

## IAG COVER SHEET

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UNITED STATES ENVIRONMENTAL PROTECTION  
AGENCY REGION VIII  
AND THE  
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY  
AND THE  
UNITED STATES ARMY

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IN THE MATTER OF: )

The U.S. Department )  
of the Army )

Tooele Army Depot-North )  
Utah )  
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) Federal Facility  
) Agreement Under  
) CERCLA Section 120

) Administrative  
) Docket Number:

FFA SIGNING CEREMONY  
16 SEPTEMBER 1991, 0930-1000  
THE EAGLES NEST  
TOOELE ARMY DEPOT

OPENING REMARKS . . . . . COL DAVID M. EMLING  
Commander, Tooele Army Depot

REMARKS . . . . . MR. KENNETH L. ALKEMA  
Executive Director, Dept of  
Environmental Quality,  
State of Utah

REMARKS . . . . . MR. JACK W. MCGRAW  
Deputy Regional Administrator,  
Region VIII, U.S. EPA

SIGNING OF FFCA  
COL EMLING  
MR. ALKEMA  
MR. MCGRAW

CLOSING REMARKS . . . . . COL DAVID M. EMLING  
QUESTION & ANSWERS

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ATTACHMENTS

- Attachment 1: List of Source Areas and Associated Operable Units
- Attachment 2: List of Solid Waste Management Units (SWMUs) Not Within the Scope of This Agreement
- Attachment 3: Statement of Facts
- Attachment 4: Map of TEAD-N Site/ Extent of Known Contamination
- Attachment 5: Statement of Work

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII  
AND THE  
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY  
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The U.S. Department ) Federal Facility  
of the ARMY ) Agreement Under  
Tooele Army Depot-North ) CERCLA Section 120  
Utah ) Administrative  
Docket Number:  
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Based on the information available to the Parties on the effective date of this Federal Facility Agreement (Agreement), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

1. PARTIES BOUND

1.1 The Parties to this Agreement are the United States Environmental Protection Agency (EPA), the United States Army (U.S. Army), and the Utah Department of Environmental Quality (UDEQ). The terms of the Agreement shall apply to and be binding upon EPA, the Utah Department of Environmental Quality, the U.S. Army, and their successors and assigns.

1.2 This Agreement shall be enforceable against all of the Parties to this Agreement. This Section shall not be construed as an agreement to indemnify any person. The U.S. Army shall notify its agents, members, employees, contractors for the Site, and all subsequent owners, operators, and lessees of the Site of the existence of this Agreement.

1.3 Each Party shall be responsible for ensuring that its contractors and its successors and assigns comply with the terms and conditions of this Agreement. Each Party will notify the other Parties of the identity and assigned tasks of each of its contractors performing work under this Agreement upon their selection.

1.4 The UDEQ is the designated single State agency, in accordance with the laws of the State of Utah, responsible for the State and Federal programs to be carried out under this Agreement, and the lead agency for the State of Utah, and its participation in and obligations under this Agreement are binding on the State of Utah, as provided by 19-6-323, Utah Code Annotated.

## 2. JURISDICTION

2.1 Each Party is entering into this Agreement pursuant to the following authorities:

(a) EPA enters into those portions of this Agreement that relate to the remedial investigation/feasibility study (RI/FS) pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9620(e)(1), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter jointly referred to as CERCLA), and the Resource Conservation and Recovery Act (RCRA) Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereinafter jointly referred to as RCRA), and Executive Order (E.O.) 12580;

(b) EPA enters into those portions of this Agreement that relate to operable unit remedial actions and final remedial actions pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), and E.O. 12580;

(c) The U.S. Army enters into those portions of this Agreement that relate to the RI/FS pursuant to CERCLA Section 120(e)(1), 42 U.S.C. Section 9620(e)(1), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), E.O. 12580, the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4321, et seq., and the Defense Environmental Restoration Program (DERP), 10 U.S.C. Section 2701, et seq.;

(d) The U.S. Army enters into those portions of this Agreement that relate to operable unit remedial actions and final remedial actions pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h), and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), E.O. 12580, and the DERP; and

(e) UDEQ enters into this Agreement pursuant to CERCLA Sections 120(f) and 121(f), 42 U.S.C. Sections 9620(f) and 9621(f), Section 3006 of RCRA, 42 U.S.C. Section 6926, 19-6-323,

Utah Code Annotated, and Section 101 et seq., Title 19, Chapter 6, Utah Code Annotated.

3. STATEMENT OF PURPOSE

3.1 The general purposes of this Agreement are to:

(a) Ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect public health, welfare and the environment;

(b) Establish a procedural framework and schedule for developing, implementing and monitoring appropriate response actions at the Site in accordance with CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), Superfund guidance and policy, RCRA, RCRA guidance and policy, and applicable State law; and

(c) Facilitate cooperation, exchange of information and participation of the Parties in such actions.

3.2 Specifically, the purposes of this Agreement are to:

(a) Establish requirements for the performance of an RI to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release and threatened release of hazardous substances, pollutants, or contaminants at the Site and to establish requirements for the performance of an FS for the Site to identify, evaluate, and select alternatives for the appropriate remedial action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants, or contaminants at the Site in accordance with CERCLA and applicable State law;

(b) Identify the nature, objective, and schedule of response actions to be taken at the Site. Response actions at the Site shall attain that degree of cleanup of hazardous substances, pollutants or contaminants mandated by CERCLA and applicable State law;

(c) Identify Operable Unit (OU) Remedial Actions which are appropriate at the Site prior to implementation of Final Remedial Action at the Site. Operable Unit Remedial Action Alternatives shall be identified and proposed to the Parties prior to proposal of the Final Remedial Action at the Site. This process is designed to promote cooperation among the Parties in identifying Operable Unit Remedial Actions prior to selection of the Final Remedial Action at the Site. It is the intention of the Parties to identify Operable Unit Remedial Actions as early as practicable to expedite clean up at the Site.



(d) Implement the selected remedial action(s) in accordance with CERCLA and applicable State law and meet the requirements of CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), for interagency agreements;

(e) Assure compliance, through this Agreement, with RCRA and other Federal and State hazardous waste laws and regulations for matters covered herein;

(f) Coordinate response actions at the Site with the mission and support activities at Tooele Army Depot, Tooele, Utah (TEAD-N);

(g) Expedite the cleanup process to the extent consistent with protection of human health and the environment;

(h) Provide for UDEQ involvement in the initiation, development, selection and enforcement of remedial action(s) to be undertaken at the Site, including review of all applicable data as it becomes available and the development of studies, reports, and action plans; and to identify, integrate and assure compliance with applicable or relevant and appropriate requirements (ARARs) to the extent required by CERCLA.

(i) Provide for operation and maintenance of any remedial action(s) selected and implemented pursuant to this Agreement.

(j) Provide for interactive community involvement in the initiation, development and selection of remedial actions to be undertaken at TEAD-N, through proper maintenance of and provision for public access to the Administrative Record, and implementation of the Community Relations Plan provided for in this Agreement.

#### 4. DEFINITIONS

Except as noted below or otherwise explicitly stated, the definitions provided in CERCLA and the NCP shall control the meaning of terms used in this Agreement.

(a) "Additional work" shall mean any new or different work outside the originally agreed upon Scope of this Agreement.

(b) "Agreement" shall refer to this document, all attachments to this document, and all primary documents finalized pursuant to Section 10- Consultation. Such documents, when finalized, shall be incorporated into this Agreement, and shall become fully enforceable parts of this Agreement. A secondary document shall be considered a primary document after any primary document into which the secondary document has been incorporated is finalized pursuant to Section 10- Consultation.

(c) "CERCLA" shall mean the Comprehensive Environmental Response, Compensation and Liability Act, Public Law 96-510, 42 U.S.C. Section 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1980, Public Law 96-499, and any subsequent amendments.

(d) "Community Relations Plan" shall mean a plan prepared by the U.S. Army which shall be based upon community interviews, and other relevant information, specifying the interactive community relations activities that the U.S. Army intends to undertake during remedial response actions.

(e) "Days" shall mean calendar days, unless working days are specified. Any submittal that under the terms of this Agreement would be due on a Saturday, Sunday, or Federal or State of Utah holiday shall be due on the following working day. "Working days" shall include Monday, Tuesday, Wednesday, Thursday, and Friday, except that Federal or State holidays shall not be working days.

(f) "Deadline" shall mean the time limitation applicable to a discrete and significant portion of any submittal specifically established under the terms of this Agreement.

(g) "EPA" shall mean the United States Environmental Protection Agency, its employees and agents.

(h) "National Contingency Plan" or "NCP" shall refer to the regulations contained in 40 C.F.R. Part 300, the National Oil and Hazardous Substances Pollution Contingency Plan, and any subsequent amendments thereto.

(i) "RCRA" shall mean the Resource Conservation and Recovery Act of 1976, Public Law 94-580, 42 U.S.C. Section 6901, et seq., as amended by the Hazardous and Solid Waste Amendments of 1984, Public Law 98-616, and any subsequent amendments.

(j) "Removal" shall have the same meaning as provided in Section 101(23) of CERCLA, 42 U.S.C. Section 9601(23), and "emergency removal", "time critical removal", and "non-time critical removal" shall have the same meanings as provided in the NCP.

(k) "Schedule" shall mean the time limitation established for the completion of remedial actions at operable units established under the terms of this Agreement.

(l) "Site" shall mean the entire 24,732 acre parcel of land known as TEAD-N, Utah, and any area outside the boundaries of the parcel to or under which a release of hazardous substances, pollutants or contaminants has migrated from a source

located on the parcel. For the purposes of obtaining permits, the terms "on-site" and "off-site" shall have the same meanings as provided in the NCP.

(m) "Solid Waste Management Unit" or "SWMU" shall mean any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

(n) "State" shall mean the State of Utah.

(o) "Target dates" shall mean dates by which secondary documents are proposed to be submitted, and shall not be subject to Section 15- Dispute Resolution or Section 17- Stipulated Penalties.

(p) "TEAD-N" or "Tooele Army Depot" shall mean the Tooele Army Depot - North Area, a field activity of the United States Army.

(q) "Timetable" shall mean, collectively, the deadlines established pursuant to this Agreement.

(r) "U.S. Army" shall mean the United States Army, its employees, members and agents, as well as the Department of Defense (DOD), to the extent necessary to effectuate the terms of this Agreement.

(s) "UDEQ" shall mean the Utah Department of Environmental Quality of the State of Utah, its employees and agents.

## 5. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

5.1 The Parties intend to integrate the U.S. Army's CERCLA response obligations and RCRA corrective action obligations which relate to releases of hazardous substances, hazardous wastes, pollutants, or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will achieve compliance with CERCLA, 42 U.S.C. Sections 9601, et seq.; satisfy the corrective action requirements of RCRA Section 3004(u) and (v), 42 U.S.C. Section 6924(u) and (v), for a RCRA permit, and RCRA Section 3008(h), 42 U.S.C. Section 6928(h), for interim status facilities; and meet or exceed all applicable or relevant and appropriate Federal and State laws and regulations, to the extent required by CERCLA Section 121, 42 U.S.C. Section 9621, and applicable State law.

5.2 Based upon the foregoing, the Parties intend that any remedial action selected, implemented and completed under this Agreement will be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA, that is, no further action shall be required. The Parties agree that with respect to releases of hazardous waste covered by this Agreement, RCRA shall be considered an ARAR pursuant to CERCLA Section 121, 42 U.S.C. Section 9621.

5.3 (a) The Parties recognize that the requirement to obtain permits for response actions undertaken pursuant to this Agreement shall be as provided for in CERCLA and the NCP. The activities at the Site may require the issuance of permits under Federal and State laws. This Agreement does not affect the requirements, if any, to obtain such permits.

(b) A permit has been issued by UDEQ to the U.S. Army for certain hazardous waste corrective action and post-closure activities at the Site (Post-Closure Permit; Tooele Army Depot - North Area; Industrial Waste Lagoon, dated 1-7-91, hereafter referred to as the "Post-Closure Permit"). The Parties intend that, pursuant to Section 33 - Public Comment, this Agreement shall be incorporated into the Post-Closure Permit. Through this incorporation, all deliverables submitted to EPA and UDEQ shall be submitted as deliverables pursuant to this Agreement and the Post-Closure Permit; all timetables, deadlines, and schedules as set forth or determined pursuant to this Agreement shall be incorporated in the Post-Closure Permit, and the procedures for evaluation, selection, and implementation of response/corrective actions set forth in this Agreement shall be incorporated in the Post-Closure Permit. EPA and the U.S. Army intend that any judicial review of any condition incorporated into the Post-Closure Permit under this Subsection shall, to the extent review is authorized by law, only be reviewed under the provisions of CERCLA. UDEQ intends that the conditions of the Post-Closure Permit, except for those conditions of the Post-Closure Permit not within the scope of this Agreement as set forth in Section 6 - Scope of Agreement, of this Agreement, shall be enforced consistent with Subsections 16.4 and 16.5 of Section 16 - Enforceability.

## 6. SCOPE OF AGREEMENT

6.1 Except as provided in Subsections 6.2, 6.3, 6.4, and 6.5 of this Section, the Parties agree that the purpose of this Agreement is to set forth and implement a process to identify, investigate, and remediate the releases or threatened releases of all hazardous substances, pollutants or contaminants at or from the Site. Except as provided in Subsections 6.2, 6.3, 6.4, and 6.5 of this Section, the Parties agree that the releases or threatened releases of hazardous substances, pollutants, or

contaminants at or from the Site will be addressed through this Agreement pursuant to CERCLA and, as provided in Section 5- Statutory Compliance/RCRA-CERCLA Integration, RCRA. Attachment 1 to this Agreement lists those presently known source areas and their associated operable units which the Parties agree shall be within the scope of this Agreement. The remediation of those source areas listed in Attachment 1 to this Agreement, including the identification, investigation, and remediation of any releases or threatened releases that occur or have occurred at or from such source areas, shall be within the scope of this Agreement.

6.2 The Parties agree that the obligation of the U.S. Army to identify, investigate, and remediate the release or threatened release of hazardous substances, pollutants, or contaminants from Underground Storage Tanks (USTs) is within the scope of this Agreement. The Parties agree that the obligation of the U.S. Army to identify, investigate, and remediate the release or threatened release of petroleum products, including petroleum products originating from USTs at the Site, which are not commingled and do not threaten to commingle with hazardous substances, pollutants, or contaminants is not within the scope of this Agreement. However, the Parties agree that in the event that releases of petroleum products, including those determined to be originating from USTs, are or threaten to be wholly or partially commingled with releases of hazardous substances, pollutants, or contaminants that are within the scope of this Agreement (see Subsection 6.1 above), such releases shall be within the scope of this Agreement. In such case, the obligation of the U.S. Army to identify, investigate, and remediate such releases shall be pursuant to this Agreement, and in such case any State or Federal laws or regulations pertinent to releases or threatened releases of petroleum products from USTs shall be evaluated as potential ARARs according to the processes set forth in this Agreement.

6.3 The Parties agree that the U.S. Army currently maintains certain environmental permits at the Site, in addition to the permits addressed in Subsections 6.4A and 6.4B below, for ongoing operations. The Parties agree that the obligation of the U.S. Army to obtain and maintain such permits is not within the scope of this Agreement and that such obligations shall be fulfilled pursuant to independent State and Federal programs pertinent thereto. The Parties further agree that the requirement to obtain permits for response actions that are within the scope of this Agreement shall be as set forth in Section 5- Statutory Compliance/RCRA-CERCLA Integration and Section 20- Permits.

6.4A. The Parties recognize that the U.S. Army has interim status authorized by UDEQ for ongoing hazardous waste management activities at certain hazardous waste management units at the

Site. In issuing permits or authorizing interim status for such activities, UDEQ is acting pursuant to the State hazardous waste program authorized under Section 3006 of RCRA. The Parties also recognize that the U.S. Army may apply for certain additional ongoing hazardous waste management permits or for interim status at these or other units. The Parties agree that the obligations of the U.S. Army to obtain, maintain, and comply with permit and interim status requirements for such RCRA ongoing hazardous waste management activities, except the corrective action portions of such permits addressing releases at or from those source areas listed in Attachment 1 to this Agreement, are not within the scope of this Agreement and that such obligations shall, to the extent required by law, be fulfilled pursuant to independent State and Federal programs pertinent thereto.

6.4B. The Parties further recognize that the U.S. Army has an ongoing Post-Closure Permit issued by UDEQ under which it is obligated or will be obligated to perform corrective action and post-closure activities at specific solid waste management units (SWMUs) at the Site. Those SWMUs are listed in Attachment 2 to this Agreement. Newly discovered SWMUs shall also be subject to corrective actions requirements under the Post-Closure Permit, except as provided in Subsection 8.4 of this Agreement. In issuing the Post-Closure Permit requiring corrective action and post-closure activities, UDEQ is acting pursuant to the State hazardous waste program authorized under Section 3006 of RCRA. The Parties agree that the obligations of the U.S. Army to maintain and comply with the corrective action and post-closure requirements of the Post-Closure Permit for the SWMUs specified in Attachment 2 are not within the scope of this Agreement and that such obligations shall, to the extent required by law, be fulfilled pursuant to independent State and Federal programs pertinent thereto.

6.5 The Parties agree that the obligation, if any, of the U.S. Army to identify, investigate, and remediate any releases or threatened releases that occur subsequent to the effective date of this Agreement of hazardous substances, pollutants, or contaminants which: (a) originate solely and exclusively from hazardous waste management activities authorized pursuant to RCRA, the Utah Solid and Hazardous Waste Act, or from a RCRA SWMU specified in Attachment 2 to this Agreement, at the Site, (b) may reasonably be anticipated to remain separate and not become commingled with releases and threatened releases covered by this Agreement, and (c) which are regulated pursuant to RCRA, the Utah Solid and Hazardous Waste Act, or an authority specifically enumerated in the RCRA ongoing hazardous waste management permits (other than CERCLA) shall be pursuant to RCRA, the Utah Solid and Hazardous Waste Act, or a RCRA ongoing hazardous waste management permit. Any subsequent releases and threatened releases meeting these three conditions are not within the scope of this Agreement. Such obligations, if any, shall be fulfilled by the

U.S. Army or other person designated in the RCRA ongoing hazardous waste management permit and pursuant to the Federal and/or State authority designated in RCRA, the Utah Solid and Hazardous Waste Act, or in the RCRA ongoing hazardous waste management permit. Any subsequent releases or threatened releases not meeting the three conditions set forth in this Subsection are within the scope of this Agreement, except as provided in Subsection 8.4 of this Agreement.

6.6 The Parties agree to consult with each other regarding actions taken pertaining to the releases or threatened releases of hazardous substances, pollutants, and contaminants or hazardous wastes or hazardous constituents not within the scope of this Agreement pursuant to Subsections 6.1, 6.2, 6.4, and 6.5. The Parties further agree that in the event a dispute among the Parties arises regarding the scope of this Agreement the procedures set forth in Section 15- Dispute Resolution, shall apply.

6.7 Under this Agreement, the U.S. Army agrees it shall:

(a) Conduct a remedial investigation and feasibility study for each operable unit at the Site;

(b) Prepare a Proposed Plan for Remedial Action and a Record of Decision for each operable unit at the Site;

(c) Prepare design and specification documents needed to implement remedial action for each operable unit;

(d) Implement remedial actions for each operable unit as specified in the ROD for that operable unit;

(e) Satisfy RCRA Corrective Action obligations at the Site;

(f) Reimburse UDEQ for its costs, including ongoing technical assistance pursuant to Section 32- Reimbursement of UDEQ Costs of this Agreement;

(g) Coordinate with the Agency for Toxic Substances and Disease Registry (ATSDR) on preparation of a Site Health Assessment.

6.8 Nothing in this Agreement is intended to affect any jurisdiction the State of Utah may have over activities that are not included within the scope of this Agreement.

## 7. CONCLUSIONS OF LAW

7.1 These conclusions are not to be construed as admissions by any Party, nor are they binding on any Party with respect to

claims or causes brought by persons not a party to this Agreement.

7.2 This Agreement is based upon the placement of Tooele Army Depot, Tooele County, Utah, on the National Priorities List by EPA.

7.3 Tooele Army Depot is a facility under the jurisdiction, custody, or control of the Department of Defense within the meaning of E.O. 12580, 52 Fed. Reg. 2923 (January 29, 1987). The U.S. Army is authorized to act in behalf of the Secretary of Defense for all functions delegated by the President to the Secretary of Defense through E.O. 12580 which are relevant to this Agreement.

7.4 Tooele Army Depot is a Federal facility to which CERCLA Section 120, 42 U.S.C. Section 9620, and Section 211 of SARA, 10 U.S.C. Section 2701, et seq. (the "DERP"), apply.

7.5 The U.S. Army is the authorized delegate of the President under E.O. 12580 for receipt of notification by the State of its ARARs, as required by CERCLA Section 121(d)(2)(A)(ii), 42 U.S.C. Section 9621(d)(2)(A)(ii).

7.6 The authority of the U.S. Army to exercise the delegated removal authority of the President pursuant to CERCLA Section 104, 42 U.S.C. Section 9604 is not altered by this Agreement.

7.7 The actions to be taken pursuant to this Agreement are reasonable and necessary to protect the public health, welfare, or the environment.

7.8 There are areas within the boundaries of the Federal facility, as defined in 42 U.S.C. Section 9601(9), where hazardous substances, as defined in 42 U.S.C. Section 9601(14) have been deposited, stored, placed, or otherwise come to be located.

7.9 There have been "releases" as defined in 42 U.S.C. Section 9601(22), of hazardous substances, pollutants or contaminants, as defined in 42 U.S.C. Section 9601(33), at or from the Federal facility into the environment.

7.10 With respect to these releases, the U.S. Army is an owner and/or operator as defined at 42 U.S.C. Section 9601(20).

7.11 Included as Attachment 3 to this Agreement is a Statement of Facts concerning TEAD-N.



7.12 Included as Attachment 4 to this Agreement is a map showing sources of suspected contamination based on information available at the time of the signing of this Agreement.

## 8. WORK TO BE PERFORMED

8.1 The Parties agree to perform the tasks, obligations and responsibilities described in this Section in accordance with CERCLA and CERCLA guidance; the NCP; pertinent provisions of RCRA, RCRA guidance; E.O. 12580; the Statement of Work attached hereto as Attachment 5; pertinent State laws and regulations; and all terms and conditions of this Agreement including documents prepared and incorporated in accordance with Section 10-Consultation.

8.2 The U.S. Army agrees to undertake, seek adequate funding for, fully implement and report on the following tasks for each operable unit described in Attachment 1 to this Agreement with participation of the Parties as set forth in this Agreement:

- (a) Remedial Investigations of the Site;
- (b) Feasibility Studies for the Site;
- (c) All remedial design and response actions at the Site;
- (d) Operation and maintenance of response actions at the Site; and
- (e) Funding State support services (see Section 32).

8.3 The Parties agree to use their best efforts to expedite the initiation of response actions for the Site.

8.4 To enable the U.S. Army to more efficiently implement response actions at the Site, the Parties agree that discrete areas within the Site have been designated as operable units. Response actions for those operable units described in Attachment 1 of this Agreement shall be carried out in accordance with this Agreement. The Parties contemplate that subsequent to the execution of this Agreement, additional solid waste management units, releases, or areas of surface or subsurface contamination or pollution may be identified. The U.S. Army agrees that subject to the consent of all Parties, any such areas shall be designated as additional operable units within the scope of and subject to the provisions of this Agreement. The Parties agree to promptly resolve such issues concerning scope. Amendments to the Statement of Work for newly identified operable units will be proposed by the U.S. Army in accordance with Section 10-Consultation.

8.5 Upon request, EPA and UDEQ agree to provide any Party with guidance or reasonable assistance in obtaining guidance relevant to the implementation of this Agreement.

## 9. TECHNICAL REVIEW COMMITTEE

The Parties shall participate in a Technical Review Committee composed of members from the U.S. Army, EPA, UDEQ, local government, and a public representative. Where appropriate, the Parties will inform the Committee about the technical actions to be taken pursuant to this Agreement. The Committee shall normally hold quarterly meetings unless the Parties agree to meet more or less frequently.

