

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 9

AND THE

GUAM ENVIRONMENTAL PROTECTION AGENCY

AND THE

UNITED STATES AIR FORCE

IN THE MATTER OF:

The United States  
Department of the  
Air Force

Andersen Air Force Base

Federal Facility  
Agreement Under  
CERCLA Section 120

Administrative  
Docket Number: 93-17

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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. JURISDICTION

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

(a) The United States Environmental Protection Agency (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), 3004 and 3005, and 7003, 42 U.S.C. sections 6961, 6928(h), 6924 and 6925, and 6973 as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereinafter jointly referred to as RCRA), the Clean Water Act, 33 U.S.C. section 1251 et seq., the Safe Drinking Water Act, 42 U.S.C. section 300(f) et seq., and Executive Order 12580;

(b) EPA enters into those portions of this Agreement that relate to remedial actions pursuant to CERCLA section 120(e)(2), 42 U.S.C. section 9620(e)(2), RCRA sections 6001, 3008(h), 3004 and 3005, and 7003, 42 U.S.C. sections 6961, 6928(h), 6924 and 6925, and 6973, the Clean Water Act, 33 U.S.C. section 1251 et seq., the Safe Drinking Water Act, 42 U.S.C. section 300(f) et seq., and Executive Order 12580;

(c) The United States Air Force (Air Force) 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 and 3005, 42 U.S.C. section 6961, 6928(h), 6924 & 6925, the Clean Water Act, 33 U.S.C. sections 1251 et seq., the Safe Drinking Water Act, 42 U.S.C. section 300(f) et seq., Executive Order 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 Air Force enters into those portions of this Agreement that relate to remedial actions pursuant to CERCLA section 120(e)(2), 42 U.S.C. section 9620(e)(2), RCRA sections 6001, 3008(h), and 3004 and 3005, 42 U.S.C. section 6961, 6928(h), 6924 & 6925, the Clean Water Act, 33 U.S.C. sections 1251 et seq., the Safe Drinking Water Act, 42 U.S.C. section 300(f) et seq., the National Environmental Policy Act (NEPA), 42 U.S.C. section 4321 et seq., Executive Order 12580 and the DERP;

(e) Guam Environmental Protection Agency (Guam EPA) enters into this agreement pursuant to CERCLA sections 120(f) and



121, 42 U.S.C. sections 9620(f) and 9621.

## 2. PARTIES

2.1 The Parties to this Agreement are EPA, the Air Force, and Guam EPA. The terms of the Agreement shall apply to and be binding upon EPA, Guam EPA and the Air Force.

2.2 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 Air Force shall notify its agents, members, employees, response action contractors for the Site, and all subsequent owners, operators, and lessees of the Site, of the existence of this Agreement.

2.3 Each Party shall be responsible for ensuring that its contractors comply with the terms and conditions of this Agreement. Failure of a Party to provide proper direction to its contractors and any resultant noncompliance with this Agreement by a contractor shall not be considered a Force Majeure event or other good cause for extensions under Section 9 (Extensions), unless the Parties so agree or unless established pursuant to Section 12 (Dispute Resolution). The Air Force will notify EPA and Guam EPA of the identity and assigned tasks of each of its contractors performing work under this Agreement upon their selection.

## 3. DEFINITIONS

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

(a) "Agreement" shall refer to this document and shall include all Appendices to this document to the extent they are consistent with the original Agreement as executed or modified. All such Appendices shall be made an integral and enforceable part of this document. Copies of Appendices shall be available as part of the administrative record, as provided in Subsection 26.3.

(b) "The Air Force" shall mean the United States Air Force, its employees, members, agents, and authorized representatives. "The Air Force" shall also include the Department of Defense (DOD), to the extent necessary to effectuate the terms of this Agreement, including, but not limited to, appropriations and Congressional reporting requirements.

(c) "ARARs" shall mean Federal and Territorial applicable or relevant and appropriate requirements, standards, criteria, or limitations, identified pursuant to section 121 of CERCLA. ARARs shall apply in the same manner and to the same extent that such are applied to any non-governmental entity, facility, unit, or site, as defined in CERCLA and the NCP. See



CERCLA section 120(a)(1), 42 U.S.C. section 9620(a)(1).

