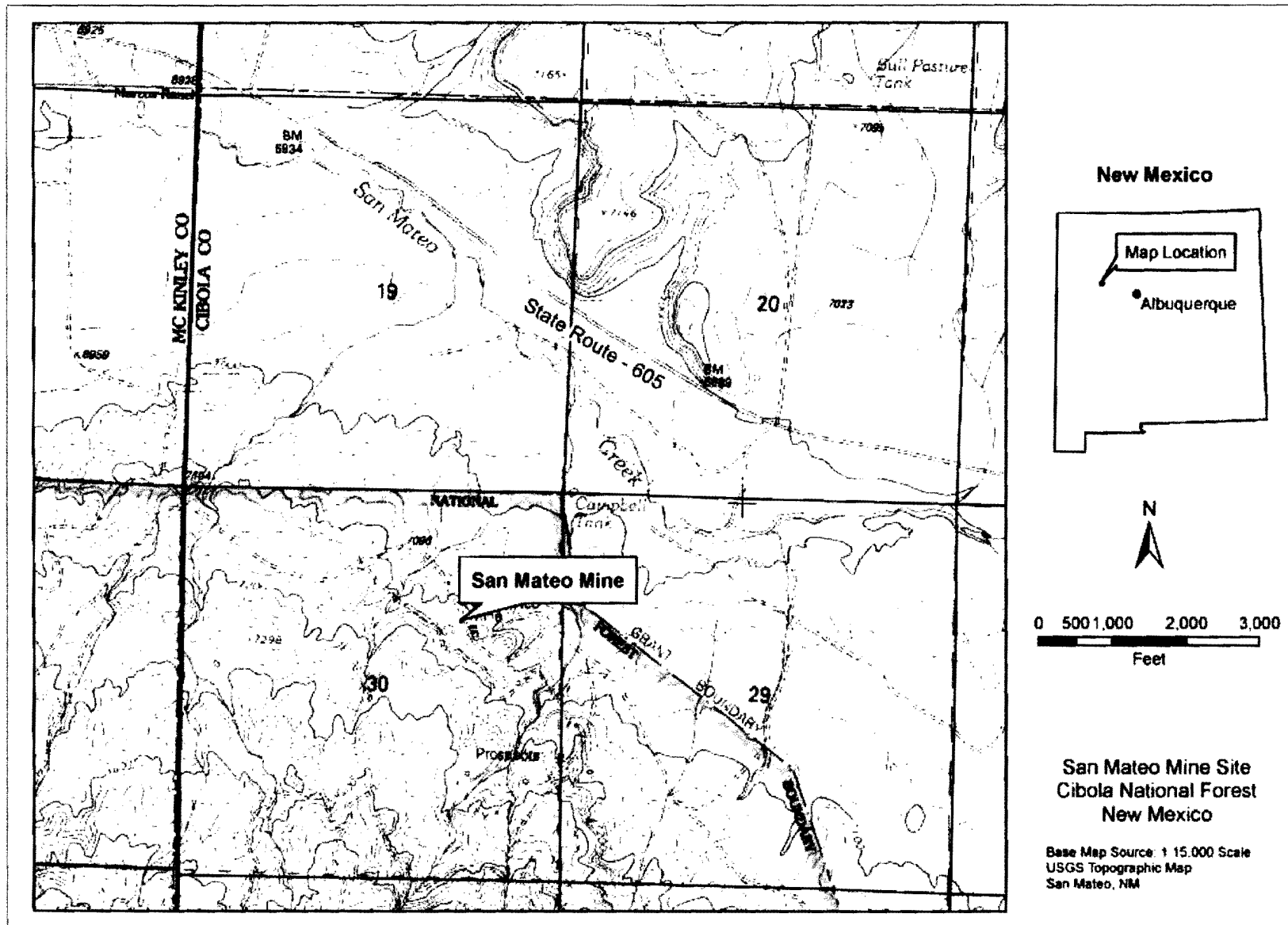


Figure 1:  
Site Vicinity Map San Mateo Mine Cibola County, New Mexico