## 10. CONSULTATION: Review and Comment Process for Draft and Final Documents

10.1 Applicability: The provisions of this Section establish the procedures that shall be used by the Parties to provide each other with appropriate technical support, notice, review, comment, and response to comments regarding RI/FS and RD/RA documents, specified herein as either primary or secondary documents. In accordance with CERCLA Section 120, 42 U.S.C. Section 9620, and 10 U.S.C. Section 2705, the U.S. Army will normally be responsible for issuing primary and secondary documents to EPA and UDEQ. As of the effective date of this Agreement, all draft, draft final, and final reports for any deliverable document identified herein shall be prepared, distributed and subject to dispute in accordance with Subsections 10.2 through 10.10 below. The designation of a document as "draft", "draft final", or "final" is solely for purposes of consultation with EPA and UDEQ in accordance with this Section. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as "final", to the public for review and comment as appropriate and required by law.

### 10.2 General Process for RI/FS and RD/RA documents

(a) Primary documents include those reports that are major, discrete, portions of RI/FS and/or RD/RA activities. Primary documents are initially issued by the U.S. Army in draft subject to review and comment by EPA and UDEQ. Following receipt of comments on a particular draft primary document, the U.S. Army will respond to the comments received and issue a draft final primary document subject to dispute resolution. The draft final primary document shall become the final primary document forty-five (45) days after the issuance of a draft final document if dispute resolution is not invoked or as modified by decision of the dispute resolution process.

(b) Secondary documents include those reports that are discrete portions of the primary documents and are typically input or feeder documents. Secondary documents are issued by the U.S. Army in draft subject to review and comment by EPA and UDEQ. The U.S. Army will respond in writing to each of the comments received indicating whether and how the U.S. Army intends to address the comment in the corresponding primary document. The draft secondary document may be finalized in the context of the corresponding primary document.

(c) The following primary documents will also be submitted as part of a subsequent primary document:

Memorandum on Remedial Action Objectives (for each operable unit)

Sampling and Data Results (for each operable unit)

Baseline Risk Assessment (for each operable unit)

Memorandum on Detailed Analysis of Alternatives (for each operable unit)

Preliminary Design Stage Report- 30% Completion Stage (for each operable unit)

Dispute resolution for these documents shall be available only when the document is first issued in draft final form, except as provided in paragraph (d), which follows.

(d) EPA or UDEQ may initiate dispute resolution under this Agreement for a dispute involving a portion of a draft final primary document that was previously submitted as a separate final primary document under paragraph (c) of this Subsection, if the issue raised was not previously addressed in dispute resolution.

(e) Subject to the procedures for review, comment, and finalization of documents set forth in this Section, and in accordance with the deadlines, timetables, and schedules established under this Agreement, primary and secondary documents required to be submitted pursuant to this Section for each operable unit may be submitted such that more than one operable unit is addressed in any such document, as may be appropriate for the response actions proposed.

### 10.3 Primary Reports

(a) The U.S. Army shall complete and transmit draft reports of the following primary documents for each operable unit and for the final remedy to EPA and UDEQ, for review and comment in accordance with the provisions of this Section:

Community Relations Plan (for all NPL Site activities)

Remedial Investigation Work Plan (for each operable unit), including Data Quality Objectives, Sampling and Analysis Plan (SAP), with SAP Components: Quality Assurance Project Plan and Field Sampling Plan, and Health and Safety Plan

Memorandum on Remedial Action Objectives (for each operable unit)

Sampling and Data Results (for each operable unit)

Baseline Risk Assessment (for each operable unit)

Remedial Investigation Report-Includes Risk Assessment and Ground Water Assessment (for each operable unit)

Memorandum on Detailed Analysis of Alternatives (for each operable unit)

Feasibility Study Report (for each operable unit)

Proposed Plan (for each operable unit)

Record of Decision (for each operable unit)

Remedial Design Work Plan (for each operable unit)

Remedial Action Work Plan (for each operable unit)

Preliminary Design Stage Document- 30% Completion Stage (for each operable unit)

Pre-final Remedial Design Document - 95% Completion Stage (for each operable unit)

Construction Quality Assurance/Quality Control Plan (for each operable unit)

Contingency Plan (for each operable unit)

Project Closeout Report (for each operable unit)

(b) Except as provided in Subsection 10.2 above, only draft final reports for primary documents shall be subject to dispute resolution. The U.S. Army shall complete and transmit draft primary documents in accordance with the timetable and deadlines established in Attachment 5 and under Section 11-Deadlines.

#### 10.4 Secondary Documents

(a) The U.S. Army shall complete and transmit draft reports of the following secondary documents to EPA and UDEQ for review and comment:

Assembled Alternatives Screening Memorandum (for each operable unit)

Responsiveness Summary (for each operable unit)

Intermediate Remedial Design Document- 60% Completion stage (for each operable unit)

Final Design Document- 100% Completion stage ("record drawings," for each operable unit)

(b) Although EPA and UDEQ may comment on the draft reports for the secondary documents listed above, such documents shall not be subject to dispute resolution except as provided by Subsection 10.2 above. Target dates for the completion and transmission of draft secondary reports shall be established by Attachment 5 or pursuant to Section 11- Deadlines. The Project Managers also may agree upon additional secondary documents that are within the scope of the listed primary reports.

#### 10.5 Meetings of the Project Managers.

The Project Managers shall meet in Utah in person approximately every ninety (90) days, except as otherwise agreed by the Project Managers, to review and discuss the progress of work being performed at the Site, including progress on the primary and secondary documents. Prior to preparing any draft report specified in Subsections 10.3 and 10.4 above, the Project Managers shall meet in an effort to reach a common understanding on the contents of the draft report.

#### 10.6 Identification and Determination of Potential ARARs

(a) For those primary reports or secondary documents for which ARAR determinations are appropriate, prior to the issuance of a draft report, the Project Managers shall meet to identify and propose, to the best of their ability, all potential ARARs pertinent to the report being addressed, including any permitting requirements which may be a source of ARARs. In a timely manner, UDEQ shall identify potential State ARARs as required by CERCLA Section 121(d)(2)(A)(ii), 42 U.S.C. Section 9621(d)(2)(A)(ii), which are pertinent to those activities for which it is responsible and the report being addressed. Draft ARAR determinations shall be prepared by the U.S. Army in accordance with CERCLA Section 121(d)(2), 42 U.S.C. Section 9621(d)(2), the NCP and pertinent guidance issued by EPA.

(b) UDEQ will contact those State and local governmental agencies which are a potential source of proposed ARARs. The proposed ARARs obtained shall be submitted to the U.S. Army, along with a list of those agencies which failed to respond to UDEQ's solicitation of proposed ARARs. The U.S. Army will contact those agencies which failed to respond and again solicit their input.

(c) In identifying potential ARARs, the Parties recognize that actual ARARs can be identified only on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants and contaminants at the Site, the particular actions associated with a proposed remedy and the characteristics of the Site. The Parties recognize that ARAR determination is necessarily an iterative process and that potential ARARs must be identified and discussed among the Parties in a timely manner, and must be reexamined throughout the RI/FS process until a ROD is issued.

#### 10.7 Review and Comment on Draft Reports

(a) The U.S. Army shall complete and transmit each draft primary report to EPA and UDEQ on or before the corresponding deadline established for the issuance of the report. The U.S. Army shall complete and transmit the draft secondary documents in accordance with the target dates established for the issuance of such reports.

(b) Unless the Parties mutually agree to another time period, all draft reports shall be subject to a forty-five (45) day period for review and comment. Review of any document by EPA and UDEQ may concern all aspects of the report (including completeness) and should include, but is not limited to, technical evaluation of any aspect of the document, and consistency with CERCLA, the NCP, applicable Utah law, and any pertinent guidance or policy. When requested by any Project Manager, the U.S. Army shall make an oral presentation of the report to the Parties at the next scheduled meeting of the Project Managers following transmittal of the draft report. Comments by EPA and UDEQ shall be provided with adequate specificity so that the U.S. Army may respond to the comment and, if necessary, make corrections to the draft report. Comments shall refer to any pertinent sources of authority or references upon which the comments are based and, upon request of the U.S. Army, EPA or UDEQ, as appropriate, shall provide a copy of the cited authority or reference. EPA or UDEQ may extend the forty-five (45) day comment period for an additional thirty (30) days by written notice to the U.S. Army prior to the expiration of the forty-five (45) day period. On or before the close of the comment period, EPA and UDEQ shall transmit their written comments to the U.S. Army. In appropriate circumstances, this

time period may be further extended in accordance with Section 12- Extensions.

(c) Representatives of the U.S. Army shall make themselves readily available to EPA and UDEQ during the comment period for purposes of informally responding to questions and comments on draft reports. Oral comments made during such discussions need not be the subject of a written response by the U.S. Army.

(d) In commenting on a draft report which contains a proposed ARAR determination, EPA and UDEQ shall include a reasoned statement of whether it objects to any portion of the proposed ARAR determination. To the extent that EPA or UDEQ does object, it shall explain the basis for the objection in detail and shall identify any ARARs which it believes were not properly addressed in the proposed ARAR determination.

(e) Following the close of the comment period for a draft report, the U.S. Army will give full consideration to all written comments. Within fifteen (15) days following the close of the comment period on a draft secondary report or draft primary report, if requested by any Project Manager, the Parties will meet to discuss all comments received. On a draft secondary report, the U.S. Army shall transmit, within thirty (30) days of the close of the comment period, to the EPA and UDEQ its written response to the comments received. On a draft primary report, the U.S. Army shall, within forty-five (45) days of the close of the comment period, transmit to EPA and UDEQ a draft final primary report, which shall include the U.S. Army's response to all written comments received within the comment period. While the resulting draft final report shall be the responsibility of the U.S. Army, it shall be the product of consensus of the Parties to the maximum extent possible.

(f) The U.S. Army may extend the forty-five (45) day period either for responding to comments on a draft report or for issuing the draft final primary report for an additional thirty (30) days by providing written notice to EPA and UDEQ. In appropriate circumstances, this time period may be further extended in accordance with Section 12- Extensions.

#### 10.8 Dispute Resolution for Draft Final Primary Documents

(a) Dispute resolution shall be available to the Parties on draft final primary reports as set forth in the provisions of this Agreement on Dispute Resolution.

(b) When dispute resolution is invoked on a draft final primary report, work may be stopped in accordance with the procedures contained in Section 15- Dispute Resolution.

## 10.9 Finalization of Reports

The draft final primary report shall serve as the final primary report if no party invokes dispute resolution regarding the document or, if invoked, at completion of the dispute resolution process if the U.S. Army's position is sustained. If the U.S. Army's determination is not sustained in the dispute resolution process, the U.S. Army shall prepare, within not more than thirty-five (35) days, a revision of the draft final report which conforms to the results of dispute resolution. This period may be extended where appropriate in accordance with Section 12-Extensions. Final reports shall be incorporated into, and shall become fully enforceable parts of this Agreement.

## 10.10 Subsequent Modification to Final Reports

Following the finalization of any primary report pursuant to Subsection 10.9 above, any Party may seek to modify the report including seeking additional field work, pilot studies, computer modeling or other supporting technical work, only as provided in paragraphs (a) and (b).

(a) Any Party may seek to modify a report after finalization if it determines, based on new information (i.e., information that becomes available, or conditions that become known, after the report was finalized) that the requested modification is necessary. Any Party may seek such a modification by submitting a concise written request to the Project Managers of the other Parties. The request shall specify the nature of the requested modification and how the request is based on new information.

(b) In the event that a consensus is not reached by the Project Managers on the need for a modification, any Party may invoke dispute resolution to determine if such modification shall be allowed. Modification of a report shall be required only upon a showing that:

(1) The modification is based on significant new information; and

(2) It could be of significant assistance in evaluating the impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

(c) Nothing in this Section shall alter EPA's or UDEQ's ability to request additional work which was not within the scope of this Agreement. The U.S. Army's obligation to perform such work must be established by either a modification of a report or document or by amendments to this Agreement.



## 10.11 Consultation between EPA and UDEQ

EPA and UDEQ agree to consult with each other before making determinations under this Agreement. This consultation shall include, but not be limited to: reviewing the other Party's comments and recommendations; advising the other Party of proposed determinations; if requested, giving in writing reasons for disagreeing with any comments or recommendations by the other Party; and, if requested, meeting with the other Party to resolve differences before announcing a determination.

## 11. DEADLINES

11.1 The deadlines for primary documents, and target dates for secondary documents agreed upon before the effective date of this Agreement are set forth in Attachment 5 of this Agreement.

11.2 Within twenty-one (21) days of issuance of the Record of Decision for each operable unit, the U.S. Army will submit the Remedial Design Work Plan for that operable unit and within the same twenty-one (21) day period shall propose deadlines for submittal of the following draft primary documents:

- (a) Preliminary Design Stage Report- 30% Completion Stage
- (b) Pre-final Remedial Design Document- 95% Completion Stage
- (c) Construction Quality Assurance/ Quality Control Plan
- (d) Contingency Plan
- (e) Remedial Action Work Plan
- (f) Project Closeout Report

Within fifteen (15) days of receipt, EPA and UDEQ shall review and provide comments to the U.S. Army regarding the proposed deadlines. Within fifteen (15) days following receipt of the comments, the U.S. Army shall, as appropriate, make revisions and reissue the proposal. The Parties shall meet as necessary and finalize the proposed deadlines. All agreed-upon deadlines shall be incorporated into the appropriate work plans. If the Parties fail to agree within fifteen (15) days of the reissued proposed deadlines, the matter shall immediately be submitted for dispute resolution pursuant to Section 15- Dispute Resolution. The final deadlines established pursuant to this Subsection shall be published by EPA, in conjunction with UDEQ, and, upon finalization, shall become an enforceable part of this Agreement.

11.3 Within twenty-one (21) days of issuance of the Record of Decision for each operable unit, the U.S. Army shall propose

target dates for the submittal of the following draft secondary documents:

- (a) Intermediate Remedial Design- 60% Completion stage
- (b) Final Design Document- 100% Completion stage ("record drawings")

Within fifteen (15) days of receipt, EPA and UDEQ shall review and provide comments to the U.S. Army regarding the proposed target dates. Within fifteen (15) days after receipt of the comments, as appropriate, the U.S. Army shall revise and reissue the proposal. The Parties shall meet as necessary to discuss and finalize the proposed target dates. All agreed-upon target dates shall be incorporated into the appropriate work plans.

11.4 In accordance with the procedures set forth in Section 8- Work to Be Performed, of this Agreement, for any operable unit not identified by the Parties as of the effective date of this Agreement, the U.S. Army shall propose deadlines for all documents listed in Subsection 10.3 and target dates for those in 10.4 within twenty-one (21) days of agreement by the Parties on the designation of such operable unit. These deadlines shall be proposed, finalized and published using the same procedures set forth in 11.2, above and target dates established as provided in 11.3 above.

11.5 The deadlines set forth in this Section, or to be established as set forth in this Section, may be extended pursuant to Section 12- Extensions. The Parties recognize that one possible basis for extension of the deadlines for completion of the RI/FS Reports is the identification of significant new Site conditions during the performance of the RI.

## 12. EXTENSIONS

12.1 Timetables, deadlines and schedules shall be extended upon receipt of a timely request for extension and when good cause exists for the requested extension. Any request for extension by a Party shall be submitted to the other Parties in writing and shall specify:

- (a) The timetable, deadline or schedule that is sought to be extended;
- (b) The length of the extension sought;
- (c) The good cause(s) for the extension; and
- (d) The extent to which any related timetable and deadline or schedule would be affected if the extension were granted.

12.2 Good cause exists for an extension when sought in regard to:

- (a) An event of Force Majeure;
- (b) A delay caused by another Party's failure to meet any requirement of this Agreement;
- (c) A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;
- (d) A delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and deadline or schedule;
- (e) Any work stoppage within the scope of Section 14-Emergencies and Removals, provided neither the emergency nor the delay arises due to the fault or negligence of the party seeking the extension; or
- (f) Any other event or series of events mutually agreed to by the Parties as constituting good cause.

12.3 Absent agreement of the Parties with respect to the existence of good cause, a Party may seek and obtain a determination through the dispute resolution process that good cause exists.

12.4 Within seven (7) days of receipt of a request for an extension of a timetable, deadline or schedule, each receiving Party shall advise the requesting Party in writing of the receiving Party's position on the request. Any failure by a receiving Party to respond within the 7-day period shall be deemed to constitute concurrence with the request for extension. If a receiving Party does not concur in the requested extension, it shall include in its statement of nonconcurrence an explanation of the basis for its position.

12.5 If there is consensus among the Parties that the requested extension is warranted, the U.S. Army shall extend the affected timetable and deadline or schedule accordingly. If there is no consensus among the Parties as to whether all or part of the requested extension is warranted, the timetable and deadline or schedule shall not be extended except in accordance with a determination resulting from the dispute resolution process.

12.6 Within seven (7) days of receipt of a statement of nonconcurrence with the requested extension, the requesting Party may invoke dispute resolution.

12.7 A timely and good faith request by the U.S. Army for an extension shall toll any assessment of stipulated penalties or application for judicial enforcement of the affected timetable and deadline or schedule until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed and may accrue from the date of the original timetable, deadline or schedule. Following the grant of an extension, an assessment of stipulated penalties or an application for judicial enforcement may be sought only to compel compliance with the timetable and deadline or schedule as most recently extended.

### 13. FORCE MAJEURE

A Force Majeure shall mean any event arising from causes beyond the control of a Party requesting an extension under Section 12- Extensions, that causes a delay in or prevents the performance of any obligation under this Agreement, provided that neither the event nor the delay could have been prevented or overcome by the Party's due diligence. Force Majeure events shall include, but not be limited to: acts of God; fire; war; insurrection; civil disturbance; explosion; breakage or accident to machinery, equipment or lines of pipe; adverse weather conditions; unusual delay in transportation; inability to obtain any necessary authorizations, approvals, permits, or licenses due to action or inaction of any Governmental agency or authority other than the U.S. Army; inability to obtain, at reasonable cost, any necessary authorizations, approvals, permits or licenses due to action or inaction by any local government agency or authority; abnormal delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, provided that the events arise from causes beyond the control of the Party, and that neither the event nor the delay could have been prevented or overcome by the Party's due diligence. In recognition of the unique nature of this Agreement, in relation to the State's RCRA authority, the failure to obtain any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or authority other than the Army shall not be claimed as a Force Majeure event for any action not directly subject of, or not directly affected by, the action or inaction of that governmental agency or authority, or for any action subject to or directly affected by said authorizations, approvals, permits, or licenses where such action is not materially inconsistent with the requirements of this Agreement. A Force Majeure shall also include any strike or other labor dispute, whether or not within the control of the Party affected thereby, provided that neither the event nor the delay could have been prevented or overcome by the Party's due diligence. A Force Majeure shall not include increased costs or expenses of Response

Actions, whether or not anticipated at the time such Response Actions were initiated.

#### 14. EMERGENCIES AND REMOVALS

##### 14.1 Discovery and Notification

If any Party discovers or becomes aware of an emergency at or near the Site, which is related to or may affect the work performed under this Agreement, that Party shall immediately orally notify all other Parties. If the emergency arises from activities conducted pursuant to this Agreement, the U.S. Army shall then take immediate action to notify the appropriate State and local agencies and affected members of the public.

##### 14.2 Work Stoppage

In the event any Party determines that activities conducted pursuant to this Agreement will cause or otherwise be threatened by a situation described in Subsection 14.1, the Party may propose the termination of such activities. If the Parties mutually agree, the activities shall be stopped for such period of time as required to abate the danger. In the absence of mutual agreement, the activities shall be stopped in accordance with the proposal, and the matter shall be immediately referred to the EPA Hazardous Waste Management Division Director for a work stoppage determination in accordance with Subsection 15.9.

##### 14.3 Removal Actions

(a) The provisions of this Section shall apply to all removal actions as defined in CERCLA Section 101(23), 42 U.S.C. 9601(23).

(b) Any removal actions conducted at the Site shall be conducted in a manner consistent with this Agreement, CERCLA, the NCP and Executive Order 12580.

(c) Nothing in this Agreement shall alter the U.S. Army's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. Section 9604.

(d) Nothing in this Agreement shall alter any authority UDEQ or EPA may have with respect to removal actions at the Site.

(e) All reviews conducted by EPA and UDEQ pursuant to 10 U.S.C. Section 2705(b)(2) will be expedited to the maximum extent practicable.

#### 14.4 Notice and Opportunity to Comment

(a) The U.S. Army shall provide the other Parties with timely notice and the opportunity to review and comment upon any proposed removal action for the Site, in accordance with 10 U.S.C. Section 2705(a) and (b). Under 10 U.S.C. Section 2705, the requirement for prior review and comment does not apply if the action is an emergency removal taken because of imminent and substantial endangerment to human health or the environment and consultation would be impracticable. The U.S. Army agrees to provide the information described below.

(b) For emergency removal actions, the U.S. Army shall provide EPA and UDEQ with notice in accordance with Subsection 14.1. Such notification shall, except in the case of extreme emergencies, include adequate information concerning the Site background, threat to the public health and welfare or the environment (including the need for response), proposed actions and costs, comparison of possible alternatives, means of transportation of any hazardous substances off-site, and proposed manner of disposal, expected change in the situation should no action be taken or should action be delayed (including associated environmental impacts), any important policy issues and recommendations of the U.S. Army Project Manager. Within thirty (30) days of completion of the emergency removal action, the U.S. Army will furnish EPA and UDEQ with an Action Memorandum addressing the information provided in the notification, and any other information required pursuant to CERCLA and the NCP, and in accordance with pertinent EPA guidance for such actions.

(c) For other removal actions (both time critical and non-time critical), the U.S. Army will provide EPA and UDEQ with any information required by CERCLA, the NCP, and pertinent EPA guidance, such as the Action Memorandum guidance and the Engineering Evaluation/Cost Analysis guidance (in the case of non-time-critical removals). Such information shall be furnished at least thirty (30) days before the response action is to begin.

(d) All activities related to ongoing removal actions shall be reported by the U.S. Army in the progress reports as described in Section 19- Project Managers.

(e) In conducting any removal action at the Site, the U.S. Army will follow all community involvement requirements for such removal actions as set forth in CERCLA, the NCP, and appropriate EPA guidance.

14.5 Any dispute among the Parties as to whether a proposed non-emergency removal action (time critical or non-time critical), as defined by the NCP and this Agreement, is properly considered a removal action, or as to the consistency of such a removal action with any final remedial action, or whether such

proposed removal action should be considered a remedial action, shall be subject to Section 15- Dispute Resolution. Such dispute may be brought directly to the Dispute Resolution Committee (DRC) or the Senior Executive Committee (SEC) at any Party's request.

14.6 Good cause exists for an extension under Section 12- Extensions, when sought in regard to any work stoppage within the scope of this Section, provided neither the emergency nor the delay arises due to the fault or negligence of the party seeking the extension.

## 15. DISPUTE RESOLUTION

15.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply. Any party may invoke this dispute resolution procedure. All Parties to this Agreement shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this Section shall be implemented to resolve a dispute.

15.2 Within forty-five (45) days after: (a) the issuance of a draft final primary document pursuant to Section 10- Consultation, or (b) any action or refusal to take action which leads to or generates a dispute, the disputing Party shall submit to the Dispute Resolution Committee (DRC) a written statement of dispute setting forth the nature of the dispute, the work affected by the dispute, the disputing Party's position with respect to the dispute and the information the disputing Party is relying upon to support its position.

15.3 Prior to any Party's issuance of a written statement of a dispute to the DRC, the disputing Party shall engage the other Party or Parties in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period, the Project Managers shall meet as many times as necessary to discuss and attempt resolution of the dispute.

15.4 The Dispute Resolution Committee will serve as a forum for resolution of dispute for which agreement has not been reached through informal dispute resolution. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level Senior Executive Service (SES) or equivalent or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this Agreement. The EPA representative on the DRC is the Hazardous Waste Management Division Director of EPA's Region VIII. The U.S. Army's designated member is the Commander, Tooele Army Depot. The UDEQ representative is the Director, Division of

Environmental Response and Remediation (UDERR) or other delegated State official. Written notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other Parties pursuant to the procedures in Section 36- Notice to the Parties.

15.5 Following elevation of a dispute to the DRC, the DRC shall have twenty-one (21) days to unanimously resolve the dispute and issue a written decision signed by all Parties. If the DRC is unable to unanimously resolve the dispute within this twenty-one (21) day period, the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC), for resolution, within seven (7) days after the close of the twenty-one (21) day resolution period.