(d) "CERCLA" shall mean the Comprehensive Environmental Response, Compensation and Liability Act, Public Law 96-510, 42 U.S.C. sections 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Public Law 99-499, and any subsequent amendments.

(e) "Contractor" shall mean the individual, company or companies retained to undertake any obligation under this Agreement. Each Contractor and subcontractor shall be qualified to do those portions of the obligation for which it is retained.

(f) "Days" shall mean calendar days, unless business days are specified. Any submittal that under the terms of this Agreement would be due on a Saturday, Sunday, or Federal or Territorial holiday shall be due on the following business day.

(g) "Guam EPA" or "GEPA" shall mean the Guam Environmental Protection Agency, its successors and assigns, and its duly authorized representatives.

(h) "EPA" shall mean the United States Environmental Protection Agency, its employees and authorized representatives.

(i) "Effective Date" shall mean the date of the signature by the last party to sign this Agreement.

(j) "Federal Facility" shall mean Andersen Air Force Base (Andersen AFB) and any real property in the Territory of Guam subject to the jurisdiction of the Installation Commander.

(k) "Feasibility Study" or "FS" means a study conducted pursuant to CERCLA and the NCP which fully develops, screens and evaluates in detail remedial action alternatives to prevent, mitigate, or abate the migration or the release of hazardous substances, pollutants, or contaminants at and from the Site. The Air Force shall conduct and prepare the FS in a manner to support the intent and objectives of Section 17 (Statutory Compliance/RCRA-CERCLA Integration).

(l) "Meeting," in regard to Project Managers, shall mean an in-person discussion at a single location or a conference telephone call of all Project Managers. A conference call will suffice for an in-person meeting at the concurrence of the Project Managers.

(m) "Natural Resources Trustee(s)" or "Federal or Territorial Natural Resources Trustee(s)" shall have the same meaning and authority as provided in CERCLA and the NCP.

(n) "Natural Resources Trustee(s) Notification and Coordination" shall have the same meaning as provided in CERCLA and the NCP.



(o) "National Contingency Plan" or "NCP" shall refer to the regulations contained in 40 CFR 300.1, et seq. and any subsequent amendments.

(p) "Operable Unit" shall have the same meaning as provided in the NCP.

(q) "Operation and maintenance" shall mean activities required to maintain the effectiveness of response actions.

(r) "On-Scene Coordinator" or "OSC" shall have the same meaning and authority as provided in the NCP.

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

(t) "Remedial Design" or "RD" shall have the same meaning as provide in the NCP.

(u) "Remedial Investigation" or "RI" means that investigation conducted pursuant to CERCLA and the NCP, as supplemented by the substantive provisions of the EPA RCRA Facilities Assessment (RFA) guidance. The RI serves as a mechanism for collecting data for Site and waste characterization and conducting treatability studies as necessary to evaluate performance and cost of the treatment technologies. The data gathered during the RI will also be used to conduct a baseline risk assessment, perform a feasibility study, and support design of a selected remedy. The Air Force shall conduct and prepare the RI in a manner to support the intent and objectives of Section 17 (Statutory Compliance/RCRA-CERCLA Integration).

(v) "Remedy" or "Remedial Action" or "RA" shall have the same meaning as provided in section 101(24) of CERCLA, 42 U.S.C. section 9601(24), and the NCP, and may consist of Operable Units.

(w) "Remove" or "Removal" shall have the same meaning as provided in section 101(23) of CERCLA, 42 U.S.C. section 9601(23), and the NCP.

(x) "Remedial Project Manager" or "RPM" shall have the same meaning and authority as Project Manager (PM) as provided in Section 18.

(y) "Response" or "Response Action" shall have the same meaning as "respond" or "response" as provided in section 101(25) of CERCLA, 42 U.S.C. section 9601(25), and the NCP.

(z) "Site" shall include the "Federal Facility" of Andersen AFB as defined above and the "facility" as defined in



CERCLA, and any area off the Federal Facility to or under which a release of hazardous substances has migrated, or threatens to migrate, from a source on or at the Federal Facility (Andersen AFB), and any area necessary for performance of response actions.