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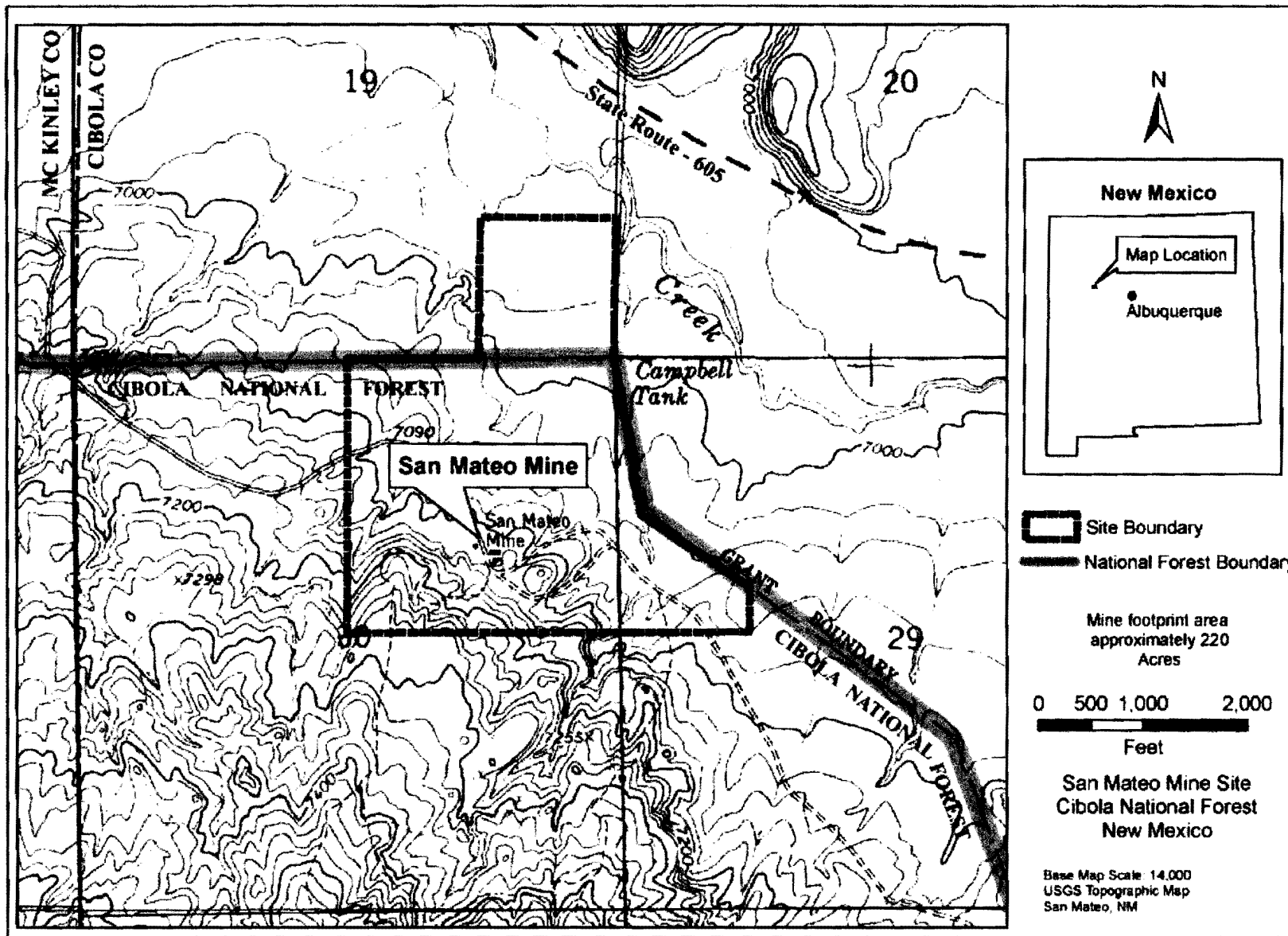