15.6 The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. The EPA representative on the SEC is the Regional Administrator of EPA Region VIII. The U.S. Army representative on the SEC is the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health. The UDEQ representative on the SEC is the Executive Director, Department of Environmental Quality. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a written decision signed by all Parties. If unanimous resolution of the dispute is not reached within twenty-one (21) days of elevation to the SEC, EPA's Regional Administrator shall issue a written position on the dispute. The U.S. Army or UDEQ may, within fourteen (14) days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of EPA for resolution in accordance with all applicable laws and procedures. In the event that a party elects not to elevate the dispute to the Administrator within the designated fourteen (14) day elevation period, the party shall be deemed to have agreed with the Regional Administrator's written position with respect to the dispute.

15.7 Upon elevation of a dispute to the Administrator of EPA pursuant to Subsection 15.6 above, the Administrator will review and resolve the dispute within twenty-one (21) days. Upon request, and prior to resolving the dispute, the EPA Administrator shall meet and confer with the U.S. Army Secretariat's Representative and the UDEQ Executive Director or his designee to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the U.S. Army and UDEQ with a written final decision setting forth resolution of the dispute. The duties of the Administrator set forth in this Section shall not be delegated.

15.8 The pendency of any dispute under this Section shall not affect any Party's responsibility for timely performance of the work required by this Agreement, except that the time period



for completion of work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Agreement which are not affected by the dispute shall continue and be completed in accordance with the applicable timetable, deadline or schedule.

15.9 When dispute resolution is in progress, work affected by the dispute will immediately be discontinued if the Hazardous Waste Management Division (HWMD) Director for EPA Region VIII requests, in writing, that work related to the dispute be stopped because, in EPA's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. The UDEQ may request the EPA HWMD Director to order work stopped for the reasons set forth above. To the extent possible, the Party seeking work stoppage shall consult with the other Parties prior to initiating a work stoppage request. After work stoppage, if a Party believes that the work stoppage is inappropriate or may have potential significant adverse impacts, the Party may meet with the other Parties to discuss the work stoppage. Following this meeting, and further considerations of this issue the EPA (HWMD) Director will issue, in writing, a final decision with respect to the work stoppage. This final decision may immediately be subject to formal dispute resolution. Such dispute may be brought directly to either the DRC or the SEC, at the discretion of the Party requesting dispute resolution.

15.10 Within thirty-five (35) days of resolution of a dispute pursuant to the procedures specified in this Section, the U.S. Army shall incorporate the resolution and final determination into the appropriate document, plan, schedule or procedures and proceed to implement this Agreement according to the amended document, plan, schedule or procedures.

15.11 Resolution of a dispute pursuant to this Section of the Agreement constitutes a final resolution of any dispute arising under this Agreement. Subject to the reservations of rights provided elsewhere in this Agreement, all Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of this Agreement.

## 16. ENFORCEABILITY

16.1 The Parties agree that:

(a) Upon the effective date of this Agreement, any standard, regulation, condition, requirement or order which has become effective under CERCLA and is incorporated into this

Agreement is enforceable by any person pursuant to CERCLA Section 310, and any violation of such standard, regulation, condition, requirement or order shall be subject to civil penalties under CERCLA Sections 310(c) and 109;

(b) All timetables or deadlines (not including target dates) associated with RIs and FSSs shall be enforceable by any person pursuant to CERCLA Section 310, and any violation of such timetables or deadlines shall be subject to civil penalties under CERCLA Sections 310(c) and 109;

(c) All terms and conditions of this Agreement which relate to remedial actions, including corresponding timetables, deadlines or schedules (not including target dates), and all work associated with remedial actions, shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such terms or conditions shall be subject to civil penalties under CERCLA Sections 310(c) and 109; and

(d) Any final resolution of a dispute pursuant to Section 15- Dispute Resolution of this Agreement which establishes a term, condition, timetable, deadline or schedule (not including target dates) shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such term, condition, timetable, deadline or schedule shall be subject to civil penalties under CERCLA Sections 310(c) and 109.

16.2 Nothing in this Agreement shall be construed as a restriction or waiver of any rights the EPA or the State may have under CERCLA, including but not limited to any rights under Sections 113 and 310, 42 U.S.C. Section 9613 and 9659. The U.S. Army does not waive any rights it may have, including but not limited to, CERCLA Section 120, SARA Section 211 and Executive Order 12580.

16.3 Upon issuance or modification of a hazardous waste permit by UDEQ to incorporate this Agreement, all terms and conditions of this Agreement become enforceable by UDEQ as terms and conditions of that permit, except as otherwise provided by this Agreement.

16.4 Consistent with this Agreement, UDEQ agrees to exhaust fully the remedies provided under Section 10- Consultation, Section 15- Dispute Resolution, and Subsection 32.8 of Section 32- Reimbursement of UDEQ Costs, prior to taking any other enforcement action it may have the authority to exercise relative to the NPL site.

16.5 The Parties agree to exhaust their rights under Section 15- Dispute Resolution, prior to exercising any rights to judicial review that they may have.

16.6 The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

16.7 Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or work where review is barred by any provision of CERCLA including CERCLA Section 113(h).

## 17. STIPULATED PENALTIES

17.1 In the event the U.S. Army fails to submit a primary document listed in Section 10- Consultation, to EPA or UDEQ, pursuant to the appropriate timetable or deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to a remedial action, EPA, after consultation with UDEQ, may assess a stipulated penalty against the U.S. Army. A stipulated penalty may be assessed in an amount not to exceed \$2,500 for the first day and \$416.67 for each day thereafter for the first week and \$5,000 for the 8th day and \$833.34 for each additional day thereafter for which a failure set forth in this Subsection occurs.

17.2 Upon determining that the U.S. Army has failed in a manner set forth in Subsection 17.1, EPA shall so notify the U.S. Army in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, the U.S. Army shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. The U.S. Army shall not be liable for the stipulated penalty assessed by EPA if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

17.3 The annual reports required by CERCLA Section 120(e)(5), 42 U.S.C. Section 9620(e)(5), shall include, with respect to each final assessment of a stipulated penalty against the U.S. Army under this Agreement, each of the following:

- (a) The Federal facility responsible for the failure;
- (b) A statement of the facts and circumstances giving rise to the failure;
- (c) A statement of any administrative or other corrective action taken at the relevant Federal facility, or a statement of why such measures were determined to be inappropriate;

(d) A statement of any additional action taken by or at the Federal facility to prevent recurrence of the same type of failure; and

(e) The total dollar amount of the stipulated penalty assessed for the particular failure.

17.4 Stipulated penalties assessed pursuant to this Section shall be payable to the Hazardous Substance Superfund only in the manner and to the extent expressly provided for in acts authorizing funds for, and appropriations to, the DOD.

17.5 In no event shall this Section give rise to a stipulated penalty in excess of the amount set forth in CERCLA Section 109, 42 U.S.C. Section 9609.

17.6 This Section shall not affect the U.S. Army's ability to obtain an extension of a timetable, deadline or schedule pursuant to Section 12- Extensions.

17.7 Nothing in this Agreement shall be construed to render any officer or employee of the U.S. Army personally liable for the payment of any stipulated penalty assessed pursuant to this Agreement.

## 18. FUNDING

18.1 It is the expectation of the Parties to this Agreement that all obligations of the U.S. Army arising under this Agreement will be fully funded. The U.S. Army agrees to seek sufficient funding through the DOD budgetary process to fulfill its obligations including payment of stipulated penalties, if necessary, under this Agreement.

18.2 In accordance with CERCLA Section 120 (e)(5)(B), 42 U.S.C. Section 9620 (e)(5)(B), the U.S. Army shall include, in its submission to the Department of Defense's Annual Report to Congress, the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

18.3 Any requirement for the payment or obligation of funds, including stipulated penalties, by the U.S. Army established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

18.4 If appropriated funds are not available to fulfill the U.S. Army's obligations under this Agreement, EPA reserves the right to initiate an action against any other person, or to take any response action, which would be appropriate absent this Agreement.

18.5 Funds authorized and appropriated annually by Congress under the "Environmental Restoration, Defense" appropriation in the Department of Defense Appropriation Act and allocated by the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health will be the source of funds for activities required by this Agreement consistent with Section 211 of CERCLA, 10 U.S.C. Chapter 160. However, should the Environmental Restoration, Defense appropriation be inadequate in any year to meet the total the U.S. Army CERCLA implementation requirements, the DOD shall employ and the U.S. Army shall follow a standardized DOD prioritization process which allocates that year's appropriations in a manner which maximizes the protection of human health and the environment. A standardized DOD prioritization model shall be developed and utilized with the assistance of EPA and the states.

18.6 If the U.S. Army shall have made timely request for funds pursuant to Subsection 18.1 above, and insufficient appropriated funds are made available, the resultant delay will be treated as a Force Majeure.

## 19. PROJECT MANAGERS

19.1 For the purpose of overseeing the implementation of this Agreement, the initial and alternate Project Managers are listed in Subsection 36.2 of this Agreement. The Project Managers shall be responsible on a daily basis for assuring proper implementation of the RI/FS and the RD/RA in accordance with the terms of the Agreement. In addition to the formal notice provisions set forth in Section 36-Notice to the Parties, to the maximum extent possible, communications among the U.S. Army, EPA, and UDEQ on all documents, including reports, comments, and other correspondence concerning the activities performed pursuant to this Agreement, shall be directed through the Project Managers.

19.2 The U.S. Army, EPA, and UDEQ may change their respective Project Managers. The other Parties shall be notified in writing within ten (10) days of the change.

19.3A The Project Managers shall meet in the State of Utah to discuss progress as described in Subsection 10.5. Although the U.S. Army has ultimate responsibility for meeting its respective deadlines or schedule, the Project Managers shall assist in this effort by consolidating the review of primary and secondary documents whenever possible, and by scheduling progress

meetings to review reports, evaluate the performance of environmental monitoring at the Site, review RI/FS or RD/RA progress, discuss target dates for elements of the RI/FS to be conducted in the following one hundred and eighty (180) days, resolve disputes, and propose adjustments of deadlines or schedules. Unless otherwise agreed by the Project Managers, at least one week prior to each scheduled progress meeting, the U.S. Army will provide to the other Parties a draft agenda and summary of the status of the work subject to this Agreement. The minutes of each progress meeting, with the meeting agenda, copies of all Reports provided under Subsection 19.3B below since the previous meeting, and all documents discussed during the meeting (whether or not previously provided as attachments), shall constitute a progress report, which will be sent to all Project Managers within 14 days after the meeting ends. If an extended period occurs between Project Manager progress meetings, the Project Managers may agree that the U.S. Army shall prepare an interim progress report and provide it to the other Parties. Such reports shall be provided every three months. The report shall include the information that would normally be discussed in a progress meeting of the Project Managers. Other meetings shall be held more frequently upon request by any Project Manager.

19.3B. Copies of the Monthly Cost and Progress Reports prepared by the U.S. Army's contractors shall be provided to EPA and UDEQ Project Managers within seven (7) days of their receipt by the U.S. Army. Cost information may be redacted from the Reports before copies are provided to EPA and UDEQ Project Managers, or, if cost information is retained in the Reports, it may be claimed by the U.S. Army as being exempt from mandatory release under Section 35- Confidential Information, of this Agreement.

19.4 The authority of the Project Managers shall include, but is not limited to:

(a) Taking samples and ensuring that sampling and other field work is performed in accordance with the terms of any final Work Plan and Quality Assurance Project Plan (QAPP);

(b) Observing, and taking photographs and making such other reports on the progress of the work as the Project Managers deem appropriate, subject to the limitations set forth in Section 24- Access to Federal Facility, hereof;

(c) Reviewing records, files and documents relevant to the work performed;

(d) Determining the form and specific content of the Project Manager meetings and of progress reports based on such meetings; and

(e) Recommending and requesting minor field modifications to the work to be performed pursuant to a final Work Plan, or in techniques, procedures, or design utilized in carrying out such Work Plan.

19.5 The U.S. Army Project Manager, the UDEQ Project Manager, or the EPA Project Manager may also recommend and request field modifications to the work to be performed pursuant to this Agreement, or in techniques, procedures, or designs utilized in carrying out this Agreement, which are necessary to the completion of the project. Any major modification must be approved in advance by all Parties in writing. The U.S. Army Project Manager shall have the authority to order a cessation of work in circumstances in which, in his or her professional judgment, a threat to the public health or the environment would occur if such work were to continue. In the event an order to halt work is given, the U.S. Army Project Manager shall notify the EPA Project Manager and the UDEQ Project Manager verbally within one (1) working day of the order, and in writing within five (5) working days, and provide reasons therefor. If agreement cannot be reached on any proposed additional work or modification of work necessitated by such work stoppage, dispute resolution as set forth in Section 15- Dispute Resolution, may be used in addition to this Section.

19.6 The U.S. Army Project Manager will make a contemporaneous record of minor field modifications in a written log, and a copy of the log entry will be provided to the Parties as part of the next progress report.

19.7 The Project Manager for the U.S. Army will be responsible for day-to-day field activities at the Site and, consistent with other provisions of this Agreement, shall exercise the authority established in the NCP for the lead agency remedial project manager and on-scene coordinator. The U.S. Army Project Manager or other designated employee of TEAD-N shall be present at the Site or reasonably available to supervise work during all hours of work performed at the Site pursuant to this Agreement. For all times that such work is being performed, the U.S. Army Project Manager shall inform the command post at TEAD-N of the name and telephone number of the designated employee responsible for supervising the work.

19.8 The Project Managers shall be reasonably available to consult on work performed pursuant to this Agreement and shall make themselves available to each other during the pendency of this Agreement. The absence of the EPA, UDEQ, or the U.S. Army Project Managers from the facility shall not be cause for work stoppage of activities taken under this Agreement.

## 20. PERMITS

20.1 Activities undertaken by the U.S. Army shall be in compliance with all Federal, State, and local laws and regulations, except that, subject to the terms of this Agreement, the Parties recognize that under Sections 121(d) and 121(e)(1) of CERCLA, 42 U.S.C. Sections 9621(d) and 9621(e)(1), and the NCP, portions of the response actions required by this Agreement and conducted entirely on-site are exempted from the procedural requirement to obtain a Federal, State, or Local permit, but to the extent required by CERCLA Section 121, must satisfy all substantive state standards, requirements, criteria, or limitations which would have been included in any such permit. When the U.S. Army proposes a response action (including a Work Plan pursuant to this Agreement) to be conducted entirely on-site, which in the absence of Section 121(e) of CERCLA and the NCP would require a Federal or state permit, the U.S. Army shall include in the submittal:

(a) Identification of each permit which would otherwise be required;

(b) Identification of the standards, requirements, criteria, or limitations which would have to have been met to obtain each such permit; and

(c) An explanation of how the response action proposed will meet the standards, requirements, criteria, or limitations identified in paragraph (b) above.

The foregoing does not relieve EPA and UDEQ of any obligation under CERCLA Section 121 and this Agreement to identify ARARs. Upon request of the U.S. Army, EPA and UDEQ will provide their position with respect to submittals under paragraphs (a) and (b) above in a timely manner.

20.2 Nothing in this Agreement shall relieve the U.S. Army of the requirement(s) of applying for and obtaining a Federal, State, or local permit, license, or approval whenever it proposes or carries out a response action involving the shipment or movement off-site of a hazardous substance, pollutant or contaminant.

20.3 The U.S. Army shall notify EPA and UDEQ in writing of any permits required for off-site or on-site activities as soon as it becomes aware of the requirement. Upon request, the U.S. Army shall provide EPA and UDEQ copies of all such permit applications, notices of disposition, and other documents related to the permit process.

20.4 As noted at Subsection 5.3 of this Agreement, a Post-Closure Permit has been issued to the U.S. Army for ongoing



hazardous waste management activities at the Site. After the U.S. Army has identified its preferred remedial action(s) for the Site, the U.S. Army and UDEQ shall coordinate regarding how to modify the permit to incorporate the remedial action(s) into the permit, and the permit will be modified as provided by Utah law. Any comment period for the requested modification shall, to the maximum extent possible, run concurrently with the comment period discussed in Subsection 25.1 of Section 25- Public Participation and Community Relations. Copies of all comments received by each Party shall be provided to the other Parties.

20.5 If a permit which is necessary for the implementation of this Agreement is not issued, or is issued or renewed in a manner which is materially inconsistent with the requirements of this Agreement, the U.S. Army agrees that it shall notify UDEQ and EPA of its intention to propose modifications to this Agreement to obtain conformance with the permit (or lack thereof). Notification by the U.S. Army to propose modifications shall be submitted within seven (7) calendar days of receipt of notice by the U.S. Army that: (1) a permit will not be issued; (2) a permit had been issued or reissued; or (3) a final determination with respect to any appeal related to the issuance of a permit has been entered. Within thirty (30) days from the date it submits its notice of intention to propose modification, the U.S. Army shall submit to UDEQ and EPA its proposed modifications to this Agreement with an explanation of its reasons in support thereof.

20.6 During an appeal of any permit which is not issued, or is issued or renewed in a manner which is materially inconsistent with the requirements of this Agreement, or during review of any of the U.S. Army's proposed modifications as provided in Subsection 20.3 of this Section, the U.S. Army shall continue to implement those portions of this Agreement which can be implemented pending final resolution of the permit issue(s).

## 21. QUALITY ASSURANCE

21.1 In order to provide quality assurance and maintain quality control regarding all field work and sample collection performed pursuant to this Agreement, the U.S. Army agrees to ensure, through designated persons other than, and not direct employees of, the Project Manager, that all work is performed in accordance with approved Work Plans, sampling plans and QAPPs. The U.S. Army shall maintain a record of quality assurance field activities and provide a copy to the Parties upon request.

21.2 To ensure compliance with the QAPP, the U.S. Army shall arrange for access, upon request by EPA or UDEQ, to all laboratories performing analysis on behalf of the U.S. Army pursuant to this Agreement.

## 22. SAMPLING AND DATA/DOCUMENT AVAILABILITY

22.1 Each Party shall make available to the other Parties the results of sampling, tests, or other data or documents generated through the implementation of this Agreement. Except as provided in CERCLA Section 120(j), all quality assured data shall be supplied within sixty (60) days of completion of sampling. No claim of confidentiality or privilege shall be made for analytical data or data validation packages that have been validated to the QAPP. If the quality assurance procedure is not completed within sixty (60) days, raw data or results shall be submitted to the other Parties within the sixty (60) day period and quality assured data or results shall be submitted as soon as they become available.

22.2 The sampling Party's Project Manager shall notify the other Parties' Project Managers at least fourteen (14) days prior to conducting routine environmental sampling. If it is not possible to provide 14 days prior notification, the sampling Party's Project Manager shall notify the other Project Managers as soon as possible after becoming aware that samples will be collected. The Parties shall allow any other Party to observe field work and to take split or duplicate samples. The Parties do not anticipate that duplicate samples will exceed 15% of all samples collected pursuant to this Agreement.

## 23. RECORD PRESERVATION

Each Party to this Agreement shall preserve, for a minimum of ten (10) years after termination of this Agreement, all records and documents in its possession or control which relate to actions taken pursuant to this Agreement. After this ten (10) year period, each Party shall notify the other Parties at least forty-five (45) days prior to proposed destruction or disposal of any such documents or records. Upon the request of any Party, the requested Party shall make available such records or copies of any such records unless withholding is authorized and appropriate by law.

## 24. ACCESS TO FEDERAL FACILITY

24.1 Without limitations on any authority conferred on EPA or UDEQ by statute or regulation, EPA, UDEQ, and/or their authorized representatives shall be allowed to enter TEAD-N at reasonable times for purposes consistent with the provisions of the Agreement, by providing reasonable advance notification to the U.S. Army Project Manager, for the purposes of, among other things:

(a) Inspecting and copying records, operating logs, contracts, files, photographs, sampling and monitoring data, and other documents relevant to implementation of this Agreement;

(b) Reviewing the progress of the U.S. Army, its response-action contractors or lessees in implementing this Agreement;

(c) Conducting such tests as the EPA, UDEQ, or the Project Managers deem necessary; and

(d) Verifying the data submitted to EPA and UDEQ by the U.S. Army.

The U.S. Army shall not deny any reasonable request for such access by EPA and UDEQ conditioned only upon presentation of proper credentials. Such access shall be obtained in conformance with statutory and regulatory requirements, including without limitation, the U.S. Army security regulations (however, this provision shall not be read to indicate what law prevails in the event there is a conflict between EPA and/or UDEQ access authorities and U.S. Army security requirements). UDEQ and EPA shall not have an affirmative obligation under this provision to determine U.S. Army security requirements; U.S. Army security requirements shall be provided by the U.S. Army as they become pertinent.

24.2 The Parties agree that from time to time EPA and UDEQ may conduct unannounced inspections. In such instances, a telephone call from the gate at TEAD-N will be deemed reasonable advance notification for purposes of this Section.

24.3 With respect to work which the U.S. Army is currently conducting or may conduct on property pursuant to access agreements with the landowner, the U.S. Army shall use its best efforts to the maximum extent of its authority, including CERCLA Section 104(e), to obtain agreement from the landowner allowing for access by EPA and UDEQ. The access agreements shall also provide that no conveyance of title, easement, or other interest in the property shall be consummated without the continued right of entry, and shall provide that the owners of any property where such response actions are conducted shall notify EPA, UDEQ, and the U.S. Army by certified mail, at least thirty (30) days prior to any conveyance, of the property owner's intent to convey any interest in the property and of the provisions made for the continued access to such property.

24.4 In the event that Site access cannot be obtained as described in Subsection 24.3 above, the U.S. Army shall notify EPA and UDEQ regarding the lack of, and efforts to obtain, such access. The U.S. Army may submit a request for appropriate modification(s) to the work to be performed because of such inability to obtain access. In the event that the Parties cannot agree upon such modification(s), Dispute Resolution may be invoked.

24.5 The U.S. Army may request the assistance of EPA and UDEQ where access problems persist and, where appropriate, the U.S. Army agrees to take action to obtain compliance pursuant to CERCLA Section 104(e)(5). The U.S. Army will seek such approval for all Parties to this Agreement where practicable.

24.6 All Parties shall exercise access to the Site in compliance with all approved health and safety plans where applicable to such access.

24.7 Except as specifically stated, nothing in this Section is intended to restrict EPA's or UDEQ's right of access under applicable law.

## 25. PUBLIC PARTICIPATION AND COMMUNITY INVOLVEMENT

25.1 The Parties agree that any proposed response action at the Site arising out of this Agreement shall comply with the administrative record and public participation requirements of CERCLA Sections 113(k) and 117, 42 U.S.C. Section 9313(k) and 9617, relevant community relations provisions in the NCP, national and regional EPA policy and guidance (including, but not limited to EPA OSWER Directive 9203.0-3B, Community Relations in Superfund: A Handbook, dated June 1988, and any modifications thereto), and, to the extent they may apply, State statutes and regulations. UDEQ agrees to inform the U.S. Army and EPA of all State requirements which it believes pertain to public participation. The Parties agree that community involvement shall be conducted in consultation with EPA and UDEQ. The provisions of this Section shall be carried out in a manner consistent with, and shall fulfill the intent of, Section 5-Statutory Compliance-RCRA/CERCLA Integration.

25.2 The U.S. Army has, based on community interviews, developed and submitted a draft Community Relations Plan (CRP) addressing community concerns and involvement in environmental activities and elements of work undertaken by the U.S. Army pursuant to this Agreement. EPA and UDEQ have provided comments on this draft. The draft will be finalized pursuant to Section 10- Consultation. Once finalized, the U.S. Army shall implement the CRP consistent with OSWER Directive 9230.0-3B. All informational materials produced by the U.S. Army in the implementation of the CRP are subject to review and comment by EPA and UDEQ. The U.S. Army shall notify the community when disputes between the U.S. Army, EPA, and/or UDEQ are taken to the SEC level for resolution. In addition, the U.S. Army shall notify the public of the resolution of such disputes.

25.3 The Parties acknowledge that the U.S. Army has established an administrative record in accordance with Section 113(k) of CERCLA, as amended. The administrative record is kept at the Environmental Management Directorate at Tooele Army Depot.