(aa) "Territory of Guam", "Territory", or "Territorial" shall mean the Guam Territorial government in its entirety and have the same meaning as "State" as specified in the NCP, unless otherwise specified herein.

#### 4. PURPOSES

4.1 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 the 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 NCP, Superfund guidance and policy, RCRA, RCRA guidance and policy, and applicable Territorial law; and

(c) Facilitate cooperation, exchange of information and participation of the Parties in such action; and

(d) Ensure the adequate assessment of potential injury to natural resources, the prompt notification, cooperation and coordination with the Federal and Territorial Natural Resources Trustees necessary to guarantee the implementation of response actions achieving appropriate cleanup levels.

4.2 Specifically, the purposes of this Agreement are to:

(a) Identify operable units (OUs) that are appropriate at the Site prior to the implementation of final remedial action(s) for the Site. OUs shall be identified, and proposed to the Parties as early as possible.

(b) Establish requirements for the performance of a Remedial Investigation ("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 a Feasibility Study ("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 Territorial law;

(c) 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 Territorial law;

(d) Implement the selected remedial actions(s) in accordance with CERCLA and applicable Territorial law, and meet the requirements of CERCLA section 120(e)(2), 42 U.S.C. section 9620(e)(2), pertaining to interagency agreements.

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

(f) Coordinate response actions at the Site with the mission and support activities at Andersen AFB;

(g) Expedite the cleanup process as necessary to protect human health and the environment;

(h) Provide for Guam EPA involvement in the initiation, development, selection and enforcement of remedial actions to be undertaken at Andersen AFB, including the review of all applicable data as it becomes available and the development of studies, reports, and action plans; and to identify and integrate Territorial ARARs into the remedial action process; and to

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

## 5. DETERMINATIONS

5.1 This Agreement is based upon the placement of Andersen AFB, Yigo, Guam, on the National Priorities List by the Environmental Protection Agency on October 14, 1992 57 Federal Register 4824.

5.2 Andersen AFB is a facility under the jurisdiction, custody, or control of the Department of Defense within the meaning of Executive Order 12580, 52 Federal Register 2923, 29 January 1987. The Department of the Air Force is authorized to act on behalf of the Secretary of Defense for all functions delegated by the President through E.O. 12580 which are relevant to this Agreement.

5.3 Andersen AFB is a Federal Facility under the jurisdiction of the Secretary of Defense within the meaning of CERCLA section 120, 42 U.S.C. section 9620, and Superfund Amendments and Reauthorization Act of 1986 (SARA) section 211, 10 U.S.C. section 2701 et seq., and is subject to the Defense Environmental Restoration Program (DERP).

5.4 The Air Force is the authorized delegate of the President under E.O. 12580 for receipt of notification by the Territory of



its ARARs as required by CERCLA section 121(d)(2)(A)(ii), 42 U.S.C. section 9621(d)(2)(A)(ii).

5.5 The authority of the Air Force 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.

5.6 Appendix C to this Agreement shows those secondary and primary documents, if any, which have been accepted as final before or on the effective date of this Agreement.

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

5.8 There are areas within the boundaries of the Federal Facility where hazardous substances have been deposited, stored, placed, or otherwise come to be located in accordance with 42 U.S.C. sections 9601(9) and (14).

5.9 There have been releases of hazardous substances, pollutants or contaminants at or from the Federal Facility into the environment within the meaning of 42 U.S.C. sections 9601(22), 9604, 9606, and 9607.

5.10 With respect to these releases, the Air Force is an owner/ operator and/or generator subject to the provisions of 42 U.S.C. section 9607.

5.11 Included as Attachment B to this Agreement is a map showing source(s) of suspected contamination, based on information available at the time of the signing of this Agreement.

5.12 In accordance with Section 300.605 of the NCP, and Section 107(f) of CERCLA, 42 U.S.C. 9607(f) the Administrator of the Coastal Zone Management Program (C.Z.M.P.) of the Bureau of Planning of the Government of Guam is the Territorial Trustee for natural resources within the boundary of the Territory or belonging to, managed by, controlled by or appertaining to the Territory. As the Territorial Trustee for natural resources the Administrator of the C.Z.M.P. shall assume the responsibilities of trustees pursuant to Section 300.615 of the NCP.