Figure 2:  
Site Boundary Map San Mateo Mine Cibola County, New Mexico

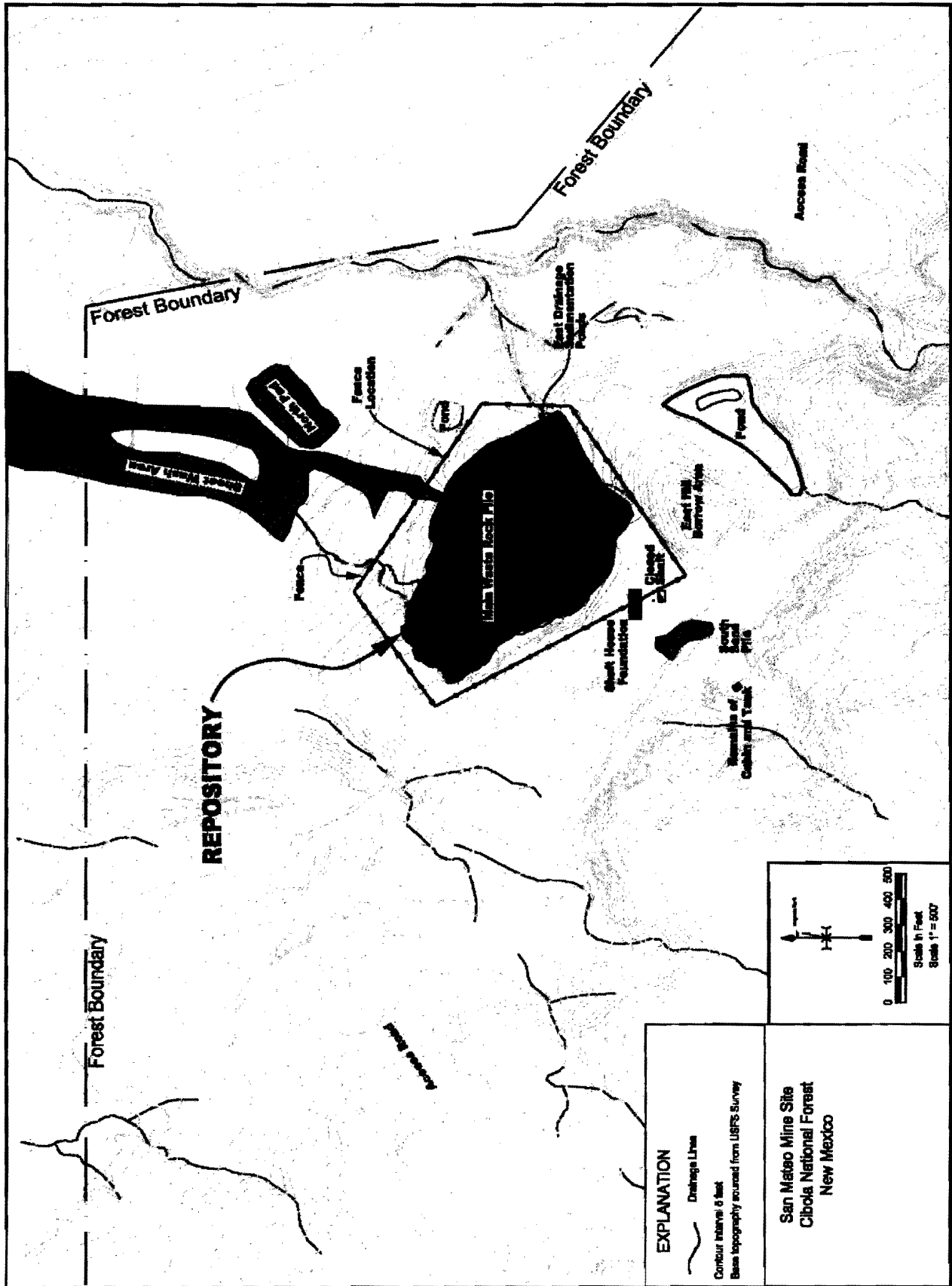


Figure 3:  
San Mateo Mine Site Features