A copy of the administrative record is also kept at the Tooele County Public Library in Tooele, Utah. Public access to the administrative record shall be available through at least one administrative record repository in addition to that maintained at TEAD-N. This administrative record repository shall be physically accessible to the public and, at a minimum, be open during normal business hours. Access to the repository shall not be dependent on the presence or absence of U.S. Army personnel. An alternate location for the administrative record repository shall be determined, by mutual agreement of the Parties, in the event that conditions at the repository prevent physical access or access during normal business hours. The U.S. Army shall maintain the administrative record in accordance with relevant provisions in CERCLA, the NCP, and EPA guidance. EPA and UDEQ may furnish documents to the U.S. Army for inclusion in the Administrative Record to ensure that the Administrative Record contains all documents that form the basis for the selection of the response action. The U.S. Army shall update the Administrative Record at least quarterly at repository locations and shall provide such repositories with applicable data, reports, and action plans developed for the Site so that such information is made available to the public in a timely manner. An index listing each document in the administrative record shall be provided by the U.S. Army to EPA and UDEQ. The index shall be updated quarterly and provided by the U.S. Army to EPA and UDEQ. The U.S. Army shall promptly provide any document in the administrative record to EPA or UDEQ upon request.

25.4 Except in case of an emergency or in matters regarding enforcement of this Agreement, any Party issuing a press release or initiating a media contact for the purposes of providing significant information to the media with reference to any of the work required by this Agreement shall advise the other Parties of such press release or media contact and the contents thereof, at least two (2) working days prior to issuance. Other documents prepared by the U.S. Army pursuant to the Community Relations Plan (and which are not primary or secondary documents pursuant to this Agreement), or documents prepared by EPA or UDEQ for community involvement purposes related to the site, will be submitted to the other Parties for review and comment at least seven (7) working days, unless otherwise agreed by the Project Managers, prior to finalization and release.

## 26. FIVE YEAR REVIEW

26.1 Consistent with 42 U.S.C. Section 9621(c) and in accordance with this Agreement, if the selected remedial action results in any hazardous substances, pollutants or contaminants remaining at the Site, the Parties shall review the remedial action program at least every five (5) years after the initiation of the final remedial action to assure that human health and the

environment are being protected by the remedial action being implemented.

26.2 To synchronize the five-year reviews for all operable units, the following procedure will be used: Review of operable units will be conducted every five years counting from the initiation of remedial action for the first operable unit. Review of the final remedial action for all operable units shall be conducted every five years thereafter.

## 27. AMENDMENT OR MODIFICATION OF AGREEMENT

This Agreement can be amended by unanimous agreement among EPA, UDEQ, and the U.S. Army. Such amendments shall be in writing and shall have as their effective date the date on which they are signed by all Parties, unless otherwise agreed.

## 28. TERMINATION AND SATISFACTION

28.1 The provisions of this Agreement shall be deemed satisfied and terminated upon receipt by the U.S. Army of written notice from EPA and UDEQ, that the U.S. Army has demonstrated to the satisfaction of EPA and UDEQ that all the terms of this Agreement have been completed. If EPA denies or otherwise fails to grant a termination notice within 90 days of receiving a written U.S. Army request for such notice, EPA shall provide a written statement of the basis for its denial and describe the U.S. Army actions which, in the view of EPA, would be a satisfactory basis for granting a notice of completion. Such denial shall be subject to dispute resolution. If UDEQ denies or otherwise fails to grant a termination notice within 90 days of receiving a written U.S. Army request for such notice, the State shall provide a written statement of the basis for its denial and describe the U.S. Army actions which, in the view of UDEQ, would be a satisfactory basis for granting a notice of completion. Such denial by UDEQ shall be subject to dispute resolution using the procedures specified in Subsection 32.8 of this Agreement, except that dispute resolution shall begin at the level specified in paragraph 32.8(a).

28.2 This provision shall not affect the requirements for periodic review at maximum five-year intervals of the efficacy of the remedial actions.

## 29. RESERVATION OF RIGHTS

29.1 By entering into this Agreement, and notwithstanding any other Section of this Agreement, UDEQ does not waive any right, authority, or claim it may have under law, but expressly reserves all of the rights, authorities and claims it may have thereunder, except that UDEQ expressly agrees to exhaust any applicable remedies as provided under Section 10- Consultation,

Section 15- Dispute Resolution, and Subsection 32.8 of Section 32- Reimbursement of UDEQ Costs, as provided in Section 16- Enforceability, prior to exercising any such rights. UDEQ also agrees to exercise any such rights within a reasonable period of time.

29.2 Specifically, and without limitation, UDEQ reserves any rights and any authority it may have to require corrective action in accordance with the Utah Solid and Hazardous Waste Act, 19-6-101, et seq., Utah Code Annotated, its rights and authorities under Section 16-Enforceability, and any claim for natural resource damage assessments for damages to natural resources.

29.3 Unless expressly waived by law, Utah does not waive its Sovereign Immunity by entering into this Agreement.

29.4 This reservation shall not apply with respect to claims for costs reimbursed by the U.S. Army pursuant to Section 32-Reimbursement of UDEQ Costs.

29.5 Nothing in this Agreement, including execution hereof, shall be deemed to constitute an authorization by the President pursuant to Section 122(e)(6) of CERCLA, 42 U.S.C. Section 9622(e)(6), and the Parties explicitly reserve all rights and authorities they may have pursuant to Section 122(e)(6) of CERCLA, 42 U.S.C. Section 9622(e)(6).

29.6 This Agreement shall not be construed to restrict EPA or UDEQ from taking any appropriate action under pertinent statute, law, regulation, or other authority relative to matters which are not within the scope of this Agreement.

### 30. OTHER CLAIMS

Nothing in this Agreement shall constitute or be construed as a bar or release from any claim, cause of action or demand in law or equity by or against any person, firm, partnership or corporation not a signatory to this Agreement for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous waste, pollutants, or contaminants found at, taken to, or taken from the Site. Unless specifically agreed to in writing by the Parties, EPA and UDEQ shall not be held as a party to any contract entered into by the U.S. Army to implement the requirements of this Agreement.

### 31. RECOVERY OF EPA EXPENSES

The Parties agree to amend this Agreement at a later date in accordance with any subsequent national resolution of the issue

of cost reimbursement. Pending such resolution, EPA reserves any rights it may have with respect to cost reimbursement.

## 32. REIMBURSEMENT OF UDEQ COSTS

### 32.1 Coverage

(a) This Section covers reimbursement of the costs associated with providing UDEQ services pursuant to this Agreement. This Agreement does not cover the costs of services rendered prior to the onset of negotiations for this Agreement; services at properties other than those at the Site that are the subject of this Agreement; or activities funded from sources other than the Environmental Restoration, Defense Appropriation (DERA).

(b) The U.S. Army agrees to seek sufficient funding through the DOD budgetary process in accordance with Section 18-Funding, and to pay UDEQ for the services specified in Subsection 32.2 for those activities or portions of activities at the Site covered by this Agreement and funded by DERA subject to the conditions and limitations set forth in this Agreement.

(c) The U.S. Army agrees that full funding for UDEQ support services pursuant to this Section will be provided in the event that funding is provided for site work under this Agreement.

### 32.2 Services

UDEQ services that qualify for payment under this Agreement include the following type of assistance provided by UDEQ (or by other State agencies under an agreement with UDEQ) under this Agreement commencing at Site identification and continuing through construction as well as any other activities that are funded by DERA:

(a) Technical review, comments and recommendations on all documents or data required to be submitted to UDEQ under this Agreement and all documents or data that are provided by the U.S. Army to UDEQ for review as a result of a request from UDEQ made under applicable law.

(b) Identification and explanation of State of Utah applicable or relevant and appropriate requirements related to response actions at TEAD-N.

(c) Site visits and field activities including sampling to review the U.S. Army response actions, ensure their consistency with appropriate State of Utah requirements and ensure data quality in accordance with this Agreement.



(d) Participation in cooperation with the U.S. Army in the conduct of public education and public participation activities in accordance with Federal and State requirements for public involvement.

(e) Services provided at the request of the U.S. Army in connection with participation in Technical Review Committees.

(f) Preparation and administration of a cooperative agreement to implement this Agreement, including the estimates of UDEQ costs.

(g) This is not intended to change any obligations that the U.S. Army may have to pay permit (plan) review fees.

### 32.3 Accounting Procedures

(a) Subject to the provisions of Subsections 32.2, 32.4 and 32.5, reimbursement of eligible UDEQ costs shall be paid if the costs were incurred after the onset of negotiations of this Agreement and have been documented using accounting procedures and practices that reasonably identify the nature of the costs involved, the date the costs were incurred, and show that the costs were entirely attributable to those activities or portions of activities at the Site that are subject to this Agreement.

(b) Payment of eligible UDEQ costs for services provided after the effective date of this Agreement must comply with all applicable Federal procurement and auditing requirements.

### 32.4 Reimbursement Amounts

The U.S. Army estimates that its costs to complete the remedial actions at TEAD-N under this Agreement may total \$22,000,000. Both parties recognize that as of the date of this Agreement, the estimate and the corresponding UDEQ services which are to be reimbursed under this Section may change. The U.S. Army recognizes that more UDEQ services are likely to be expended during the RI/FS than during the RD/RA. Assuming the U.S. Army estimate of its costs is correct, the U.S. Army believes that its reimbursement to UDEQ should be limited to \$220,000. Since much of the Site is in the early stages of investigation, UDEQ cannot accurately estimate its funding needs at this time, but does not believe that reimbursement should be limited to \$220,000. The U.S. Army agrees to negotiate in good faith for a higher reimbursement limit or with respect to any other matter subject to this Section if, during the life of this Agreement, the scope of work at the Site or the corresponding level of UDEQ reimbursable services increases. The U.S. Army agrees to begin negotiations within 30 days of UDEQ's request. If negotiations

have not been successfully completed within 60 days after they begin, the matter shall be referred to Dispute Resolution pursuant to Subsection 32.11.

### 32.5 Annual Budget Limits

(a) UDEQ may request, and the U.S. Army shall approve, subject to the restrictions specified in this Section, up to a maximum of \$55,000 per federal fiscal year during fiscal years 1992 and 1993. The U.S. Army may approve an annual budget limit that exceeds \$55,000 if UDEQ demonstrates the need for higher funding based on the scope of the work projected during the federal fiscal year. UDEQ may carry over unused funds into subsequent years. If the cost of UDEQ services during a federal fiscal year exceeds the annual budget limit, UDEQ may expend its own funds to pay the costs of those services. To the extent allowable under Federal procedures for cooperative agreements, UDEQ may seek reimbursement of these costs in a subsequent year through the cooperative agreement as long as the total amount of the payments to UDEQ does not exceed the greater of \$220,000 or any ceiling later agreed upon as an amendment to this Agreement or in any state-wide Defense/State Memorandum of Agreement (DSMOA), or the annual budget limit for that federal fiscal year specified in this Agreement, any amendment to this Agreement, or any state-wide DSMOA. A payment schedule for reimbursement of past costs will be devised by Utah or the U.S. Army.

(b) Annual budget limits for the federal fiscal years after 30 September 1993, shall be negotiated annually or for such other periods to which the Parties may agree. The U.S. Army and UDEQ agree to begin such negotiations at least 30 days before the beginning of the new federal fiscal year.

### 32.6 Procedures for Reimbursement

Procedures for UDEQ reimbursement shall be in accordance with Office of Management and Budget (OMB) Circulars A-102, A-87 and A-128 and 32 C.F.R. Part 278. This Agreement is considered a cooperative agreement within the meaning of 31 U.S.C. 6305. After this Agreement is executed, UDEQ may submit requests for advance reimbursements on a quarterly basis. The U.S. Army will process the requests and make payment within 90 days after receipt of the request. Within 60 days after the end of each quarter, UDEQ shall submit to the U.S. Army a status report, including cost summaries which directly relate allowable costs actually incurred by UDEQ under this Agreement during the quarter. Allowability of costs shall be determined in accordance with this Agreement and OMB Circular 87. Audits shall be accomplished in accordance with OMB Circular A-128. The U.S. Army has the right to audit cost reports used by UDEQ to develop the cost summaries.

### 32.7 Additional Work

When the U.S. Army requests that UDEQ perform a specific technical study or similar technical support that could otherwise be done by a contractor, and UDEQ agrees to do the work, funding will be negotiated between the U.S. Army and UDEQ outside this Agreement.

### 32.8 Dispute Resolution

The Project Managers shall be the primary points of contact for disputes relating to reimbursement pursuant to this Section. For any such disputes, the following procedures shall govern in lieu of the procedures in Section 15- Dispute Resolution:

(a) Should the Project Managers be unable to agree, the matter shall be referred in writing as soon as practicable, but no more than 10 days after either party requests dispute resolution, to the Commander, Tooele Army Depot and the Director of the Superfund Bureau of the Division of Environmental Response and Remediation, UDEQ, or their designees.

(b) Should the U.S. Army and the State designated officials be unable to agree within 10 days, the matter shall be referred to the Commander, Tooele Army Depot, and to the Director of the Division of Environmental Response and Remediation, UDEQ, or their designees.

(c) Should the parties in (b) above be unable to agree, within 20 days, the matter shall be referred to the Executive Director of the Department of Environmental Quality of the State of Utah and the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health for resolution.

(d) If the Executive Director of the Department of Environmental Quality and the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health are unable to resolve the dispute, the State may exercise any legal remedies which are available to it.

32.9 The U.S. Army and UDEQ agree that the terms and conditions of this section shall become null and void if the State enters into a DSMOA with the Department of Defense which addresses State reimbursement.

### 33. PUBLIC COMMENT

33.1 The provisions of this Section shall, to the maximum extent possible, be carried out in a manner consistent with, and shall fulfill the intent of Section 5- Statutory Compliance - RCRA/CERCLA Integration.

33.2 Within fifteen (15) days of the date on which the last Party signs this Agreement, UDEQ shall propose to modify TEAD-N's hazardous waste management permit by incorporating this Agreement. The comment period for this modification shall, to the maximum extent possible, coincide with the comment period specified in Subsection 33.3 of this Agreement.

33.3 Within fifteen (15) days of the date on which the last Party signs this Agreement, the U.S. Army shall announce the availability of this Agreement to the public for a forty-five (45) day period of review and comment, including publication as a display advertisement in at least two major local newspapers of general circulation. Persons who have requested to be on a mailing list to receive information about the Site shall be notified by first class mail. The procedures set forth in CERCLA Section 117 and in the NCP regarding location of the Agreement for review by the public shall apply. The contents of the notice shall include, at a minimum, a statement of the purpose of the Agreement; the name, address, and phone number of a person from whom further information concerning the Agreement may be obtained; a brief description of the procedures for submitting comments and for requesting a public meeting, and for the Parties' response to comments; the location of the administrative record and times at which the record will be available for public inspection; and a reference to applicable statutory and regulatory authority for the Agreement. Comments received shall be transmitted promptly to the other Parties after the end of the comment period. The Parties shall review such comments and within thirty (30) days of the end of the comment period shall either:

(a) Determine that this Agreement should be made effective in its present form, in which case EPA shall promptly notify all Parties in writing, and this Agreement shall become effective on three days after issuance of such notification; or

(b) If the determination in Subsection 33.3(a) is not made, the Parties shall meet to discuss and agree upon any proposed changes. If the Parties do not mutually agree on all proposed changes within thirty (30) days from the close of the public comment period, the Parties shall submit their written notices of position directly to the Dispute Resolution Committee, and the dispute resolution procedures of Section 15- Dispute Resolution shall apply to the disputed provisions. Upon resolution by unanimous agreement of any proposed changes, the Agreement shall be modified and shall be re-executed by the Parties with EPA signing last and shall become effective on the date that it is signed by EPA.

(c) In the event that the Agreement is modified following the exhaustion of the dispute resolution procedures in

Section 15- Dispute Resolution, the U.S. Army and UDEQ reserve the right to withdraw from the Agreement within twenty (20) days of EPA's submission of the modified Agreement to the Parties via overnight mail. If neither the U.S. Army nor UDEQ provide EPA with written notice of withdrawal from the Agreement within such twenty (20) day period, the Agreement, as modified, shall automatically become effective on the twenty-first day, and EPA shall issue a notice to the Parties within three working days of the effective date of the modified Agreement.

33.4 If there is a written request for public meeting within the time period for public comment, the Parties shall hold a public meeting after thirty (30) days prior notice. A written transcript or tape recording of the meeting shall be prepared and provided to the Parties, and such written transcript or tape recording shall be a part of the administrative record under this Agreement.

33.5 When the final decision by the Parties is reached on whether to finalize the Agreement in its original form, modify, or withdraw from the Agreement, the Parties shall issue a notice of decision for the Agreement consistent with the procedures of Section 117 of CERCLA and the NCP, 40 C.F.R. Section 300.430(f)(6). In addition, the Parties shall issue a response to comments consistent with the procedures set forth in the NCP, 40 C.F.R. Section 300.430(f)(3)(i)(F).

#### 34. SUCCESSORS AND ASSIGNS

34.1 This Agreement shall apply to and be binding on the U.S. Army, UDEQ and EPA and their officers, successors in office, agents, and employees. The U.S. Army shall assure that no portion of the Site shall be used in any manner which would adversely affect the integrity of any monitoring system or response measure installed pursuant to this Agreement. This Agreement shall also apply to subsequent owners and operators of TEAD-N, consistent with the requirements of Section 37 -Transfer of Real Property, of this Agreement.

34.2 The U.S. Army shall include notice of this Agreement in any document transferring ownership to any subsequent owner or operator of any portion of TEAD-N in accordance with Section 120(h) of CERCLA and shall notify EPA and UDEQ of any such change or transfer at least ninety (90) days prior to such transfer. Notice pursuant to Section 120 (h)(3)(B) of CERCLA of any transfer of ownership shall not relieve the Department of Defense (DOD) and the U.S. Army of their obligations to perform pursuant to this Agreement.

35. CONFIDENTIAL INFORMATION

The U.S. Army may assert a confidentiality claim covering all or part of the information requested or required to be submitted under this Agreement, except that analytical data and sampling results shall not be claimed as exempt from mandatory release by the U.S. Army. Information determined to be exempt from mandatory release pursuant to the Freedom of Information Act shall be afforded the protection specified therein. Information determined to be exempt from mandatory release by UDEQ pursuant to Utah law and implementing rules may be afforded the protection specified therein by UDEQ. If no claim of confidentiality accompanies information when it is submitted to EPA and UDEQ, the information may be made available to the public without further notice to the U.S. Army.

36. NOTICE TO THE PARTIES

36.1 All Parties shall transmit primary and secondary documents, comments, notices and all other submissions required herein by certified mail, return receipt requested, Federal Express, or similar method that provides a record of send and receipt dates. Routine correspondence may be sent by first class mail.

36.2 Submittals and Notices shall be sent to the following addresses:

(a) For the U.S. Army:

Larry D. Fisher  
Environmental Management Division  
Tooele Army Depot, SDSTE-IRE, Bldg. 113  
Tooele, Utah 84074-5000

Phone: 801-833-3504  
FAX: 801-833-2839  
Alternate contact: Brad Thacker

(b) For EPA:

Henry C. Schroeder  
U.S. Environmental Protection Agency  
Region VIII, 8HWM-FF  
999 18th Street, Suite 500  
Denver, Colorado 80202-2405

Phone: 303-294-1981  
FAX: 303-294-7559  
Alternate contact: C. Jay Silvernale

(c) For UDEQ:

J. Steven Thiriot  
Project Manager  
Utah Department of Environmental Quality, DERR  
288 North 1460 West  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Phone: 801-538-6338  
FAX: 801-538-6016  
Alternate contact: Terry L. Hawkins

Unless otherwise indicated in this Agreement, notification of change of addresses or phone numbers specified in this Section shall be provided to the other Parties at least ten (10) days prior to the effective date of such change.

The Party requesting an extension due to the occurrence of a Force Majeure will provide the written notification described in Subsection 12.1, within 48 hours after the Party knows, or should have known, of the Force Majeure event and of the resultant delay. The failure to provide timely notice does not constitute a waiver of the right to an extension due to a Force Majeure.

### 37. TRANSFER OF REAL PROPERTY

The U.S. Army shall not transfer any real property comprising the Federal facility except in compliance with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), and those regulations set forth at 40 C.F.R. Part 373. The notice required under Section 34-Successors and Assigns, of this Agreement shall include notice of all provisions made for any additional response actions, as such are required.

### 38. DELETION OF SITE FROM THE NPL

Upon the completion of all response actions at the entire NPL Site (including but not limited to both CERCLA and RCRA actions as set forth in this Agreement), EPA, after consultation with UDEQ, shall apply those procedures and criteria set forth in CERCLA, the NCP, and pertinent EPA guidance, including but not limited to "Procedures for Completion and Deletion of National Priorities List Sites" (OSWER Directive 9320.2-3A) and any amendments thereto, to determine whether all response actions necessary to protect human health, welfare, and the environment and to effectuate deletion of the entire NPL Site have been implemented.

If EPA determines, after consultation with UDEQ, that all necessary actions as set forth above have been implemented such that procedures for deletion of the Site from the NPL can be

implemented, EPA will initiate steps to delete the Site from the NPL. If EPA determines, after consultation with UDEQ, that further response actions by the U.S. Army are necessary to delete the Site from the NPL, EPA shall notify the U.S. Army of the steps which are necessary to initiate deletion of the Site from the NPL. Implementation by the U.S. Army of such actions determined by EPA to be necessary to delete the Site from the NPL shall be pursuant to Section 10 - Consultation, or by modification or amendment of this Agreement.

EPA reserves the right to review all response actions at any portion of the Site, including response actions at those portions of the Site which have been undertaken pursuant to authorities other than CERCLA, and require all actions pursuant to CERCLA which may be necessary to delete the Site from the NPL. EPA's review of actions under Subsection 6.4 above, shall, to the maximum extent practicable, be performed through its oversight role of the UDEQ's RCRA authorized hazardous waste program. The Parties acknowledge that there are existing agreements between EPA and UDEQ which define that oversight role. Nothing in this Section shall alter or affect the provisions of Section 6 of this Agreement concerning the scope of the Agreement.

### 39. AUTHORIZED SIGNATURES

Each of the undersigned representatives of the Parties certifies that he or she is fully authorized to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement. The Commander, Tooele Army Depot, is independently authorized to bind the U.S. Army in the event of a modification of this Agreement pursuant to Section 27- Amendment or Modification of this Agreement, which revises an attachment to this Agreement.



It Is So Agreed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BY: Jack W. McGraw  
Jack W. McGraw  
Acting Regional Administrator, Region VIII  
U. S. Environmental Protection Agency

9/10/91  
DATE

It Is So Agreed.

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

BY: Kenneth R. Alkema  
Kenneth L. Alkema

16 September 1981  
DATE

Executive Director, Department of Environmental Quality

It Is So Agreed.

UNITED STATES DEPARTMENT OF THE ARMY

BY: Lewis D. Walker  
Lewis D. Walker, Deputy Assistant  
Secretary for Environment, Safety,  
and Occupational Health.

9/6/91  
DATE

It Is So Agreed.

UNITED STATES DEPARTMENT OF THE ARMY

BY: David M. Emling  
Colonel David M. Emling  
Commander, Tooele Army Depot-North, Utah

16 Sep 91  
DATE

Attachment 1:

List of Source Areas and Associated Operable Units

ATTACHMENT 1

OPERABLE UNITS AND SOURCE AREAS AT TEAD-N NPL SITE

OPERABLE UNIT #4

Source Area - #35 Waste Water Spreading Area

OPERABLE UNIT #5

Source Areas - #17 Transformer Storage Area  
- #31 Former Transformer Boxing Area  
- #32 PCB Spill Site  
- #33 PCB Storage Building 659

OPERABLE UNIT #6

Source Areas - #9 Drummed Radioactive Waste  
- #18 Radioactive Waste Storage Bldg.