5.13 In accordance with section 300.600(b)(3) of the NCP, and section 107(f) of CERCLA, 42 U.S.C. section 9607(f), the Secretary of Defense is the Trustee for natural resources located on, over, or under the Federal Facility, to the extent such natural resources are not specifically entrusted to the Secretary of Commerce or the Secretary of the Interior. As the Trustee for natural resources the Secretary of Defense shall assume the responsibilities of trustees pursuant to section 300.615 of the NCP.

## 6. WORK TO BE PERFORMED



6.1 The Parties agree to perform all tasks, obligations and responsibilities undertaken pursuant to this Agreement in accordance with CERCLA and CERCLA guidance and policy; the NCP; pertinent provisions of RCRA and RCRA guidance and policy; Executive Order 12580; applicable Territorial laws and regulations; and all terms and conditions of this Agreement including documents prepared and incorporated in accordance with Section 7 (Consultation).

6.2 The Air Force agrees to undertake, seek adequate funding for, fully implement and report on the following tasks, with participation of the Parties as set forth in this Agreement:

- (a) Remedial Investigations of the Site;
- (b) Federal and Territorial Natural Resources Trustee Notification and Coordination for the Site, which includes providing primary and secondary documents;
- (c) Feasibility Studies for the Site;
- (d) All response actions, including Operable Unit response actions, for the Site;
- (e) Operation and maintenance of response actions at the Site.

6.3 The Parties agree to:

- (a) Make their best efforts to expedite the initiation of response actions for the Site, particularly for Operable Units;
- (b) Carry out all activities under this Agreement so as to protect the public health, welfare and the environment.

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

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

7.1 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 Air Force will normally be responsible for issuing primary and secondary documents to EPA and Guam EPA. As of the effective date of this Agreement, all draft, draft final and final primary and secondary documents identified herein shall be prepared, distributed and subject to dispute in accordance with subsections 7.2 through 7.10 below.



The designation of a document as "draft" or "final" is solely for purposes of consultation with EPA and Guam EPA 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 as required by law.

## 7.2 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 Air Force in draft subject to review and comment by EPA and Guam EPA. Following receipt of comments on a particular draft primary document, the Air Force will respond to the comments received and issue a draft final primary document subject to dispute resolution. The draft final primary document will become the final primary document either thirty (30) 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 Air Force in draft subject to review and comment by EPA and Guam EPA. Although the Air Force will respond to comments received, the draft secondary documents may be finalized in the context of the corresponding primary documents. A secondary document may be disputed at the time the corresponding draft final primary document is issued.

## 7.3 Primary Documents:

(a) The Air Force shall complete and transmit drafts of the following primary documents for each operable unit and for the final remedy to EPA and Guam EPA for review and comment in accordance with the provisions of this Section; provided, however, that the Air Force need not complete a draft primary document for an operable unit if (i) the same primary document completed or to be completed with respect to another operable unit covers all topics relevant to the operable unit at issue, and (ii) the Parties agree in writing that such draft primary document need not be completed. Primary documents shall include:

- (1) RI/FS Workplans
- (2) Sampling and Analysis Plans which includes Field Sampling Plans and Quality Assurance Project Plans.
- (3) Community Relations Plans (May be amended as appropriate to address Operable Units. Any such amendments shall not be subject to the threshold requirements of subsection 7.10. Any disagreement regarding amendment of the CRP shall be resolved



- pursuant to Section 12 (Dispute Resolution).)
- (4) RI Reports (including Risk and Ecological Assessment)
  - (5) FS Reports
  - (6) Proposed Plans
  - (7) Records of Decision (RODS)
  - (8) Remedial Design Work Plans
  - (9) Final Remedial Design
  - (10) Remedial Action Work Plan, including Construction Quality Assurance Plan, Construction Quality Control Plan, Contingency Plan, Operation and Maintenance Plan, and Schedules for Remedial Actions
  - (11) Project Closeout Report

(b) Only draft final primary documents shall be subject to dispute resolution. The Air Force shall complete and transmit draft primary documents in accordance with the timetable and deadlines established in Section 8 (Deadlines) of this Agreement.

(c) Primary documents may include target dates for subtasks established as provided in subsections 7.4(b) and 18.3. The purpose of target dates is to assist the Air Force in meeting deadlines, but target dates do not become enforceable by their inclusion in the primary documents and are not subject to Section 8 (Deadlines), Section 9 (Extensions) or Section 13 (Enforceability).

#### 7.4 Secondary Documents:

(a) The Air Force shall complete and transmit drafts of the following secondary documents for each operable unit and for the final remedy to EPA and Guam EPA for review and comment; provided, however, that the Air Force need not complete a draft secondary document for an operable unit if (i) the same secondary document or primary document completed or to be completed with respect to another operable unit covers all topics relevant to the operable unit at issue, and (ii) the Parties agree in writing that such draft secondary document need not be completed. Secondary documents shall include:

- (1) Site Characterization Summaries (part of RI)
- (2) Sampling and Data Results
- (3) Treatability Studies (only if generated)
- (4) Initial Screenings of Alternatives
- (5) Risk and Ecological Assessments
- (6) Well closure methods and procedures
- (7) Detailed analyses of Alternatives
- (8) Post-Screening Investigation Work Plans
- (9) Preliminary Review Report
- (10) Sampling Visit Work Plan
- (11) Expanded Source Investigation Report
- (12) Preliminary Remedial Design



- (13) Construction Quality Assurance Plan
- (14) Construction Quality Control Plan
- (15) Contingency Plan
- (16) Operation and Maintenance Plan
- (17) 10% Remedial Design
- (18) 30% Remedial Design
- (19) 90% Remedial Design

(b) Although EPA and Guam EPA may comment on the drafts for the secondary documents identified as listed above, such documents shall not be subject to dispute resolution except as provided by Subsection 7.2 hereof. Target dates for the completion and transmission of draft secondary documents may be established by the Project Managers. The Project Managers also may agree upon additional secondary documents that are within the scope of the listed primary documents.

7.5 Meetings of the Project Managers. (See also Subsection 18.3). The Project Managers shall meet in person approximately every ninety (90) days, except as otherwise agreed by the Parties, to review and discuss the progress of work being performed at the Site, including progress on the primary and secondary documents. However, progress meetings may be held more frequently as needed upon request by any Project Manager. Prior to preparing any draft document specified in subsections 7.3 and 7.4 above, the Project Managers shall meet in an effort to reach a common understanding with respect to the contents of the draft document.

#### 7.6 Identification and Determination of Potential ARARs:

(a) Guam EPA will contact in writing those Territorial and local governmental agencies that are a potential source of ARARs in a timely manner as set forth in NCP section 300.515(d).

(b) Prior to the issuance of a draft primary or secondary document for which ARAR determinations are appropriate, the Project Managers shall meet to identify and propose all potential pertinent ARARs, including any permitting requirements that may be a source of ARARs. At that time and within the time period described in NCP section 300.515(h)(2), GEPA shall submit the proposed ARARs obtained pursuant to paragraph 7.6(a) to the Air Force, along with a list of agencies that failed to respond to GEPA's solicitation of ARARs and copies of the solicitations and any related correspondence.

(c) The Air Force will contact the agencies that failed to respond and again solicit their inputs.

(d) The Air Force will prepare draft ARAR determinations in accordance with CERCLA section 121(d)(2), 42 U.S.C. section 9621(d)(2), the NCP and pertinent guidance issued by EPA.

(e) 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 a site, the particular actions associated with a proposed remedy and the characteristics of a site. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be identified and discussed among the Parties as early as possible, and must be reexamined throughout the RI/FS process until a ROD is issued.

#### 7.7 Review and Comment on Draft Documents:

(a) The Air Force shall complete and transmit each draft primary document to EPA and Guam EPA on or before the corresponding deadline established for the issuance of the document. The Air Force shall complete and transmit the draft secondary documents in accordance with the target dates established for the issuance of such documents.

(b) Unless the Parties mutually agree to another time period, all draft documents shall be subject to a sixty (60) day period for review and comment. At or before the close of the comment period, EPA and GEPA shall transmit their written comments to the Air Force. For unusually lengthy or complex documents, EPA or GEPA may extend the sixty (60) day comment period for an additional thirty (30) days by written notice to the Air Force prior to the end of the sixty (60) day period. In appropriate circumstances, this period may be further extended in accordance with section 9 (Extensions).