OPERABLE UNIT #7

Source Areas - #5 PCB Pole Spill  
- #6 Old Burn Area  
- #7 Chemical Range  
- #13 Tire Disposal Area  
- #36 Old Burn Staging Area

OPERABLE UNIT #8

Source Areas - #22 Building 1303 Washout Pond  
- #23 Bomb and Shell Reconditioning

OPERABLE UNIT #9

Source Areas - #8 SM Firing Range (Rifle Range)  
- #40 AED Test Range (Rifle Range)

OPERABLE UNIT #10

Source Area - #41 Box Elder Wash Drum Site

OPERABLE UNIT #11

New Source Areas

Attachment 2:

List of Solid Waste Management Units (SWMUs) Not  
Within the Scope of This Agreement

ATTACHMENT 2

TEAD-N SOLID WASTE MANAGEMENT UNITS (SWMUS)  
AT TEAD-N NPL SITE, NOT WITHIN SCOPE OF AGREEMENT

GROUP 1 KNOWN RELEASE PERMITTED

TEAD-N SWMUS: - #2 Industrial Waste Lagoon

GROUP 2 KNOWN RELEASE

TEAD-N SWMUS: - #3 X-Ray Lagoon  
- #10 TNT Washout Facility  
- #11 TNT Washout Facility  
- #12 Pesticide Disposal Area  
- #15 Sanitary Landfill  
- #24 Battery Pit  
- #25 Battery Shop  
- #30 Old Industrial Waste Lagoon

GROUP 3 SUSPECTED RELEASE

TEAD-N SWMUS: - #1 OB/OD Area  
- #1a Cluster Bomb Detonation Area  
- #1b Propellant Burn Pad  
- #1c Trash Burn Pits  
- #4 Sandblast Area  
- #14 Sewage Lagoons  
- #19 AED Demil. Test Facility  
- #20 AED Deactivation Furnace Site  
- #21 AED Deactivation Furnace Bldg.  
- #26 DRMO Storage Yard  
- #27 RCRA Container Storage  
- #28 90-Day Drum Storage Area  
- #29 Drum Storage Areas  
- #34 Pesticide Handling and Storage  
- #37 Contaminated Waste Processing Plant  
- #38 Industrial Waste Treatment Plant  
- #39 Solvent Recovery Facility  
- #42 Bomb Washout Building  
- #43 Container Storage P999  
- #44 Tank Storage (TCE)  
- #45 Stormwater Discharge Area  
- #46 Used Oil Dumpsters  
- #47 Boiler Blowdown Buildings



Attachment 3:

Statement of Facts

### ATTACHMENT 3

#### STATEMENT OF FACTS

1. For purposes of this Agreement, the following constitutes a summary of the facts on which this Agreement is based. None of the facts related herein shall be considered admissions by any Party. The fact of their recitation here shall not be used by any Party related or unrelated to this Agreement for purposes other than determining the basis for this Agreement.

2. The facility, known as Tooele Army Depot, North Area (TEAD-N), occupies approximately 24,732 acres located in Tooele Valley, Tooele County (1986 population 28,700), approximately 35 miles southeast of Salt Lake City, Utah, and immediately east of the City of Tooele (1986 population 15,380). The City of Grantsville (1986 population 5,170) is located approximately 2 miles north of TEAD-N.

3. TEAD-N is bounded on the south by the Stockton Bar and South Mountain, to the west by the Stansbury Mountains, to the east by the Oquirrh Mountains, and to the north by agricultural area. Tooele Valley is predominately undeveloped with the exceptions of Grantsville, City of Tooele, and scattered residential development north of the City of Tooele. Except for the City of Tooele, properties immediately adjacent to TEAD-N boundaries are undeveloped. Properties to the north are used for pasture or cultivation; properties to the west and south are used for rangeland grazing. Properties east of TEAD-N consist of the City of Tooele; residential development within the City of Tooele abuts this portion of TEAD-N.

4. TEAD-N was established as Tooele Ordnance Depot on April 7, 1942, by the U.S. Army Ordnance Department. During World War II, TEAD-N was a back-up depot for the Stockton Ordnance Depot and Benicia Arsenal, both in California. It stored vehicles, small arms, and other equipment for export. It was redesignated as TEAD-N in August 1962. Developed features of TEAD-N include igloos, magazines, administrative buildings, an industrial maintenance area, military and civilian housing, roads, hardstands for vehicle storage, firing ranges, and other allied infrastructure. TEAD-N is a major ammunition storage and equipment maintenance installation in the U.S.. The current mission of TEAD-N is to receive, store, issue, maintain, and dispose of munitions and items of military equipment; to provide

installation support to attached organizations; and to operate other facilities as assigned.

5. Wastes generated at the TEAD-N facility have consisted of non-hazardous and hazardous wastes, including volatile and semi-volatile compounds, metals, acids and bases, sandblast materials, solvents and other hydrocarbons, industrial and sewage sludges, pesticides and herbicides, radioactive wastes, munitions and explosives. Liquid and solid wastes, including hazardous substances, have been released at various locations at the TEAD-N facility. Wastes have also been disposed of off the TEAD-N site by commercial contract.

6. A series of investigative studies were performed at TEAD-N between 1979 and 1990. These studies ranged from general environmental surveys of the area to remedial investigations and risk assessments. The first reports were an attempt to define TEAD-N activities and their potential environmental impacts, and to identify the Solid Waste Management Units (SWMUs) of concern on TEAD-N using existing data.

7. SWMUs on TEAD-N were identified further in 1986 and 1988 reports. Ground water quality assessment reports were prepared in 1985 and 1987. In two reports in 1986, TEAD-N defined the extent of ground water contamination associated with the Industrial Wastewater Lagoon (SWMU 2), and assessed alternatives for closing the IWL. A Preliminary Assessment/Site Investigation Report completed in 1988 identified SWMUs that presented a known or potential threat to public health or the environment. In a Final Draft Remedial Investigation Report, TEAD-N presented data gaps for five SWMUs: the TNT Washout Facility, the Chemical Range, the Old Burn Area, the Sanitary Landfill, and the Drum Storage Area.

8. EPA proposed TEAD-N for inclusion on the National Priority List (NPL) on October 2, 1984 (49 F.R. 40320, 40339: October 15, 1984). TEAD-N was listed on the NPL on October 1, 1990 (55 F.R. 35502, 35509: August 30, 1990).

9. In 1990, TEAD-N prepared Site Investigation and Remedial Investigation Workplans which included the following sub-elements: Draft Final Health and Safety Plan, a Draft Final Quality Assurance Project Plan, and a Draft Final Remedial Site Investigation Field Sampling Plan. The monitoring well installation portion of these plans was completed in September of 1990. No further work under these workplans has been implemented.

10. A Technical Review Committee composed of TEAD-N, UDEQ, local government and community members, and EPA was established on May 15, 1989.

11. References herein to Groups and the SWMUs associated with them are to designations made in the Postclosure Permit (PCP), issued by the State, for the IWL, and do not necessarily reflect any determination made under CERCLA or this FFA as to the extent of contamination. Inclusion herein of the description of these Groups and SWMU's does not affect in any way the scope of the Agreement. These SWMUs were identified as a result of U.S Army investigations and EPA and State oversight. SWMUs identified by this Agreement as coming under CERCLA jurisdiction will henceforth be known as Source Areas. Attachment 4 to the Agreement is a map showing the locations of Operable Units (OUs), made up of Source Areas, and Groups, made up of SWMUs, where hazardous substances, pollutants, and contaminants may have been disposed, based on current information and as currently located at TEAD-N. As additional investigative work continues, other SWMUs and/or Source Areas where hazardous substances, pollutants, and contaminants may have been disposed of may be discovered or defined. A brief description of the SWMUs and Source Areas in their respective Groups and Operable Units is as follows:

#### GROUP 1

Group 1 is located in the northeast area of TEAD-N and consists of the Industrial Wastewater Lagoon (SWMU 2).

Industrial Wastewater Lagoon (SWMU 2). Between 1965 and 1988, the Industrial Wastewater Lagoon (IWL) received industrial wastewater from the Maintenance Area. The IWL consisted of an unlined evaporation lagoon (approx. 200 feet by 400 feet) and four unlined conveyance ditches that tie into a main ditch which extends approximately 1.5 miles from the outfalls near the Maintenance Area to the lagoon. Wastewater originated from metal cleaning and stripping, sandblasting, steam cleaning, boiler plant waters, dynamometer test cells, solvents, paint, photographic chemicals, overflow-containing oils, spillage, and leaks. Wastewater samples collected in 1982 contained several volatile organic compounds, phenolic compounds, and explosive compounds. Subsurface soil, sludge, and ground water samples have shown numerous contaminants from the wastewater. Trichloroethylene (TCE) has been detected frequently in samples and is of primary concern at this SWMU. A TCE plume which covers approximately 1,700 acres and includes 36 billion gallons of ground water extends to approximately the northern TEAD-N boundary. A two-stage cleanup for closure of the conveyance ditches and the IWL was completed in 1989. Ground water modeling and ground water treatment pilot studies for the IWL ground water plume have been completed. Pump and treat technology is the selected method of cleanup for the ground water. A contract to implement this method was awarded in March 1991.

## GROUP 2

Group 2 consists of the X-Ray Lagoon (SWMU 3), the TNT Washout Facility (SWMU 10), the Laundry Effluent Pond and Sewage Pond (SWMU 11), the Pesticide Disposal Area (SWMU 12), the Sanitary Landfill (SWMU 15), the Battery Pit (SWMU 24), the Battery Shop (SWMU 25), and the Old Industrial Waste Lagoon (SWMU 30). The SWMUs in Group 2 includes PCP SWMUs at TEAD-N, with the exception of SWMU 2 in Group 1, designated in the PCP as known releases of hazardous substances, pollutants, or contaminants. These SWMUs are scattered throughout the TEAD-N property.

X-Ray Lagoon (SWMU 3). The X-Ray Lagoon was constructed in 1974. The earthen sides and bottom were originally covered with a plastic sheeting, however, the integrity of the sheeting is unknown. Discharge to the X-Ray Lagoon ceased in January 1990. Prior to then the lagoon accepted diluted spent developer and fixer solutions from the Film Processing Building (Building 1223). Before discharge ceased, the lagoon contained approximately 3 feet of liquid. The chemicals that had been discharged to the lagoon included aluminum sulfate, sulfuric acid, hydroquinone, potassium hydroxide, acetic acid, and glutaraldehyde. Liquids that have been discharged to the lagoon have evaporated, or have infiltrated subsurface soil.

TNT Washout Facility (SWMU 10). The TNT Washout Facility includes Building 1245 and a series of related ponds. Building 1245 has operated as a bomb decommissioning facility since 1948. Operations at this facility consisted of cutting the munitions casings, removing and recycling explosive material in the casings, and rinsing the casings with water or steam to remove explosive residues. Rinse water was directed to evaporation/percolation (E/P) ponds north of the main washout building. Several old unlined E/P ponds were covered with a PVC liner and clean soil in 1984. The old E/P ponds were proposed for designation as a National Priority List Site (NPL) in January 1985 and placed on the NPL in 1990. Chemicals of concern for ground water and subsurface soils include methylene chloride, acetone, nitrate/nitrite, and several explosive compounds. A new unlined pond was installed northeast of Building 1245 between 1984 and 1985. The new pond was used in conjunction with a charcoal filtration system located in Building 1245 that is used to pretreat rinse water prior to discharge. The new pond is no longer used.

Laundry Effluent Pond and Sewage Pond (SWMU 11). This SWMU includes one active Laundry Effluent Pond (north pond) and one inactive Sewage Pond (south pond). Both of these ponds are located north of the TNT Washout Building (Building 1245). A septic tank also exists south of the Sewage Pond. Water was observed bubbling up in the center of the Sewage Pond during a 1984 Site visit. This pond may be a source of ground water

contamination. The active Laundry Effluent Pond accepted discharge from the laundry and showers in Building 1237 until April 19, 1990. Chemicals of potential concern at this site include nitrate/nitrite and sulfate.

Pesticide Disposal Area (SWMU 12). The Pesticide Disposal Area reportedly ceased being used in 1982 or 1983, but was not identified until 1987. Disposal operations consisted of emptying drums containing small amounts of pesticides into a trench, so empty drums could be disposed of. The Pesticide Disposal Area is believed to be within the area of the Sanitary Landfill (SWMU 15), but the location has not been specified. There is potential for soil and ground water contamination.

Sanitary Landfill (SWMU 15). The Sanitary Landfill is partially located in an arroyo with slopes that are reported to be unstable. A wide variety of wastes, including hazardous wastes, hazardous substances, pollutants, and contaminants have been buried in the Sanitary Landfill. No records exist detailing what has been disposed in the landfill, but interviews with TEAD-N personnel have indicated the presence of empty paint and stripper containers, garbage, spent ethylene glycol, scrap wood, battery acid containers, pesticide and herbicide containers, plastic-bagged asbestos-contaminated materials, hydrogen cyanide salts, and boiler fuels and residues. Identified potential chemicals of concern for ground water are TCE, 1,2-dichloroethylene, benzene, cyclonite, and silver. Elevated levels of hydrocarbons have been detected in several nearby ground water monitoring wells. Potential chemicals of concern for subsurface soil are bis(2-ethylhexyl) phthalate and nickel.

Battery Pit (SWMU 24). This SWMU includes the Battery Pit and Building 507. Building 507 was used for the maintenance and repair of automotive batteries until 1980; it is currently used for maintenance and repair of vehicles and heavy equipment. Sometime around 1980, battery maintenance activities were moved to Building 1252 (the Battery Shop-SWMU 25). Electrolyte from lead-acid batteries was routinely discharged through a floor drain in Building 507 into the Battery Pit (8 feet wide by 12 feet long by 8 feet deep) located southeast of the building which was filled with lime. The floor drain has not been removed from this building and it presumably continues to function as an inlet for liquid discharge to the Battery Pit. The battery pit is currently covered with asphalt. Potential contaminants of the subsurface soil and ground water include lead, chromium, and cadmium.

Battery Shop (SWMU 25). The Battery Shop occupies Building 1252 with activities beginning at this SWMU in 1980. The shop is used for maintenance and repair of vehicle and forklift batteries. From the beginning of activities at the SWMU until August 1990, the discharge stream generated in the facility, which consisted

of spent battery acid and washdown water, was discharged into a ditch and onto the ground surface northeast of the building. Beginning in 1982, the spent battery acid and washdown water generated in the facility were neutralized with sodium bicarbonate or sodium hydroxide. The shop floor was washed down daily, using sodium bicarbonate, and discharged as described above. Rags and mops used for cleanup activities and accumulated sludge were disposed of in the Sanitary Landfill (SWMU 15). In July 1986, analysis showed hazardous waste constituents in the acid (prior analysis did not show hazardous waste constituents). At that time TEAD-N began drumming the waste battery acid for disposal as a hazardous waste. In August 1990, the floor washdown water ceased being discharged into the ditch and onto the ground surface. At the present time, the wastewater is being containerized and disposed of at the Industrial Waste Treatment Plant. Old and damaged batteries and the drummed acid from those batteries are presently transported off the TEAD-N site for recycling and/or disposal. Surface and near surface soils are potentially contaminated with cadmium, chromium, and lead.

Old Industrial Waste Lagoon (SWMU 30). The Old Industrial Waste Lagoon (IWL) consists of a gravel pit, some areas of standing liquid and groundstaining, and several unlined ditches identified on aerial photographs dated pre-1965. Some of the Old IWL areas have been paved for roads. The IWL (SWMU 2), which was partially remediated in 1988-1990, consisted of a series of ditches intermingled with the Old IWL ditches. IWL ditches are distinguishable from Old IWL ditches on aerial photographs dated post 1965. Fluids discharged to the Old IWL infiltrated subsurface soil. Ground water, surface and subsurface soils in the Old IWL potentially contain volatile and semi-volatile organic compounds, explosives, and metals.

### GROUP 3

Group 3 consists of the following SWMUs: the Open Burning/Open Detonation Area (SWMU 1), the Cluster Bomb Detonation Area (SWMU 1a), the Propellant Burn Pad (SWMU 1b), the Trash Burn Pits (SWMU 1c), the Sandblast Area (SWMU 4), the Sewage Lagoons (SWMU 14), the Ammunition Equipment Directorate Demilitarization Test Facility (SWMU 19), the Ammunition Equipment Directorate Deactivation Furnace SWMU (SWMU 20), the Deactivation Furnace Building 1320 (SWMU 21), the Defense Reutilization and Marketing Office (DRMO) Storage Yard (SWMU 26), the RCRA Container Storage Area (SWMU 27), the 90-day Container Storage Area (SWMU 28), the Drum Storage Areas (SWMU 29), the Pesticide/Herbicide Handling and Storage Building (SWMU 34), the Contaminated Waste Processor (SWMU 37), the Industrial Wastewater Treatment Plant (SWMU 38), the Solvent Recovery Facility (SWMU 39), the Bomb Washout Building (SWMU 42), Container Storage for P999 (SWMU 43), the Tank Storage of TCE (SWMU 44), and the Stormwater Discharge Area (SWMU 45). The SWMUs in this operable unit include PCP SWMUs at

TEAD-N, designated with suspected releases of hazardous substances or wastes. These SWMUs are scattered throughout the TEAD-N property. Since unexploded ordnance (UXO) and/or explosive hazards are potentially present for some SWMUs in this operable unit, UXO subcontractor support may be required for Site access, sampling, and geophysical surveying.

Open Burning/Open Detonation Area (SWMU 1). This area includes several large craters in which all types of munitions, from small arms ammunition to 12,000-pound bombs, have been detonated. Currently, the area is also used for burning propellants in eight propellant burn pads. Potential contaminants of the soil and ground water may include cadmium, barium, mercury, and explosive compounds.

Cluster Bomb Detonation Area (SWMU 1a). This area includes several open craters used to open detonate cluster bombs. Potential contaminants of the soil and ground water may include cadmium, barium, mercury, and explosive compounds.

Propellant Burn Pad (SWMU 1b). The Propellant Burn Pad is a 90-by-300-foot pad where propellant and flash projectiles were burned in the open until 1977. Potential contaminants of the soil and ground water may include cadmium, barium, mercury, and explosive compounds.

Trash Burn Pits (SWMU 1c). The Trash Burn Pits were believed to be used until 1977 for open burning of explosive contaminated wastes. Wastes were burned in both pits and trenches. Potential contaminants of the soil and ground water may include cadmium, barium, mercury, and explosive compounds.

Sandblast Area (SWMU 4). The Sandblast Area is located in Building 615. Sandblasting, paint-stripping, and painting of parts and equipment are performed at this SWMU. During sandblasting operations, two types of sandblast material (i.e., steel grit and ground walnut shells) are used separately and are reused until they lose their effectiveness. The spent material has a consistency of fine dust which is collected in hoppers for temporary storage prior to removal and off-Site disposal by a hazardous waste contractor. The sandblast dust may have concentrations of cadmium which exceed the EP Toxicity maximum concentration specified by EPA for characterizing a waste as hazardous. Paint stripping solutions include phosphoric acid, hydrochloric acid, and sodium hydroxide solutions. The drummed stripping wastes and spent TCE from degreasing operations are removed by a hazardous waste contractor. The paint booths in the building produce paint wastes which are collected and removed by a hazardous waste contractor. There is potential for soil and ground water contamination.



Sewage Lagoons (SWMU 14). Past records indicate the Sewage Lagoons have received domestic sewage from housing, warehouses, maintenance, and administrative areas since 1974, however, contaminants found here indicate they also received industrial waste. The sewage lagoons are currently in use; discharges to the pond evaporate, or may percolate to subsurface soil through or over the native clay liner. The first pond is usually full (approx. 4 feet deep), and the second pond is usually dry, as it was designed to accept overflow. Chemical analysis of the lagoon water indicates the presence of phenol, zinc, and cyanide. Sampling and analysis of ground water detected metals, volatile organic chemicals, radiation and hydrocarbons in both up-and downgradient wells.

Ammunition Equipment Directorate Demilitarization Test Facility (SWMU 19). This SWMU includes experimental or pilot plant operations intended to determine if new-design demilitarization equipment is functional. Live ammunition and propellants are used. The potential exists for concentrated explosives in soil at this SWMU.

Ammunition Equipment Directorate Deactivation Furnace SWMU (SWMU 20). This SWMU consists of three furnaces housed in separate buildings and surrounding areas of contamination. The Deactivation Furnace housed in Building 1352 has been used since 1970 for the destruction of high explosive-filled projectiles and grenades, propellants, boosters, fuses, white phosphorus rockets, and bulk explosives. The Flashing Furnace housed in Building 1356 has been used since 1976 for burning residuals remaining on munitions shell casings after treatment in the deactivation furnace. Ash and dust from the two furnaces are presently drummed and analyzed for disposal as a characteristic hazardous waste because of cadmium, chromium, and lead content. Soil surrounding the furnace buildings and ground water is potentially contaminated with metals.

Deactivation Furnace Facility - Building 1320 (SWMU 21). The Deactivation Furnace Facility (Building 1320) was constructed in 1955 for the purpose of deactivating small arms ammunition, primers, and fuses. The SWMU consists of a large roofless building (Building 1320) holding a rotary kiln and adjacent staging area for temporary storage of munitions prior to incineration. Soils beyond the paved area surrounding the building are potentially contaminated with heavy metals.

Defense Reutilization and Marketing Office (DRMO) Storage Yard (SWMU 26). The DRMO Storage Yard is an unpaved, unfenced 60-acre salvage yard that is currently used for the temporary storage of wastes and surplus material. Paint, chemicals, batteries, scrap metal, empty drums, waste oil, and ammunition crates are stored on the property. This SWMU became an active storage area between 1953 and 1959. Surface and subsurface soils and ground water are

potentially contaminated with mercury, PCBs, volatile and semi-volatile organic compounds, and metals. Aerial photographs of this SWMU over several years show ground staining and open waste piles.

RCRA Container Storage Area (SWMU 27). The RCRA Container Storage Area is a fenced lot surrounding Building 528 that is a RCRA-permitted facility for the long-term storage of hazardous waste generated at TEAD-N. There are approximately 900 55-gallon drums containing a variety of wastes stored in Building 528. The containerized wastes are segregated into four separate areas depending upon their chemical characteristics. The inside perimeter of the building is completely surrounded by a concrete berm to contain hazardous materials spills. All of the four storage areas inside the building are connected to a PVC external drain pipe which extends through the outside perimeter wall of the building; the ends of each drain pipe are closed by brass spigots. However, there is potential contamination outside the building from past practices. Labeled drums observed during a 1989 visit to the SWMU included industrial waste sludge, fuels, solvents, detergents, paint sludges, soluble oil coolant, and thinners.

90-Day Drum Storage Area (SWMU 28). The 90-Day Drum Storage Area is a 3.4 acre fenced lot with a gravel surface located immediately east of the Sanitary Landfill (SWMU 15). Aerial photographs indicate that drums were not stored on this SWMU until 1983. There is potential for soil and ground water contamination. Currently, drummed substances on this SWMU include gasoline, sodium hydroxide, phosphoric acid, paint wastes, solvents, paint thinners, and blast grit. Drums remain sealed and are stored on pallets for periods up to 90 days before they are moved to a hazardous waste management facility by a contractor or to the permanent storage facility in Building 528 (the RCRA Container Storage Area-SWMU 27).

Drum Storage Area (SWMU 29). The Drum Storage Area was used to store drums prior to returning the drums to the original contractor. Frequently, drums containing residual solvents, degreasers, or oils were stored at this SWMU upside down to empty the residual contents and to keep precipitation out. Potential chemicals of concern for subsurface soils are silver, arsenic, beryllium, chromium, copper, nickel, lead, and zinc. Potential chemicals of concern for ground water include bis(2-ethylhexyl) phthalate, mercury, and selenium.

Pesticide/Herbicide Handling and Storage Building (SWMU 34). This SWMU occupies Building 518 and surrounding area in the Industrial Area. The building has been used since 1942 to store herbicides and pesticides such as DDT and Round-Up. Pesticides and herbicides are stored in separate vented, locked rooms of the building. A mixing/formulation area for the chemicals is located

in the same building, but is separated from the storage area by bermed concrete. Previously, floor drains accepted spilled pesticides or herbicides, and transported the fluids 3,000 feet through an underground pipe to SWMU 45. A second outfall pipe discharges fluids of unknown composition to a gravel sump surrounding the building. Fluids have been observed flowing from both outfall pipes. Surface and subsurface soil and ground water may be contaminated with pesticides and herbicides.

Contaminated Waste Processor (SWMU 37). The Contaminated Waste Processor has been used since 1985 for flashing scrap metal and incinerating pentachlorophenol (PCP)-treated wooden crates, dunnage, and fabric contaminated with trace explosives. The incineration of hazardous waste was prohibited pursuant to a UDEQ order, after an inspection, because it was being used to burn waste determined by UDEQ to be a characteristic hazardous waste. Floor sweepings, dust, and ash collected from the processor, and soil surrounding the building may be contaminated with lead and cadmium.

Industrial Wastewater Treatment Plant (SWMU 38). The Industrial Wastewater Treatment Plant accepts approximately 100,000 gallons of wastewater daily. Treatment at the plant includes air stripping, flocculation, clarification, sand filtration, and activated carbon. Spent activated carbon from open bins is transported by wind to the surrounding unpaved ground surface. Surface soil is potentially contaminated with volatile and semi-volatile organic chemicals and metals.

Solvent Recovery Facility (SWMU 39). The Solvent Recovery Facility, located in Building 600C, was constructed in 1988 and includes surrounding storage areas. Spill containment devices are provided in the building. Approximately 10,500 gallons of waste solvent are distilled annually. The building contains pumps, a distillation unit, a condenser, and associated equipment. The building floor is equipped with drains which direct spills to the Industrial Wastewater Treatment Plant (SWMU 38). The ground surface surrounding the facility is paved. Drummed wastes are temporarily stored outside the building for future off-site disposal by a hazardous waste contractor. A spill containment berm for the outside storage area was scheduled for construction during fiscal year 1990.

Bomb Washout Building (SWMU 42). This facility was located in Building 539 and was used from 1942 to the early 1960s to burn small arms projectiles. Lead was retrieved during the process, but may have splattered onto the floor of the building. The floors were washed down and wastewater allowed to discharge through a concrete flume to a culvert, eventually emptying into a ditch on the northwest side of the building, then into a holding pond. The pond area is now covered with sagebrush. Recent analysis of pond-area soil samples were found to contain barium,

chromium, cadmium, silver, lead, mercury, and nickel. There is potential for ground water contamination.

Container Storage for P999 (SWMU 43). This SWMU consists of Igloos B1002, C117, G308, G1005, and K202. A number of M-55 motor parts were stored in these igloos for an unknown period of time. These motor parts are obsolete and have been moved to TEAD-S where they are stored in a RCRA Permitted area.

Tank Storage of TCE (SWMU 44). This SWMU is located in a small portion of Building 620. The SWMU consists of a TCE degreaser unit that was removed from service in about 1985. TEAD-N personnel reported that the sludge in the bottom of the degreasing unit was removed.

Stormwater Discharge Area (SWMU 45). SWMU 45 consists of two small ponds at the outfall of the Facilities Engineering stormwater-discharge Pipe, and undefined portions of the wash floodplain between the outfall and the road (West Maintenance & Supply Road) to the Landfill (SWMU 15). Samples have been taken from the "ponds", but not from the wash-floodplain soils. Past storm events may have spread surface water and sediment contamination to the West Maintenance Road. Percolation into the vadose zone beneath the wash floodplain is likely and may have reached the ground water.

Used Oil Dumpsters (SWMU 46). This SWMU has 14 locations; buildings 507, 509, 510, 511, 522, 600, 602, 607, 611, 619, 620, 621, 637 and 691. At buildings 600, 607 and 637 there are 2 used oil dumpsters. The remaining buildings have one oil dumpster. Oil is generated from the overhaul of engines and various equipment. Sampling and chemical analysis of the used oil dumpsters has been completed. The oil contains hazardous constituents. A contractor removes the used oil from the dumpsters on a regular basis.

Boiler Blowdown Buildings (SWMU 47) This SWMU has three locations; buildings 606, 610, and 637. All SWMU locations are located in the TEAD-N Maintenance Area. TEAD-N relies on steam for heating the buildings. These boilers provide that source of steam. During boiler plant operation a blowdown period occurs which produces small amounts of blowdown water. During this process a natural plant-derived compound called tannin is used to reduce scale build up inside the boiler.

#### OPERABLE UNIT #4

Operable Unit #4 is located in the southeast area of TEAD-N, west and south of the Maintenance Area, and is comprised of the Wastewater Spreading Area (Source Area 35).

Wastewater Spreading Area (Source Area 35). The Wastewater Spreading Area consists of several unlined ditches leading to a ravine with channels cut through the ravine. Currently, the ditches are no longer visible. Wastewater discharged to the ditches from an adjacent on-site housing area was allowed to percolate, infiltrate, and evaporate. It is not known if the wastewater discharged to this area originated from sources other than the residential complex. Potential contaminants in the soil from the wastewater may include volatile and semi-volatile organic compounds, metals, and nitrates.

#### OPERABLE UNIT #5

Operable Unit #5 is located near the midpoint of the eastern boundary of TEAD-N, in the northern portion of the Maintenance Area. This operable unit consists of the Transformer Storage Area (Source Area 17), the Former Transformer Boxing Source Area (Source Area 31), the PCB Spill Site (Source Area 32), and the PCB Storage Building (Source Area 33).

Transformer Storage Area (Source Area 17). The Former Transformer Storage Area, located on Open Storage Lot 675B is approximately 5 acres in size, is unpaved, graveled, graded, and includes a drainage ditch which collects stormwater runoff from the adjacent road parallels the northern edge of the Storage Area. Until 1979, this Source Area was used for the storage of thousands of polychlorinated biphenyl (PCB)-containing transformers and capacitors. In 1979, all PCB-and non-PCB containing transformers were removed for proper disposal or transferred to Building S-659 for storage (the PCB Storage Building - Source Area 33). The Former Transformer Storage Area is currently used for open storage of vehicle-related equipment. Relatively low levels of PCBs have been detected on this Source Area.

Former Transformer Boxing Area (Source Area 31). The Former Transformer Boxing Area was located on Open Storage Lot 680. This Source Area is located approximately 400 feet east of the Transformer Storage Area (Source Area 17 - Lot 675B) and used for the temporary storage of transformers originally stored at Lot 675B until 1979 or 1980 when the transformers were either moved to Building 659 or properly disposed. The Source Area was not used for long-term storage of transformers. The soil at this Source Area may potentially be contaminated with PCBs.

PCB Spill Site (Source Area 32). The PCB Spill Site is located in the southern corner of Open Storage Lot 665D. In October 1980, a transformer oil spill occurred at the southwest corner of Lot 665D. Two transformers, containing a total of 1,000 gallons of PCB-containing oil were punctured with a fork lift blade during removal operations. The spill reportedly covered less than one-half acre of unpaved ground surface. Cleanup of the

contamination involved excavation of soils saturated with oil and disposal of drummed wastes. The excavation measured approximately 50 by 70 feet and was between 8 and 10 feet deep. In 1987, a site investigation was conducted to confirm that remaining soils were not contaminated. A total of 5 samples were taken and it was concluded that the analyses were well below the TSCA spill cleanup standard of 10 ppm.

PCB Storage Building (Source Area 33). This Source Area occupies most of Building S-659 which is a TSCA-permitted facility used to store PCB transformers and drums containing PCB-contaminated soil and protective clothing. The building has a sealed cement floor and a perimeter berm to contain oil spills. Storage of transformers and drums containing PCBs began in 1979 after closure of other open storage PCB sites. During a Site visit in 1989, there were approximately 6,000 transformers and 15 drums stored in the building. Spills of PCB oils have occurred in the building but records indicate that they have been contained and cleaned up. The ground surface surrounding the building is paved.

#### OPERABLE UNIT #6

Operable Unit #6 is also located near the center of the eastern boundary of TEAD-N, in the northern portion of the Administration Area. This operable unit consists of the Drummed Radioactive Waste Storage Area (Source Area 9) and the Radioactive Waste Storage Building (Source Area 18).

Drummed Radioactive Waste Storage Area (Source Area 9). This area includes a concrete pad and field area was used only for temporary storage of a single 55-gallon drum containing low-level radioactive waste. The drum was stored for a number of years near a concrete pad southwest of Building S-753, then moved to a field northwest of Building S-753. In 1978, the drum was removed for off-site disposal by the TEAD-N Radiation Protection Office. The drummed wastes included radioactive transmitting tubes that were used to generate microwaves for radar systems. Other low level radioactive wastes also stored in this drum may have included speedometers, luminous watch dials, contaminated tools, decontamination materials, cabinets, drawers, and shelves. Most of the isotopes potentially stored at the two areas of this Source Area are reported to have relatively short half-lives, small detection ranges of alpha particle emissions, or low beta and gamma energy levels.

Radioactive Waste Storage Building (Source Area 18). The Radioactive Waste Storage Building is located in the northwest corner of Building S-659 (the PCB Storage Building - Source Area 33), which has been or is also used for storage of PCB-contaminated soil and transformers. Building S-659 is a Nuclear Regulatory Commission licensed facility and has been used

to store radioactive material for approximately 7 years. This area is licensed to store depleted uranium wastes. The building has a bermed concrete floor. The storage area is enclosed and contains low-level radioactive materials such as radiation detection meters, compasses, sights, range finders, and radioactive luminous compounds. Wastes are stored in DOT-approved containers. No known radioactive releases have occurred.

#### OPERABLE UNIT #7

Operable Unit #7 is located near the center of the south boundary of TEAD-N. This operable unit consists of the PCB Pole Spill (Source Area 5), the Old Burn Area (Source Area 6), the Chemical Range (Source Area 7), the Tire Disposal Site (Source Area 13), and the Old Burn Staging Area (Source Area 36). Since UXO and/or explosive hazards are potentially present for some Source Areas in this operable unit, UXO subcontractor support may be required for Site access, sampling, and geophysical surveying.

PCB Pole Spill (Source Area 5). As a result of a fire in 1976, PCB-containing oil leaked from a transformer located on utility pole No. 184. Excavation of eleven 55-gallon drums of soil at the spill location removed the majority of soil contaminated by PCBs. The 11 drums of excavated soil that were stored near the utility pole have been moved to Building 659. Composite sampling of excavated soil showed Aroclor 1260 contamination. No sampling has been conducted on remaining in-place soil. Low levels of Aroclor 1260 may remain in the soil.

Old Burn Area (Source Area 6). The Old Burn Area was used until the 1970s for the testing of hydrocarbon-filled smoke munitions, fuses, and propellants. Previous geophysical surveys detected the presence of buried metal wastes. Chemical analysis of subsurface soils in the areas adjacent to the buried metal wastes detected explosives, metals, and anions. Fluoride, arsenic, beryllium, cadmium, chromium, copper, sodium, nickel, and lead were all detected in soils.

Chemical Range (Source Area 7). Chemical and pyrotechnic-type munitions, excluding agent-filled munitions, were tested and disposed of at this Source Area. Munitions tested include flares, smoke grenades, smoke pots, projectiles, incendiary items such as bombs, pouch and document destroyers, riot-control agent-filled munitions, and flame thrower igniters. Geophysical surveys identified buried metals waste at this Source Area. Chemical analysis of surface soils for explosives, metals, and anions detected low concentrations of metals, specifically nickel and zinc.

Tire Disposal Site (Source Area 13). The Tire Disposal Source Area is located in a ravine area formerly used for gravel mining. Unreclaimable tire carcasses from TEAD-N vehicles have been disposed of at this Source Area since 1965. The tires are dumped on the ground surface in a ravine area, and the accumulated pile of tires is periodically covered with gravel. Over 20,000 tires are estimated to have been dumped over 5 acres at the Source Area. The tires are assumed to be primarily rubber, with nylon, steel, cloth, polyester, or other fabrics used in tire construction. Other constituents typically found in tires are sulfur and sulfur compounds, styrene-butadiene, polybutadiene, vinylcyclohexane, isoprene, clay, phenolic resin, oil, petroleum waxes, pigments, carbon black, fatty acids, and inert materials.

Old Burn Staging Area (Source Area 36). The Old Burn Staging Area consists of a pit that was intended to store items to be tested at the Old Burn Area (Source Area 16). Using aerial photographs, trenches were observed in the bottom of the pit and the pit appeared to have a dark liquid coating its rim. No records are available concerning material staged or disposed of in the pit. No analytical data are available for soil or ground water at the Source Area. The pit, 8 to 13 feet in depth, was excavated in gravels and is still visible.

#### OPERABLE UNIT #8

Operable Unit #8 is also located in the southwest area of TEAD-N. This operable unit consists of Building 1303 Washout Pond (Source Area 22) and the Bomb and Shell Reconditioning Building (Source Area 23). Since Unexploded Ordnance (UXO) and/or explosive hazards are potentially present for some Source Areas in this operable unit, sampling, UXO, and geophysical work may be required.

Building 1303 Washout Pond (Source Area 22). Bombs and projectiles were disassembled in Building 1303 to determine the loading characteristics of these high explosives. The Building 1303 Washout Pond accepted washwater from washing down the interior of the building. The pond is presently dry and it is not readily discernible. No environmental sampling data are available for this Source Area.

Bomb and Shell Reconditioning Building (Source Area 23). Little information is available concerning this Source Area. Operations in the Bomb and Shell Reconditioning Building (Building 1345 - constructed in the late 1950s) consisted of external work on large munitions, primarily sandblasting and painting. Explosive compounds may have been released to surface soils near a concrete pad on the southeast side of the building (there is a large area of stained soil located in that area) and from the internal floor drain system to a ditch that parallels the road in front of the building. This release may have resulted in contaminated soil



and ground water. Volatile organic compounds are also potentially present. The building has not been used since 1986.

#### OPERABLE UNIT #9

Operable Unit #9 is located adjacent to the western boundary of TEAD-N. This operable unit consists of the Small Arms Firing Range (Source Area 8), and the Ammunition Equipment Directorate Test Range (Source Area 40). Since UXO and/or explosive hazards are potentially present for some Source Areas in this operable unit, UXO, sampling, and geophysical work may be required.

Small Arms Firing Range (Source Area 8). This Source Area is a firing range for training in the use of small arms that is used by the National Guard, Army Reserve, Navy, and TEAD-N personnel. There are 20 firing stations on the range. Although the range is available for use 365 days a year, its use has reportedly amounted to only 3 to 10 days per year. Hazardous substances potentially present at this Source Area would include constituents of products from spent, small-caliber ammunition (i.e., lead and other metals).

Ammunition Equipment Directorate (AED) Test Range (Source Area 40). The AED Test Range was used for testing munitions including open detonation of white phosphorus and smoke-munitions, bomb-drop propagation, and conveyor spacing testing. Based on interpretation of aerial photographs, the range was operational from prior to 1953 until sometime after 1981. Several revetments are present at this Source Area as well as an area of approximately 20 shallow craters, a deep trench (probably covered) and three walls plus the foundation of a building. Contents of the revetments currently include sand-filled ammunition boxes, concrete blocks, steel plate and piping and shell casings. Revetments on the east side of the site access road appear to have minimal use. Surface and subsurface soils may be contaminated with explosives and/or metals near the craters, trench, and building foundation.

#### OPERABLE UNIT #10

Operable Unit #10 is located in the north central area of TEAD-N, within the Igloo Storage Area, between rows F and J, and consists of only the Box Elder Drum Site (Source Area 41).

Box Elder Wash Drum Site (Source Area 41). Twenty to thirty drums are situated in Box Elder Wash, a stream bed which carries intermittent runoff from the southwest corner of TEAD-N, north through the Igloo Storage Area, and across the north central TEAD-N boundary. The drums were observed in a 100 to 200-foot long stretch of the wash. The downstream extent of the Source Area is not known. Some of the drums contain a black tarry substance. TEAD-N identified detectable levels of inorganic and

organic compounds including barium, mercury, benzene, acetic acid, methyl phenanthrene, dimethyl phenanthrene, and polycyclic aliphatic hydrocarbons from samples of drum contents. A potential for soil, ground water, and surface water contamination exists at this Source Area.

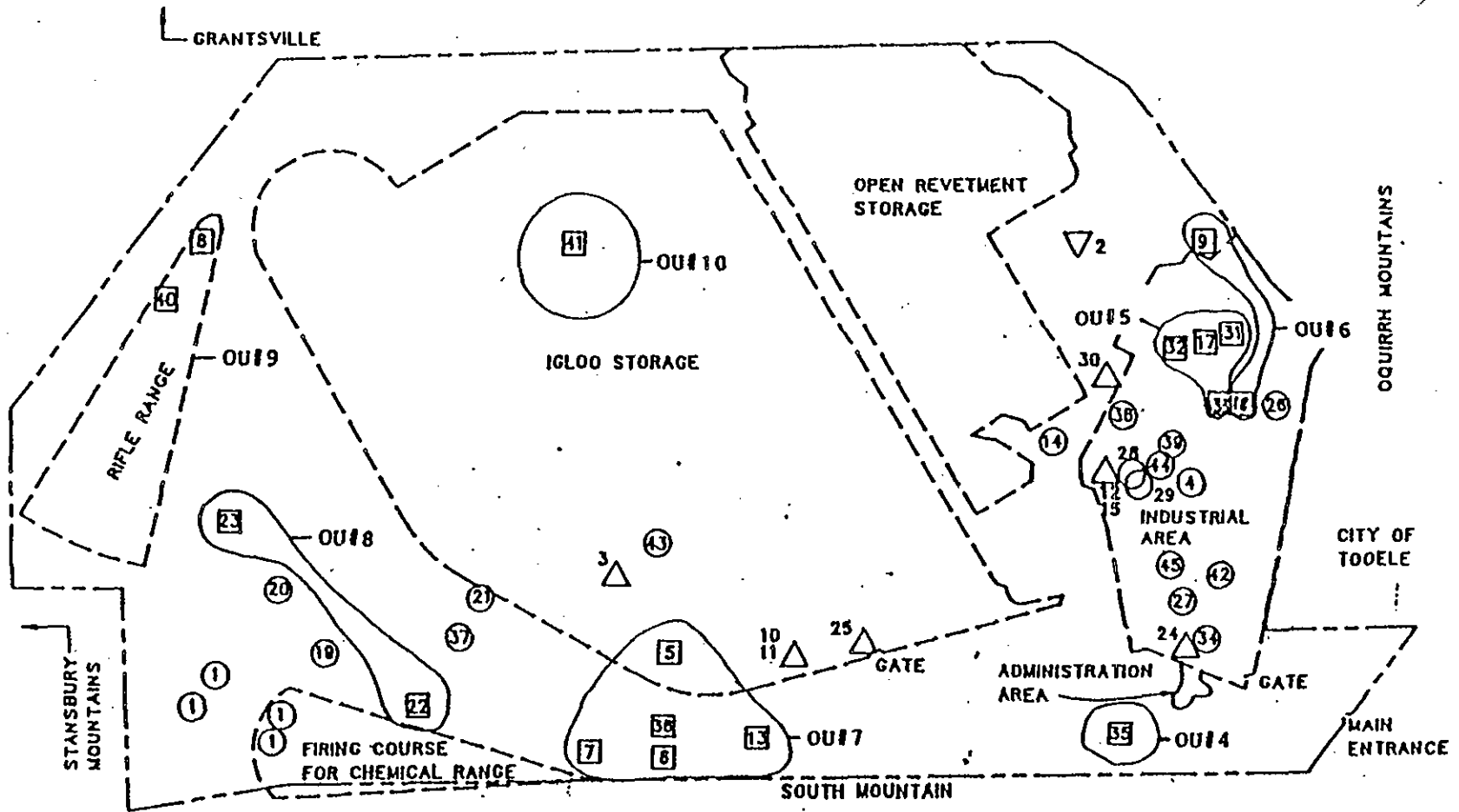
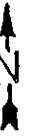
#### OPERABLE UNIT #11

This operable unit will consist of all new Source Areas that are determined to be within the scope of the Agreement and identified on TEAD-N during the life of this Agreement. Such new Source Areas are within the scope of this Agreement subject to all the terms and conditions of this Agreement. Operable Unit 11 does not consist of any Source Areas at the present time.

Attachment 4:

Map of TEAD-N Site/ Extent of Known Contamination

ATTACHMENT 4  
LOCATION OF TEAD-N GROUPS AND OPERABLE UNITS



LEGEND

- ▽<sub>2</sub> RCRA, KNOWN RELEASE.  
PERMITTED SWMU - GROUP #1
- △<sub>25</sub> RCRA, KNOWN RELEASE SWMU - GROUP #2
- ⊙<sub>37</sub> RCRA, SUSPECTED RELEASE SWMU - GROUP #3
- <sub>23</sub> CERCLA SOURCE AREAS - OPERABLE UNITS 4-10

----- PROPERTY LINE



TOOELE ARMY DEPOT, NORTH AREA  
TOOELE, UTAH

ATTACHMENT 4  
GROUPS AND OPERABLE UNITS

Attachment 5:

Statement of Work

ATTACHMENT 5 - TEAD-N  
FEDERAL FACILITY AGREEMENT STATEMENT OF WORK

I.A. Introduction

Set forth in this document are the elements of work required to be performed to respond to all hazardous substance releases or threat of releases at or from the U.S. Army, TEAD-N National Priorities List (NPL) Site which may cause harm to human health or the environment. Work to be performed during the remedial investigation/feasibility study (RI/FS) phase of the response program is outlined for each Operable Unit (OU) established to date, including reports and other deliverable documents as required in Sections 8 and 10 of the Agreement. The purpose of the RI/FS is to investigate the nature and extent of contamination at a Source Area, assess the potential risk to human health and the environment, and develop and evaluate potential remedial alternatives.

Work to be performed and documents to be submitted pursuant to the remedial design/remedial action (RD/RA) phase activities of the response program are described only generally because specific work to be performed in the RD/RA phase is determined as a result of RI/FS activities. Reports and other deliverable documents pursuant to RD/RA activities will be included in and will be subject to the provisions of the Agreement.

All response activities performed by the U.S. Army will be consistent with CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), RCRA, and applicable State law, as specified in the Agreement. At a minimum, all response activities shall also be consistent with:

- Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, October 1988.
- Guidance on Preparing Superfund Decision Documents: The Proposed Plan and Record of Decision, March 1988.
- Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Third Edition as Amended, October 1986.
- Compendium of Superfund Field Operation Methods, September 1987.

- Superfund Public Health Evaluation Manual, October 1986.
- Community Relations in Superfund: A Handbook, Interim Final, June 1988.
- Risk Assessment Guidance for Superfund, Volume II- Environmental Evaluation Manual, Interim Final, March, 1989.
- Remedial Design and Remedial Action (RD/RA) Guidance, June, 1986.
- Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performance by Potentially Responsible Parties, Interim Final, April, 1990.
- Guidance on Expediting Remedial Design and Remedial Action, (Interim Final), June, 1990.
- CERCLA Compliance with Other Laws Manual: Draft Guidance, August, 1988. (Identified as interim final in the Part II Manual).
- CERCLA Compliance with Other Laws Manual: Part II. Clean Air Act and Other Environmental Statutes and State Requirements, Interim Final, August, 1989.

The most recent version of the above citations or other pertinent guidance published at least 120 days prior to the required submittal date for each document shall always be used.

While this Statement of Work (SOW) provides details on specific response requirements that must be met during the investigatory and study phase of the response process, it is incumbent upon the U.S. Army to perform all response activities in compliance and consistent with the Federal Facility Agreement (FFA), applicable laws, regulations and guidance. If there is a conflict between the SOW and the FFA, the FFA will control.

## I.B. General Response Procedures

- I.B.1. The guidance documents listed in Section I.A. describe the general response processes during the investigatory and study phase: 1) Preparing initial overview of the project scope, 2) Identification of hazardous substance release, or threats of release 3) Grouping the individual hazardous substance Source Areas into

Operable Units (OUs), 4) Characterizing the nature and extent of all releases, 5) Developing and screening remedial alternatives and performing treatability studies, 6) Determining the risks to human health or the environment posed by each release of hazardous substances, 7) Selecting and documenting remedies; and 8) Implementing the selected and documented remedies. These tasks will be documented in various primary and secondary documents, as described in Table 1 of this Attachment. The timetables and deadlines for submittal of primary and secondary documents are presented within Table 3 of this Attachment.

- I.B.2. Review and Comment on Draft and Final Reports. The review and comment procedures to be followed by the Parties for documents submitted after the effective date of the Agreement are described in Section 10 (Consultation) of the Agreement.
- I.B.3. Organization of Remedial Response. The U.S. Army has identified and investigated individual Source Areas from which a release or threat of release of hazardous substances which may cause harm to human health and/or the environment has been identified or suspected by the U.S. Army. These activities were conducted pursuant to the U.S. Army Installation Restoration Program (IRP). Source Areas known at the time of execution of the Agreement and whose investigation and remediation is within the scope of the Agreement are described in Table 2 which groups the Source Areas into Operable Units. Response actions for Source Areas discovered after the effective date of the Agreement will be subject to Section 8.4 of the Agreement.
- Source Areas within OU 8 will be investigated further, as they are identified. By agreement of the parties, any Source Areas within OU 8 may be placed within its own OU to expedite response actions for releases or threats of releases which may cause harm to human health and/or the environment.
- I.B.4. Notification. The U.S. Army will notify EPA and the Utah Department of Environmental Quality (UDEQ) of any newly identified Source Areas, including the presence of soil gas; air emissions; contaminated ground water, surface water, or soil; or any spills which may threaten human health or the environment. Pursuant to the Agreement, the U.S. Army will consult with EPA and UDEQ on the response actions the U.S. Army will undertake. Newly identified Source Areas that require a remedial response action will be placed into an operable unit (OU). Designation of the operable unit



may include defining a new operable unit or adding the Source Area to an existing operable unit. RI Workplans will be submitted or amended as appropriate.