(c) Review of any document by the EPA and Guam EPA may concern all aspects of it (including completeness) and should include, but is not limited to, technical evaluation of any aspect to the document, and consistency with CERCLA, the NCP, applicable Territorial law, and any pertinent guidance or policy issued by the EPA or GEPA. At the request of any Project Manager, and to expedite the review process, the Air Force shall make an oral presentation of the document to the Parties at the next scheduled meeting of the Project Managers following transmittal of the draft document or within fourteen (14) days following the request, whichever is sooner. Comments by the EPA and Guam EPA shall be provided with adequate specificity so that the Air Force may respond to the comment and, if appropriate, make changes to the draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based and, upon request of the Air Force, the EPA or Guam EPA, as appropriate, shall provide a copy of the cited authority or reference.

(d) Representatives of the Parties shall make themselves readily available during the comment period for purposes of informally responding to questions and comments on draft documents. Oral comments made during such discussions need not be the subject of a written response by the Air Force on the close of the comment period.



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

(f) Following the close of the comment period for a draft document, the Air Force shall give full consideration to all written comments. Within fifteen (15) days following the close of the comment period on a draft secondary document or draft primary document the Parties shall hold a meeting to discuss all comments received. On a draft secondary document the Air Force shall, within seventy-five (75) days of the close of the comment period, transmit to the EPA and Guam EPA its written response to the comments received. On a draft primary document the Air Force shall, within seventy-five (75) days of the close of the comment period, transmit to EPA and Guam EPA a draft final primary document, which shall include the Air Force's response to all written comments received within the comment period. While the resulting draft final document shall be the responsibility of the Air Force, it shall be the product of consensus to the maximum extent possible.

(g) The Air Force may extend the seventy-five (75) day period for either responding to comments on a draft document or for issuing the draft final primary document for an additional thirty (30) days by providing written notice to EPA and Guam EPA. In appropriate circumstances, this time period may be further extended in accordance with Section 9 (Extensions).

#### 7.8 Availability of Dispute Resolution for Draft Final Primary Documents:

(a) Dispute resolution shall be available to the Parties for draft final primary documents as set forth in Section 12 (Dispute Resolution).

(b) When dispute resolution is invoked on a draft final primary document, work may be stopped in accordance with the procedures set forth in Subsection 12.9 regarding dispute resolution.

7.9 Finalization of Documents: The draft final primary document shall serve as the final primary document if no party invokes dispute resolution regarding the document or, if invoked, at completion of the dispute resolution process should the Air Force's position be sustained. If the Air Force's determination is not sustained in the dispute resolution process, the Air Force shall prepare, within not more than sixty (60) days, a revision of the draft final document which conforms to the results of dispute resolution. In appropriate circumstances, the time period for this revision period may be extended in accordance with Section 9 (Extensions).



7.10 Subsequent Modification of Final Documents: Following finalization of any primary document other than the Community Relations Plan pursuant to Subsection 7.9 above, any Party may seek to modify the document including seeking additional field work, pilot studies, computer modeling or other supporting technical work, only as provided in subparagraphs (a) and (b) below.

(a) Any Party may seek to modify a document after finalization if it determines, based on new information (i.e., information that becomes available, or conditions that become known, after the document 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 conducted. Modification of a document shall be required only upon a showing that:

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

(2) The requested modification could be of significant assistance in evaluating 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 Guam EPA's ability to request the performance of additional work which was not contemplated by this Agreement. The Air Force's obligation to perform such work under this Agreement must be established by either a modification of a document or by amendments to this Agreement.

## 8. DEADLINES

8.1 All deadlines agreed upon before the effective date of this Agreement shall be identified in Appendix A to this Agreement. To the extent that deadlines have already been mutually agreed upon by the Parties prior to the effective date of this Agreement, they will satisfy the requirements of this Section and remain in effect, shall be published in accordance with Subsection 8.2, and shall be incorporated into the appropriate work plans.