I.B.5. For each OU, as provided in more detail below, the U.S. Army will characterize and determine the nature and extent of contamination, pursuant to a Workplan submitted and finalized pursuant to Section 10 (Consultation) of the Agreement. The characterization and determination of the nature and extent of contamination shall become part of a remedial investigation (RI). The U.S. Army will complete and submit Baseline Risk Assessments and shall also conduct treatability studies, and feasibility studies (FS) as agreed by the Parties.

I.B.6. Project Scoping. Prior to the development and submittal of the RI Workplans for each OU, any Party may request a meeting to be held between EPA, UDEQ and the U.S. Army. The purpose of the meeting is to discuss the requirements and agree on the content of the RI Workplans to be submitted for each OU. At the meeting, EPA and UDEQ shall consult with the U.S. Army on the requirements to be addressed within the RI Workplans. Following notification pursuant to I.B.4., the U.S. Army will develop and submit as a chapter of the RI Workplans, potential remedial action objectives, preliminary applicable or relevant and appropriate requirements (ARARs); and probable data quality objectives.

I.B.7. Investigatory Phase Documentation. Each OU will proceed through phases of investigation dependent on the information gathered to characterize the OU in preceding work. The RI and FS activities are interrelated and may be conducted concurrently so that the data collected in the RI influences the development of remedial alternatives in the FS, which in turn affects the data needs and scope of any treatability studies to be conducted.

The draft RI Workplans for all OUs will be submitted to EPA and UDEQ for review and comment pursuant to Section 10 (Consultation) of the Agreement. The U.S. Army will not commence any work under the Workplan(s) prior to finalization of the document pursuant to Section 10 of the Agreement, unless the Project Managers agree in writing. The results of the RI work for each operable unit will be documented within draft RI Reports. For each OU, the draft RI Reports will include a Preliminary Site Characterization, containing information, which is, at a minimum, in accordance with

Section V. of this Attachment. Subsequent phases of RI Workplans for all OUs will be submitted and reviewed consistent with the process identified in Section 10 of the Agreement for primary documents.

EPA and UDEQ will review these draft RI Reports in accordance with the provisions of Section 10 of the Agreement. If EPA and UDEQ determine that no further investigatory work is required for each OU, EPA and UDEQ shall accept the Draft Final RI Report as a Final RI Report for that specific OU. The investigatory phase for each OU will be considered complete after finalization of the RI Report pursuant to Section 10 of the Agreement.

The draft RI Reports will also recommend work to be performed for any necessary subsequent phases of investigation. Unless otherwise agreed by the Parties, an amendment to the Work Plan, Sampling and Analysis Plans, and Health and Safety Plan will be submitted to EPA and UDEQ to address the recommended work. The U.S. Army will not commence a subsequent investigatory phase, unless the Project Managers agree in writing, prior to finalization of the above documents pursuant to Section 10 of the Agreement.

I.B.8. Alternatives Analysis Documentation. For each OU, the U.S. Army will submit a draft Feasibility Study (FS) Report in accordance with the schedules within Table 3 of this Attachment. The reports will contain all information as outlined in Section VIII. of this Attachment. The alternatives analysis phase of each investigation will not be complete prior to finalization of a FS Report pursuant to Section 10 of the Agreement.

I.B.9. Remedy Selection Documentation. In accordance with the schedules within Table 3 of this Attachment, the U.S. Army will submit a Draft and Draft Final Proposed Plan (PP) for EPA and UDEQ review and comment for each OU for each remedial action in accordance with the schedules in Table 3 of this Attachment. The final Proposed Plan (i.e., finalized pursuant to Section 10 of the Agreement) will be subject to a minimum 30 day public comment period. The U.S. Army will submit a Responsiveness Summary for each OU, in accordance with the schedules within Table 3 of this Attachment for EPA and UDEQ review and comment. The U.S. Army will submit a draft Record of Decision (ROD) for EPA and UDEQ review and comment in accordance with the schedules within Table 3 of this Attachment. A draft ROD may be submitted concurrently with the Responsiveness Summary

with prior Agreement of the Parties, or will otherwise be submitted in accordance with the schedules in Table 3 of this Attachment. The draft final ROD, when finalized pursuant to Section 10 of the Agreement, will initiate implementation of the Remedial Design (RD) phase and the Remedial Action (RA) phase for each OU.

II. Community Relations Plan (CRP). The U.S. Army will prepare and submit a CRP as a primary document according to the schedules within Table 3 of this Attachment to EPA and UDEQ for review and comment in accordance with Section 10 (Consultation) of the Agreement. The CRP will be based on interviews with community members both on and off the facility and will provide an analysis of the affected communities. The CRP will document the community involvement history and issues of community concern and interest. The CRP will describe the techniques and procedures which will be utilized by the U.S. Army to address community concerns and interests, as identified through the interviews, and involve community members in various Site decisions.

The CRP preparation methods, elements, and a recommended format are included in Community Relations in Superfund: A Handbook (U.S. EPA, Interim, June 1988). The U.S. Army involvement in the CRP and this Agreement will be coordinated with EPA and UDEQ. The activities to be conducted under this plan, at a minimum, will be those mandated in CERCLA, and the NCP. Sections II.A through II.E summarize those activities.

II.A. Public Information Centers Information will be made readily available to the public to ensure meaningful participation. One mechanism for accomplishing this goal is the establishment of public information centers. Location(s) of the information centers will be as follows:

Tooele Army Depot  
Public Affairs Office  
T-1 Headquarters Building  
Tooele Army Depot, Utah 84074-5000  
(801) 833-3216

Tooele County Public Library  
47 E. Vine,  
Tooele, UT 84074  
(801) 882-2182

Grantsville City Public Library  
198 West Main St.  
Grantsville, Utah 84029  
(801) 884-3703

Marriott Library  
University of Utah  
327 S. Marriott Library  
Salt Lake City, Utah 84112  
(801) 581-6273 (Library Information)  
(801) 581-8864 (Special Collections)

Pursuant to Section 25.3 of the Agreement, the Tooele County Public Library will also serve as a second repository for the Administrative Record (AR). All final primary documents as listed in Table 1 of this Attachment will be sent by the U.S. Army to the information center(s) and AR repository at the time they become final. In addition, copies of documents when submitted for public comment will be placed in the information centers. A copy of the AR File Index will also be included at the information center(s). The AR index will be updated quarterly by the U.S. Army. Any additional information or documents will be placed in information centers by the U.S. Army in a timely manner as deemed necessary by EPA, UDEQ, and the U.S. Army.

#### II.B.

##### Mailing Lists and Information Updates

The U.S. Army will establish and periodically update a TEAD-N mailing list of interested community members, interest groups, local, state and federal officials, media, and other parties requesting the information. Updated copies of the mailing list will be provided to EPA and UDEQ on a quarterly basis and otherwise upon request. EPA, UDEQ, or the U.S. Army may periodically distribute information in the form of a direct mailing to those persons on the U.S. Army TEAD-N mailing list. Any person's name may be added to the TEAD-N mailing list by contacting the TEAD-N community involvement coordinator for the U.S. Army.

Direct mailings will usually be in the form of a news release, fact sheet, or public information update. Information updates are a summary of the status of completed, ongoing, or upcoming activities. In some instances, fact sheets or public information updates will be used in conjunction with a public notice (newspaper or radio) to announce an event such as a public meeting, a public hearing, or a formal comment period on a certain document. All direct mailing documents will specify the point of contact for the

U.S. Army, EPA, and UDEQ for the public to request additional information.

Any Party initiating a direct mailing regarding or affecting any of the work required by the Agreement will advise the other parties of such mailing and the contents thereof at least two working days before the issuance of such a mailing, except in the case of emergency response action at TEAD-N.

II.C. News Releases Any party issuing a formal news release to the media regarding any of the work required by the Agreement will advise the other parties of such news release and the contents thereof at least two working days before the issuance of such a news release, except in the case of emergency response actions at TEAD-N.

II.D. Public Meetings The opportunity for at least one public meeting will be provided during the public comment period on each Proposed Plan. The meetings will be held in accordance with the schedule in Table 3 of this Attachment of the attachment. The U.S. Army will arrange for the public meetings and will place a public notice display advertisement in at least one newspaper of general circulation in the area. Where applicable with RCRA requirements, the U.S. Army will also announce meetings on at least one major radio station in the area.

The U.S. Army will arrange for a court reporter to prepare an official transcript of all Proposed Plan public meetings. The court reporter will provide a written record of the meeting for review by EPA, UDEQ, and the TEAD-N project managers and community involvement staff within 14 days following the meeting.

All public meetings will be held in Utah, in the vicinity of TEAD-N. The parties may decide to hold additional public meetings at other locations.

The U.S. Army will distribute the Proposed Plans and notice of public comment periods and public meetings through direct mailings to everyone on the Site mailing list at least seven days prior to the beginning of the public comment periods.

All public comments received and the U.S. Army's response to comments, along with the official transcripts of Proposed Plan public meeting will be placed in the Administrative Record file and in the Information Centers for the Site. Additionally, copies of all public comments, responses of the U.S. Army

and/or the official meeting transcript will be made available, by the US Army, to any person upon written request to any of the community involvement contacts within EPA, UDEQ, or the U.S. Army. Copy charges may be required of persons interested in obtaining additional copies. Public notice of the availability of the documents will be published by the the U.S. Army in a display advertisement in a major newspaper of general circulation and, where applicable, on a major radio station in the area. In addition, the U.S. Army will notify everyone on the Site mailing list of document availability.

Other public meetings relating to progress and compliance with the Agreement will be scheduled on an as-needed basis, as determined by the Parties. Situations involving complex issues or a high level of public interest may require separate public meetings. Location(s) of these meetings will be decided by the Parties.

II.E. Technical Assistance Grants (TAG). The provision for Technical Assistance Grants (TAG) is found in Section 117(e) of CERCLA. The TAG is a mechanism by which the Federal government provides reimbursement to the public for a level of effort spent on CERCLA document review. In this way, the public can be directly involved in the review process of various CERCLA documents in more depth than otherwise might be possible. As of the date of execution of the Agreement, a TAG has not been awarded. The U.S. Army will cooperate with any group receiving a TAG by providing copies of existing documents requested by that group as long as providing the information is not a violation of any applicable federal security requirements or the Freedom of Information Act.

III. Health and Safety Plan (HSP). The U.S. Army will submit a HSP for each OU which will document specific health and safety procedures to be followed to ensure the health and safety of the investigative team and others (including the general public) during all phases of response actions. The HSP will be submitted by the U.S. Army to EPA and UDEQ for review and comment in accordance with Table 3 of this Attachment. The HSP will support field efforts, conform to the U.S. Army's health and safety program(s) and be in compliance with OSHA and applicable State laws. Specific information required in a Site HSP is listed in 29 CFR 1910.120 and will at a minimum include: the names of key personnel responsible for site safety and health; health and safety risk analyses for existing site conditions, and for each type of task and operation; employee training and

assignments (both ongoing and for new personnel); descriptions of personnel protective equipment to be used by employees for each type of task and operation to be conducted; medical surveillance requirements; descriptions of the types and frequency of air monitoring, personnel monitoring and environmental sampling techniques and instrumentation to be used for each type of task and/or operation to be conducted; site control measures; decontamination procedures; standard operating procedures ; a contingency plan that meets the requirements of 29 CFR 1910.120(1)(1) and (1)(2); and entry procedures for confined spaces.

- IV. Sampling and Analysis Plan (SAP). The SAP will be submitted by the U.S. Army to EPA and UDEQ for review and comment in accordance with Section 10 (Consultation) and Table 3 of this Attachment. The SAP will consist of two parts: a quality assurance project plan (QAPP) that describes the policy, organization, functional activities, and quality assurance protocols necessary to achieve the data quality objectives dictated by the intended use of the data for each OU; and Field Sampling Plan (FSP) which details the standard operating procedures and field techniques to be utilized during the investigation of the Site, and provide guidance for the performance of all fieldwork. The FSP will be written by the U.S. Army to reflect EPA guidance to ensure that work required in this Attachment is performed in accordance with EPA accepted methods.

The U.S. Army will provide EPA and UDEQ a minimum of 14 days notice prior to the commencement of any sampling or field activity conducted pursuant to the SAP so that EPA and UDEQ may participate in activities to include field audits, and obtaining samples. This minimum of 14 days notice prior to the commencement of any sampling or field activity will also be provided for any work which had been stopped pursuant to Sections 13 and 14 of the Agreement.

- IV.A. The QAPP will consist of at least the following elements: project description; project organization and responsibilities; data quality objectives (DQOs); sampling procedures; detection limits; sample custody; calibration procedures; analytical procedures; data reduction, validation and reporting procedures; internal quality control and quality assurance procedures; performance and system audits; preventative maintenance requirements; data assessment procedures; corrective actions; and quality assurance reports (see Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final, October, 1988, and Interim Guidelines and

Specifications for Preparing Quality Assurance Project Plans, QAM-005/80, U.S. EPA, 1983).

- IV.B. The FSP will describe in detail, specific sampling techniques for a given objective, sampling equipment and procedures and specific sample handling and analysis procedures. The FSP will incorporate the sampling objectives of the Workplan for each OU and will anticipate investigations beyond the work specified in this Attachment.
- V. RI Workplans. The U.S. Army will prepare RI Workplans for each OU that assure that each Source Area identified in Table 2 is fully characterized and that a Baseline Risk Assessment is performed, as set forth below. The RI Workplans will be submitted to EPA and UDEQ in accordance with schedules within Table 3 of this Attachment. The RI Workplans required by the Agreement will meet the requirements as outlined in Section V.B. of this Attachment and will be implemented on finalization pursuant to Section 10 (Consultation) of the Agreement.
- V.A. The U.S. Army will prepare or amend RI Workplans to ensure that each spill and/or release described within the RI report, or newly discovered spills or releases identified by EPA and UDEQ as requiring an RI, is investigated to establish site characteristics and nature and extent of contamination. The RI Workplan(s) will be implemented as finalized pursuant to Section 10 (Consultation) of the Agreement.
- V.B. The U.S. Army will develop RI Workplans for those Source Areas as specified in Sections V. and V.A. above. The Workplans will include a summary of the existing data in terms of physical and chemical characteristics of the contaminants identified, and their distribution among the environmental media at each Source Area. The plans will also include a conceptual "model" describing the contaminant sources, and potential migration and exposure pathways and receptors. In addition, the plans will include a description of each Source Area investigation and management strategy developed by the U.S. Army during scoping; a preliminary identification of remedial alternatives and data needs for evaluation of remedial alternatives. The plans will reflect coordination with the treatability study requirements as outlined in this Attachment, and any additional treatability studies required through the FS process. The plans will include processes, schedules for, and manner of, identifying Federal and State (chemical-specific,



location-specific, and action-specific) applicable or relevant and appropriate requirements (ARARs).

The Workplan(s) will include detailed descriptions of the tasks to be performed, information needed for each task (e.g., for health and environmental risk evaluation), information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to EPA and UDEQ. The RI Workplan(s) will include a Sampling and Analysis Plan (SAP) which will describe in detail, specific OU background information, sampling objectives for each Source Area within each OU, sample location, and minimum frequency for each task and/or operation for a given objective, sample designation procedures, sampling equipment and procedures, and sample handling and analysis protocol. The Workplan will include a discussion of potential investigations beyond the work initially specified as a contingency for additional work that may be required. The U.S. Army will refer to Appendix B of the October 1988 Interim Final RI/FS Guidance for a description of the contents of the required Workplans.

Because of the unknown nature of many of the Source Areas and the interactive nature of the RI and FS, additional data requirements and analyses may be identified throughout the process. The U.S. Army will submit technical memoranda to EPA and UDEQ documenting the need for additional data, and identifying the data quality objectives (DQOs) whenever such requirements are identified. These technical memoranda will be attached as an amendment to the approved Workplans for each OU after finalization pursuant to the Agreement. In any event, the U.S. Army is responsible for fulfilling additional data and analysis needs consistent with the general scope and objectives of each RI and FS. The Workplans will provide for the activities in subparagraphs V.B.1.- V.B.5.b. of this Attachment.

V.B.1. Investigate and define Source Area physical characteristics. The U.S. Army will collect data on the physical characteristics of each Source Area and its surrounding area including the physiography, geology, hydrology, and specific physical characteristics identified in the Workplan(s). This information will be ascertained through a combination of physical measurements, observations, and sampling efforts and will be utilized to define potential transport pathways and receptor populations. In defining each Source Area's physical characteristics,

the U.S. Army will also obtain sufficient data for the projection of contaminant fate and transport, and the development and screening of corrective/remedial action alternatives, including information to assess treatment technologies.

V.B.2. Define sources of contamination. The U.S. Army will locate each source of contamination. For each media in which contaminants occur at each location, the areal extent and depth of contamination will be determined for all known and discovered sources of contamination. Any sampling grid and incremental depths for sampling will be determined by site-specific conditions. Sampling objectives will be to determine physical characteristics, chemical constituents of contaminants and their concentrations. The U.S. Army will conduct sufficient sampling to establish background conditions for all media and contaminants and define the boundaries of the contaminant sources to the level established in the Workplan(s), SAP(s), DQOs, or as necessary to obtain sufficient information. Defining the source of contamination will include analyzing the potential for contaminant releases (e.g., long term leaching from soil), contaminant mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess treatment technologies.

V.B.3. Describe the nature and extent of contamination. The U.S. Army will gather information to describe the nature and extent of contamination as a final step during the field investigation. To describe the nature and extent of contamination, the U.S. Army will utilize the information on each Source Area's physical characteristics and sources of contamination to give a preliminary estimate of the types and concentrations of contaminants that may have migrated. The U.S. Army will then implement a monitoring program and any study program identified in the Workplan or SAP, or as otherwise necessary to obtain sufficient information, such that by using analytical techniques sufficient to detect and quantify the concentration of contaminants, the migration of contaminants through the various media at each Source Area can be determined. In addition, the U.S. Army will gather data for calculations of contaminant fate and transport. This process is continued until the area and depth of contamination are sufficiently defined to satisfy the minimum requirements of the finalized Workplan, finalized SAP, and DQOs. Sufficient information on the nature and extent of contamination will be obtained and utilized to determine the level of risk presented by each Source

Area and will help to determine aspects of the appropriate remedial action alternatives to be evaluated.

V.B.4. Evaluate Source Area characteristics. The U.S. Army will analyze and evaluate the data to describe: 1) each Source Area's physical characteristics, 2) contaminant source characteristics 3) nature and extent of contamination, and 4) contaminant fate and transport. Results of each Source Area's physical characteristics, source characteristics, and nature and extent of contamination analyses are utilized in the analysis of contaminant fate and transport. The evaluations will include the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. Where modeling is appropriate, such models will be identified to EPA and UDEQ in a technical memorandum prior to their use. All data and programming, including any proprietary programs, will be made available to EPA and UDEQ together with a sensitivity analysis. Also, this evaluation will provide any information relevant to each Source Area's characteristics necessary for evaluation of the need for Remedial Action in the Baseline Risk Assessment and for the development and evaluation of remedial alternatives. Analyses of data collected for each Source Area's characterization will meet the DQOs developed in the Workplan and SAP or as revised within amendments or addenda to the Workplan or SAP during the RI.

V.B.5. Data Management Procedures. The U.S. Army will consistently document the quality and validity of field and laboratory data compiled during the RI/FS activities and in any monitoring pursuant to those activities. EPA and UDEQ may review and comment on these documents for items that include completeness, adherence to procedures, quality assurance, quality control, and acceptance when the data is used within any primary document. All documents pursuant to Sections V.B.5.a. and V.B.5.b. of this Attachment will be retained by the U.S. Army for a minimum of 10 years with disposal thereafter only upon EPA and State concurrence.

V.B.5.a. Document field activities. Information gathered during each characterization will be fully documented and recorded by the U.S. Army in well maintained field logs and laboratory reports. The method(s) of documentation will be specified in the Workplans and/or the SAP. Field logs will be

utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports will document sample custody, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

V.B.5.b. Maintain sample management and tracking. The U.S. Army will maintain field reports, sample shipment records, analytical results, and quality assurance/quality control (QA/QC) reports to ensure that only validated analytical data are reported and utilized in the development and evaluation of remedial alternatives. Analytical results developed under the Workplans or SAPs will not be included in any characterization reports (Baseline Risk Assessment, RI, Analysis of Alternatives, Proposed Plan) unless accompanied by or cross-referenced to a corresponding QA/QC report which will be submitted. In addition, the U.S. Army will establish a data security system to safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.

V.B.6. Sampling and Data/Document Deliverables. Submission of the results of sampling, tests, or other data or documents generated through the implementation of the Agreement (i.e., after the effective date of the Agreement) will be in accordance with Section 22.1 of the Agreement. These results will be submitted as a primary document and reviewed in accordance with Section 10 of the Agreement, but are not subject to the schedules in Table 3 of this Attachment.

For the results of sampling, tests, or other data or documents generated prior to the implementation of the Agreement, the U.S. Army will submit the validated data no later than the first draft primary site characterization deliverable (Baseline Risk Assessment) for each OU based on the schedule in Table 3 of this Attachment.

VI. OU Characterization Deliverables. The U.S. Army will prepare and submit Baseline Risk Assessments and RI Reports for all OUs in accordance with the schedules within Table 3 of this Attachment. If further characterization of an OU is required, additional phases of investigation will be conducted by the U.S. Army in accordance with the Agreement.

VI.A. Remedial Investigation (RI) Reports. The U.S. Army will prepare and submit draft RI Reports to EPA and UDEQ for review and comment, after completion of the required investigatory work, and in accordance with the schedules within Table 3 of this Attachment. The draft RI Reports will incorporate the draft Baseline Risk Assessment(s) submitted independently as primary documents. These reports will summarize results of field activities to characterize the Source Areas, characterize sources of contamination, define the nature and extent of contamination, define the fate and transport of contaminants, characterize the environmental setting, identify and evaluate the short and long-term threats to human health and the environment, and present the results of the Final Baseline Risk Assessment(s). The U.S. Army will use the Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final, October 1988, (or superceding documents) for an outline of the report format and contents.

VI.B. Baseline Risk Assessment. Baseline Risk Assessments will be performed for each OU and will identify and characterize the toxicity and levels of all hazardous substances present, contaminant fate and transport, the potential for human and/or environmental exposure, and the risk of potential impacts or threats on human health and the environment. The Baseline Risk Assessment(s) will provide the basis for determining whether or not Remedial Action is necessary, and a justification for performing Remedial Actions. The U.S. Army will use the procedures in EPA's Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A), Interim Final, the Risk Assessment Guidance for Superfund, Environmental Evaluation Manual, Interim Final, and the Superfund Public Health Evaluation Manual (SPHEM), or superceding EPA documents to perform a Baseline Risk Assessment for human health and the environment. A residential scenario will be used in assessing human health risks. These procedures are outlined below and will be followed by the U.S. Army. Other resources which may be used when performing the Baseline Risk Assessment(s) include: EPA's Superfund Exposure Assessment Manual (SEAM), the Integrated Risk Information System (IRIS), and the Public Health Risk Evaluation Database (PHRED).

VI.B.1. Baseline Risk Assessment Deliverables. The U.S. Army will prepare Baseline Risk Assessment Report(s) for each OU to incorporate human health risk assessment components discussed in VI.B.2. and environmental evaluation components discussed in VI.B.3. of this

Attachment. A discussion of sources of uncertainty, data gaps, incomplete toxicity information, and modeling characteristics, limitations, and assumptions must be included. The U.S. Army will refer to the Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A), Interim Final, December 1989 for an outline of the report format for the human health portion of the report.

Two deliverables that are not primary or secondary documents will be submitted to EPA and UDEQ at the same time as the Sampling and Data Results are submitted for each OU described in Table 3 of this Attachment. These will be (1) Summary Identification of Contaminants and Indicator Chemicals as in VI.B.2.a. of this Attachment and (2) Exposure Scenario and Fate and Transport Models as in VI.B.2.b. of this Attachment. These will be submitted in the form of a technical memorandum and are for the purpose of advance discussion and evaluation of features to be included in the Remedial Investigation Report(s). EPA and UDEQ may submit review comments to the U.S. Army for due consideration no later than 45 days before the submittal date of the draft Baseline Risk Assessment Report.

Part VI.B.2.c. of this Attachment describes a secondary document on toxicological and epidemiological studies to be submitted by the U.S. Army only under specific conditions. This document is not included under the schedules in Table 3 of this Attachment.

VI.B.2. Human Health and Risk Assessment Components. The health risk assessment process is divided into the four components listed below. During the scoping of the Baseline Risk Assessment, the U.S. Army will discuss with EPA and UDEQ the format of the Baseline Risk Assessment report as well as the references to be utilized during the Baseline Risk Assessment.

VI.B.2.a. Contaminant identification and documentation. The U.S. Army will review the information that is available on the hazardous substances present at each Source Area within an OU and will identify the contaminants of concern. The indicator chemicals, or contaminants of concern, are not chosen solely on the basis of chemical-specific requirements. Rather, they are selected based on quantity, the concentration of contaminants at each Source Area within an OU as compared to levels that pose a risk, or critical exposure

pathways, such as drinking water. When selecting the indicator chemicals, the U.S. Army will also consider the cumulative, antagonistic, and synergistic effect of risks, to the extent possible. A complete list of all of the hazardous substances present at each Source Area or OU and the indicator chemicals to be evaluated in conjunction with the known corresponding ambient concentrations of these contaminants. Chemical-specific requirements will also be identified at this time.

VI.B.2.b. Exposure assessment and documentation. Using the information in the Superfund Exposure Assessment Manual (SEAM) and other sources, the U.S. Army will identify actual and potential exposure points and pathways, and introduce conceptual model(s) for exposure points and routes. For each exposure point, the release source, the transport media (e.g., ground water, surface water, air) and the exposure route (oral, inhalation, dermal) will be clearly delineated. The current number of people at each exposure point will be estimated, and both sensitive and potentially exposed populations will be characterized. Both present and future potential exposure and risks at each Source Area and OU will be considered, and both current and maximum reasonable use scenarios will be considered, including evaluation of risk at the source subject to residential use. Representative data will be utilized and the limitations, assumptions and uncertainties associated with the conceptual model(s) will be documented.

VI.B.2.c. Toxicity assessment and documentation. The U.S. Army will utilize the information in Integrated Risk Information System (IRIS) and other sources to provide a toxicity assessment of the indicator chemicals. This assessment will include the types of adverse health and/or environmental effects associated with chemical exposures (including potential carcinogenicity), the relationships between magnitude of exposures and adverse effects, and the related uncertainties for contaminant toxicity (e.g., the weight of evidence for a chemical's carcinogenicity).

For those substances lacking an EPA toxicity value and for which the U.S. Army wishes to develop its own toxicity value, the U.S. Army will submit for review and comment a technical memorandum listing the toxicological and epidemiological studies that

will be utilized to perform the toxicity assessment. This memorandum will be submitted as a secondary document in advance of the draft baseline risk assessment so that EPA and UDEQ review comments on the results of any studies conducted can be used in developing the draft baseline risk assessment. The specific submittal date will be determined by agreement of the Parties.

- VI.B.2.d. Risk Characterization. The U.S. Army will integrate the ambient concentrations and reasonable worst case assumptions with the information developed during the exposure and toxicity assessments, to characterize the current and potential risk to human health and the environment posed by each Source Area or OU. This risk characterization must identify any uncertainties associated with contaminants, toxicities, and/or exposure assumptions.
- VI.B.3. Environmental Evaluation and Deliverables. In addition to the human health risk assessment, the risks to the environment from exposure to the contaminants will be addressed.
- VI.B.3.a. Environmental Evaluation Plan. The U.S. Army will submit a plan for the evaluation of the environmental risk, within each OU RI Workplan or addendum to a Workplan. This plan will specify the objectives of the evaluation and the information necessary to adequately characterize the nature and extent of environmental risk or threat resulting from each Source Area or OU. At a minimum, this plan will address the environmental evaluation of: 1) any critical habitats affected by site contamination; and 2) any endangered species or habitats of endangered species affected by the contamination. The U.S. Army will utilize the Interim Final Risk Assessment Guidance for Superfund - Environmental Evaluation Manual in preparing this plan.
- VI.B.3.b. Environmental Evaluation Report. An environmental evaluation report will be submitted to EPA and the UDEQ, as a chapter of the Baseline Risk Assessment for each OU. This evaluation will be included in the draft Baseline Risk Assessment reports as a chapter separate from the human health risk assessment. At a minimum, the environmental evaluation report will include an assessment of any critical habitats, and any endangered species



or habitats of endangered species affected by the contamination.

VII. Development and Screening of Remedial Alternatives (FS).

For each OU, or part of OU as agreed, subject to a FS pursuant to the Agreement, the U.S. Army will perform the activities in Section VII.A. through VII.E. The development and screening of remedial alternatives will consider an appropriate range of remedial action options for evaluation. The process is interactive and iterative with investigatory activities, treatability studies, and additional information pertinent to the ultimate selection of remedy. The range of alternatives will include, at a minimum: options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but which vary in the types of treatment, the amount of wastes treated, and the manner in which long-term residuals or untreated wastes are managed; options involving containment with little or no treatment; options involving both treatment and containment; and a no-action alternative. The U.S. Army will develop and evaluate a range of appropriate remedial action options that, at a minimum, ensures protection of human health and the environment.

VII.A. Development and Screening of Remedial Alternatives Deliverable Documents. For each OU, the U.S. Army will submit a technical memorandum primary document on remedial action objectives (activities in VII.B.), assembled alternatives screening memorandum secondary document (activities VII.C.), a detailed analysis of alternatives analysis primary document (activities in VII.D), and a feasibility study (FS) report primary document (activities in VII.E) in accordance with the schedules provided within Table 3 of this Attachment. These reports, as ultimately adopted or amended, provide a basis for remedy selection and document the development and analysis of remedial alternatives. The U.S. Army will refer to Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final, October 1988 [or as amended] for outlines of report format(s) and/or required report content(s).

VII.B. Refine and Document Remedial Action Objectives. The U.S. Army will propose and refine the specific remedial action objectives for each OU, or part of OU, to aid in the development of remedial alternatives. The remedial action objectives will be documented in a technical memorandum to be submitted to EPA and UDEQ for review as a primary document. For each affected media, these objectives will specify the contaminants of concern, exposure routes and receptors, and an acceptable

contaminant level or ranges of levels for each exposure route (i.e., a preliminary remediation goal). The objectives will be as specific as practicable without limiting the range of alternatives. These preliminary goals are modified as more information becomes available.

VII.B.2. Develop General Response Actions. The U.S. Army will develop, describe, and define general response action(s) for each medium of interest that may be used in satisfying the remedial action objectives.

VII.B.3. Identify Areas or Volumes of Media. The U.S. Army will identify areas or volumes of media to which general response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The chemical and physical characterization of each Source Area and OU will also be taken into account.

VII.C. Identify, Screen, and Document Remedial Technologies. The U.S. Army will identify and evaluate technologies applicable to each general response action to eliminate those that cannot be implemented at each Source Area or OU. General response actions will be refined to specify remedial technology types. Technology process options for each of the technology types will be identified either concurrent with the identification of technology types, or following the screening of the considered technology types. Any treatability studies conducted will be taken into account. Process options will be evaluated on the basis of effectiveness, implementability, and cost factors to select and retain one or, if necessary, more representative processes for each technology type.

VII.C.1. Assemble and Document Alternatives. The U.S. Army will assemble selected representative technologies into alternatives for each Source Area or OU. Together, all of the alternatives will represent a range of treatment and containment combinations and a no-action alternative in accordance with 40 CFR Section 300.430(e)(G)(3) of the NCP. A summary of the assembled alternatives and their related action-specific ARARs will be prepared by the U.S. Army for inclusion in a secondary document technical memorandum to be submitted to EPA and UDEQ for review. The reasons for eliminating alternatives during the preliminary screening process will be specified.

VII.D. Refine Alternatives. The U.S. Army will refine the remedial alternatives to identify the contaminant volume addressed by the proposed process and the sizing of critical unit operations, as necessary. Sufficient information will be collected for an adequate comparison of alternatives. Remedial action objectives for each medium will also be refined, as necessary, to incorporate any new risk assessment information being generated from the remedial investigation. Additionally, action-specific ARARs will be updated as the remedial alternatives are refined.

VII.D.1. Conduct and Document Screening Evaluation of Each Alternative. The U.S. Army will perform a final screening process based on short and long-term aspects of effectiveness, implementability, and relative cost. With prior agreement of the Parties, the screening of alternatives will be conducted to assure that only the alternatives with the most favorable composite evaluation of all factors are retained for further analysis.

The screening will otherwise preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives will include options that use treatment technologies and permanent solutions to the maximum extent practicable.

VII.D.2. Detailed Analysis of Remedial Alternatives (FS). The U.S. Army will conduct a detailed analysis of alternatives which will consist of an analysis of each remedial alternative against a set of nine evaluation criteria and a comparative analysis of all remedial alternatives using the same evaluation criteria as a basis for comparison. The results of this analysis will be submitted as a primary document in accordance with the schedules in Table 3 of this Attachment and will be incorporated into the Feasibility Studies report.

The purposes of this activity are to assure identification of a complete and appropriate range of viable alternatives which are considered in the detailed analysis, refine remedial action objectives, and provide EPA and UDEQ with the information needed to allow for the selection of remedy. The nine evaluation criteria to be used are found in 40 CFR Part 300.430 (e)(9)(iii),

National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule (the NCP).

For each alternative, the U.S. Army will provide: 1) a description of the alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative, and 2) an assessment of the alternative with respect to each of the individual criteria. Application of the evaluation criteria to the assembled remedial alternatives is intended to ensure that the selected remedial alternative will be protective of human health and the environment; will be in compliance with ARARs; will utilize permanent solutions and alternative treatment technologies or resource recovery technologies, to the maximum extent practicable; will address the preference for treatment as a principal element; and will be cost effective.

VII.E. Feasibility Study Report (FS). The U.S. Army will prepare draft and draft final FS Reports for each OU for review and comment pursuant to Section 10 (Consultation) of the Agreement. These reports shall be submitted to EPA and UDEQ in accordance with the schedule in Table 3 of this Attachment. The draft FS Report(s) will identify the ARARs which will be utilized to evaluate and select the remedial action(s) at each OU and/or Source Area within an OU. The draft FS will also contain anticipated time schedules for implementation and completion of remedial design(s) and remedial action(s). If the time necessary for implementation exceeds one [1] year, the schedule will specify dates for submission of interim deliverables. With prior agreement of the Parties, a draft FS may be submitted with the draft final RI report for each OU in order to expedite response actions.

VIII. Remedy Selection and Documentation. For each OU or remedial response action within an OU, the U.S. Army will offer a preferred alternative for the remedy from those evaluated pursuant to VII.D.2 above. Documentation of the selection process will occur within three documents, the Proposed Plan (PP) primary document, Responsiveness Summary secondary document, and Record of Decision (ROD) primary document. These documents will be submitted to EPA and UDEQ for review and comment in accordance with the schedules within Table 3 of this Attachment.

A draft Proposed Plan (PP) may be submitted concurrently with the draft final FS with prior agreement of the Parties. The PP finalized according to Section 10 of the Agreement will be subject to a minimum 30-day public comment period that will be extended an additional 30 days upon the U.S. Army's receipt of a timely request. In conjunction with submitting the PP, the U.S. Army will comply with public participation requirements, including all applicable requirements of CERCLA Section 117, 40 CFR Part 300.430 and those identified in a timely manner by UDEQ.

The U.S. Army will prepare a Responsiveness Summary that summarizes the elements of community involvement in developing the remedial alternative in the PP and responds to each of the significant comments received during the public comment period. The Responsiveness Summary will be submitted to EPA and UDEQ in accordance with Table 3 of this Attachment for review and comment in accordance with Section 10 of this Agreement. The U.S. Army will make this a part of the Administrative Record. The U.S. Army will submit draft and draft final ROD documents for EPA and UDEQ review and comment in accordance with the schedules within Table 3 of this Attachment. The draft ROD will be accompanied by a discussion of any significant changes in the PP due to public comment. With prior agreement of the Parties, the U.S. Army will submit a document that describes and summarizes the elements of a draft ROD that are independent of public comments. The purpose of this document is for the purposes of advance discussion and will not serve as the draft ROD.

- IX. Implementation of the Record of Decision. Upon finalization of the ROD in accordance with the terms of the Agreement, the U.S. Army will publish notice of the remedy selected in the ROD, including any significant changes made to the PP based on any comments received. The U.S. Army will begin implementation of the required action by submitting a remedial design work plan and a schedule for submittal of other post-ROD documents in accordance with Section 11 (Deadlines) of the Agreement. Prior to implementation, all plans, designs, and subsequent schedules will be subject to review and comment by EPA and UDEQ in accordance with Section 10 of the Agreement.

Within 30 days of finalization of the Final RD in accordance with Section 10 of this Agreement, the U.S. Army will begin Remedial Action by submittal to EPA and UDEQ a draft Remedial Action Work Plan. The Remedial Action Work Plan will include provisions for the long term operation and

maintenance of the remedy as required by CERCLA. Pursuant to Section 120(e)(2) of CERCLA, substantial continuous physical onsite remedial action shall be commenced at each facility not later than 15 months after completion of the investigation and study.

With prior agreement of the Parties, the U.S. Army may concurrently submit to EPA and UDEQ the RD and RA Workplans for each remedial action.

- IX.A. Within 60 days of completion of Remedial Action for a Source Area or OU, the U.S. Army will submit to EPA and UDEQ a Project Closeout Report for the Source Area or OU.

TABLE 1

STATEMENT OF WORK PRIMARY AND SECONDARY DOCUMENTS

PRIMARY DOCUMENTS--SECTION 10.3 OF AGREEMENT

Community Relations Plan (for all NPL Site activities)

Remedial Investigation Work Plan, including: Data Quality Objectives; Sampling and Analysis Plan; Quality Assurance Project Plan; Field Sampling Plan; and Health and Safety Plan (for each operable unit).

Memorandum on Remedial Action Objectives (for each operable unit)

Sampling and Data Results (for each operable unit)

Baseline Risk Assessment (for each operable unit)

Remedial Investigation Report--Includes Risk Assessment and Ground Water Assessment (for each operable unit)

Memorandum on Detailed Analysis of Alternatives (for each operable unit)

Feasibility Study Report (for each operable unit)

Proposed Plan (for each operable unit)

Record of Decision (for each operable unit)

Remedial Design Work Plan

Remedial Action Work Plan

Preliminary Design Stage Report--30% Completion Stage (for each operable unit)

Prefinal Design Report - 95% completion stage (for each operable unit).

Construction Quality Assurance/Quality Control Plan (for each operable unit)

Contingency Plan (for each operable unit)

Project Closeout Report (for each operable unit)

## SECONDARY DOCUMENTS-SECTION 10.4 OF AGREEMENT

Assembled Alternatives Screening Memorandum (for each operable unit)

Responsiveness Summary (for each operable unit)

Intermediate Remedial Design- 60% completion stage (for each operable unit)

Final Remedial Design Document-100% completion Stage/as built. (for each operable unit)

## OTHER DOCUMENTS

Memorandum on Summary Identification of Contaminants and Proposed Indicator Chemicals

Memorandum on Exposure Scenario and Fate and Transport Models

Memorandum on Toxicological and Epidemiological Studies

These other documents are not primary or secondary documents under the provisions of the Agreement. The "Summary Identification" and "Exposure Scenario" memoranda are for the purpose of advance review and discussion in development of the baseline risk assessment. The "Toxicological Studies" memorandum is to be submitted only if the U.S. Army elects to conduct such a study for a substance for which existing data is insufficient to assess risks.



TABLE 2

OPERABLE UNITS AND SOURCE AREAS AT TEAD-N NPL SITE

OPERABLE UNIT #4

Source Area - #35 Waste Water Spreading Area

OPERABLE UNIT #5

Source Areas - #17 Transformer Storage Area  
- #31 Former Transformer Boxing Area  
- #32 PCB Spill Site  
- #33 PCB Storage Building 659

OPERABLE UNIT #6

Source Areas - #9 Drummed Radioactive Waste  
- #18 Radioactive Waste Storage Eldg.

OPERABLE UNIT #7

Source Areas - #5 PCB Pole Spill  
- #6 Old Burn Area  
- #7 Chemical Range  
- #13 Tire Disposal Area  
- #36 Old Burn Staging Area

OPERABLE UNIT #8

Source Areas - #22 Building 1303 Washout Pond  
- #23 Bomb and Shell Reconditioning

OPERABLE UNIT #9

Source Areas - #8 SM Firing Range (Rifle Range)  
- #40 AED Test Range (Rifle Range)

OPERABLE UNIT #10

Source Area - #41 Box Elder Wash Drum Site

OPERABLE UNIT #11

New Source Areas

Table 3a Schedule of Deadline Dates

Site Wide Application

Primary Document	FY' / Qtr.	Deadline	Comment <sup>2</sup>	Due Date	(Days)
Draft Community Relations Plan	N/A	Complete	N/A	N/A	N/A
Final Community Relations Plan	92/1	01-Oct-91		15-Nov-91	45.0
Draft Baseline Risk Assessment	92/2	01-Jun-92		16-Jul-92	45.0
Final Baseline Risk Assessment	92/3	30-Aug-92		14-Oct-92	45.0

Each Operable Unit #4 thru #10

Primary Document	FY' / Qtr.	Deadline Date	Comment <sup>2</sup>	Due Date	Duratr (Days)
Draft RI/FS Work Plan	92/1	01-Oct-91		15-Nov-91	45.0
Incl. Sampling and Analysis Plan					
Incl. Health and Safety Plan					
Incl. Quality Ass. Project Plan					
Final RI/FS Work Plan	92/1	30-Dec-91		13-Feb-92	45.0
Incl. Sampling and Analysis Plan					
Incl. Health and Safety Plan					
Incl. Quality Ass. Project Plan					
Draft Memorandum on Remedial Action Objectives	92/3	01-Jul-92		15-Aug-92	45.0
Final Memorandum on Remedial Action Objectives	92/4	29-Sep-92		13-Nov-92	45.0
Final Sampling and Data Results	93/1	01-Oct-92		01-Oct-92	0.0
Draft Memorandum on Detailed Analysis of Alternatives	93/2	01-Feb-93		18-Mar-93	45.0
Final Memorandum on Detailed Analysis of Alternatives	93/3	02-May-93		16-Jun-93	45.0
Draft Remedial Investigation Report	93/2	15-Feb-93		01-Apr-93	45.0
Final Remedial Investigation Report	93/3	16-May-93		30-Jun-93	45.0
Draft Feasibility Study Report	93/4	15-Jul-93		29-Aug-93	45.0
Final Feasibility Study Report	94/1	13-Oct-93		27-Nov-93	45.0
Draft Proposed Plan	93/4	15-Jul-93		29-Aug-93	45.0
Final Proposed Plan	94/1	13-Oct-93		27-Nov-93	45.0
Draft Record of Decision	94/1	27-Nov-93		11-Jan-94	45.0
Final Record of Decision	94/2	25-Feb-94		11-Apr-94	45.0
Draft Schedule for RD/RA Work					
Final Schedule for RD/RA Work					
Draft Remedial Design Work Plan					
Final Remedial Design Work Plan					

<sup>1</sup> Deadline dates are when the U.S. Army will submit Primary Documents to EPA and UDEQ for review and comment.

<sup>2</sup> Comment due dates apply to draft documents, however for final primary reports this date refers to the final date for invoking dispute resolution.

Table 3b Schedule of Deadlines<sup>1</sup> and Target Dates<sup>2</sup>

Site Wide Application

Primary Documents	FY'/Qtr.	Deadline * Target Date	Comment <sup>3</sup> Due Date	Duratr <sup>n</sup> (Days)
Draft Community Relations Plan *	N/A	Complete	N/A	N/A
Final Community Relations Plan *	92/1	01-Oct-91	15-Nov-91	45.0
Draft Baseline Risk Assessment *	92/3	01-Jun-92	16-Jul-92	45.0
Final Baseline Risk Assessment *	92/4	30-Aug-92	14-Oct-92	45.0

Each Operable Unit #4 thru #10

Primary and Secondary Documents and other documents or tasks	FY'/Qtr.	Deadline * Target Date	Comment <sup>3</sup> Due Date	Duratr <sup>n</sup> (Days)
Draft RIFS Work Plan *	92/1	01-Oct-91	15-Nov-91	45.0
Incl. Sampling and Analysis Plan				
Incl. Health and Safety Plan				
Incl. Quality Ass. Project Plan				
Final RIFS Work Plan *	92/2	30-Dec-91	13-Feb-92	45.0
Incl. Sampling and Analysis Plan				
Incl. Health and Safety Plan				
Incl. Quality Ass. Project Plan				
Field Investigations	92/2	28-Feb-92	28-May-92	90.0
Laboratory Analyses	92/2	14-Mar-92	27-Jul-92	135.0
Data Validation/Evaluation	92/3	28-May-92	01-Oct-92	126.0
Sampling and Data Results *	93/1	01-Oct-92	01-Oct-92	0.0
Draft Memorandum on RA Obj. *	92/3	01-Jul-92	15-Aug-92	45.0
Final Memorandum on RA Obj. *	92/4	29-Sep-92	13-Nov-92	45.0
Draft Assem. Alt. Screening Mem.**	92/4	01-Aug-92	15-Sep-92	45.0
Final Assem. Alt. Screening Mem.**	93/1	30-Oct-92	14-Dec-92	45.0
Mem.Sum.Iden.Cont.& Prop.Ind.Chem.	93/1	01-Oct-92	15-Nov-92	45.0
Mem.Exp.Scen.& Fate & Trans.Model	93/1	01-Oct-92	15-Nov-92	45.0
Mem.on Toxicol. and Epid. Studies	93/1	01-Oct-92	15-Nov-92	45.0
Draft Mem. on Det. Anal. of Alt.*	93/2	01-Feb-93	18-Mar-93	45.0
Final Mem. on Det. Anal. of Alt.*	93/3	02-May-93	16-Jun-93	45.0
Dft. Remedial Investigation Report*	93/2	15-Feb-93	01-Apr-93	45.0
Fin. Remedial Investigation Report*	93/3	16-May-93	30-Jun-93	45.0
Draft Feasibility Study Report *	93/4	15-Jul-93	29-Aug-93	45.0
Final Feasibility Study Report *	94/1	13-Oct-93	27-Nov-93	45.0
Draft Proposed Plan *	93/4	15-Jul-93	29-Aug-93	45.0
Final Proposed Plan *	94/1	13-Oct-93	27-Nov-93	45.0
Public Comment/Meeting	94/1	13-Oct-93	12-Dec-93	60.0
Responsiveness Summary **	94/2	27-Dec-93	10-Feb-94	45.0
Draft Record of Decision *	94/1	27-Nov-93	11-Jan-94	45.0
Final Record of Decision *	94/2	25-Feb-94	11-Apr-94	45.0

<sup>1</sup> Deadline dates are when the U.S. Army will submit Primary Documents to EPA and UDEQ for review and comment. Primary documents are designated with an asterisk (\*).

<sup>2</sup> Target dates pertain to Secondary documents designated with two asterisks (\*\*) and other documents or tasks without a designation.

<sup>3</sup> Comment due dates apply to draft documents, however for final primary reports this date refers to the final date for invoking dispute resolution.

TABLE 4 - DOCUMENTS SUBMITTED BY US ARMY

Base Wide

<u>Document</u>	<u>Deadline Date</u>
Draft Community Relations Plan	Complete
Final Community Relations Plan	01-Oct-91

TABLE 5 - SCHEDULE OF REVIEW COMMENTS TO US ARMY  
ON PREVIOUSLY SUBMITTED DOCUMENTS

Base Wide

<u>Document</u>	<u>Comment Due Date</u>
Draft Community Relations Plan	Complete
Final Community Relations Plan	15-Nov-91

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1. Comment due dates apply to draft documents, however for final primary reports this date refers to the final date for invoking dispute resolution.