8.2 Within forty-five (45) days after the effective date of this Agreement, the Air Force shall propose, and announce and make available for public comment in the same manner as Section 36 specifies for this Agreement, proposed deadlines for completion of the draft primary documents for each Operable Unit



specified in Appendix A which includes:

- (a) RI/FS Workplans
- (b) Community Relations Plans
- (c) Quality Assurance Project Plans
- (d) Sampling and Analysis Plans
- (e) RI Reports
- (f) FS Reports
- (g) Proposed Plans
- (h) Records of Decision

Within sixty (60) days after the effective date of this Agreement, or the end of the public comment period on the Agreement, whichever is later, EPA and Guam EPA shall review and provide comments to the Air Force regarding the proposed deadlines. Within fifteen (15) days following receipt of the comments the Air Force shall, as appropriate, make revisions and reissue the proposal. The Parties shall meet as necessary to discuss and finalize the proposed deadlines. All agreed upon deadlines shall be incorporated into the appropriate work plans. If the Parties fail to agree within thirty (30) days on the proposed deadlines, the matter shall immediately be submitted for dispute resolution pursuant to Section 12 (Dispute Resolution). The final deadlines established pursuant to this Subsection shall be published by EPA, in conjunction with Guam EPA, and shall become an Appendix to this Agreement.

8.3 Within twenty-one (21) days of issuance of the Record of Decision for any operable unit or for the final remedy, the Air Force shall propose deadlines for completion of the following draft primary documents:

- (a) Remedial Design Work Plan
- (b) Final Remedial Design
- (d) Remedial Action Plan Work Plan
- (e) Contingency Plan
- (f) Project Closeout Report

Within fifteen (15) days of receipt, EPA and Guam EPA shall review and provide comments to the Air Force regarding the proposed deadlines. Within fifteen (15) days following receipt of the comments the Air Force shall, as appropriate, make revisions and reissue the proposal. The Parties shall meet as



necessary to discuss and finalize the proposed deadlines. All agreed-upon deadlines shall be incorporated into the appropriate work plans. If the Parties fail to agree within thirty (30) days on the proposed deadlines, the matter shall immediately be submitted for dispute resolution pursuant to Section 12 (Dispute Resolution). The final deadlines established pursuant to this subsection shall be published by EPA, in conjunction with the Guam EPA, and shall become an Appendix to this Agreement.

8.4 For any operable units not identified as of the effective date of this Agreement, the Air Force shall propose deadlines for all documents listed in subsection 7.3(a)(1) through (11) (with the exception of the Community Relations Plan and any document that comes within the proviso to such subsection) within twenty-one (21) days of agreement on the proposed operable unit by all Parties. These deadlines shall be proposed, finalized and published using the same procedures set forth in Subsection 8.2 above.

8.5 The deadlines set forth in this Section, or to be established as set forth in this Section, may be extended pursuant to Section 9 (Extensions). The Parties recognize that one possible basis for extension of the deadlines for completion of the Remedial Investigation and Feasibility Study Reports is the identification of significant new Site conditions during the performance of the remedial investigation.

## 9. EXTENSIONS

9.1 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.

9.2 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) A delay caused by public comment periods or hearings required under Territorial law in connection with the Territory's performance of this Agreement;

(f) Any work stoppage within the scope of Section 11 (Emergencies and Removals); or

(g) Any power outages at a Party's work center exceeding eight (8) hours in one work week that affects the delivery of or a response to a primary or secondary document; or

(h) Any other event or series of events mutually agreed to by the Parties as constituting good cause.

9.3 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.

9.4 Within seven (7) days of receipt of a written 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. Such notice shall also be sent via facsimile. Any failure by a receiving Party to respond within the seven (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.

9.5 If there is consensus among the Parties that the requested extension is warranted, the Air Force 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.

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

9.7 A timely and good faith request by the Air Force 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.

## 10. FORCE MAJEURE

10.1 A Force Majeure shall mean any event arising from causes beyond the control of a Party that causes a delay in or prevents the performance of any obligation under this Agreement, including, but not limited to, acts of God, to include typhoons; fire; war; insurrection; civil disturbance; explosion; unanticipated breakage or accident to machinery, equipment or lines of pipe despite reasonably diligent maintenance; adverse weather conditions that could not be reasonably anticipated; unusual delay in transportation; restraint by court order or order of public authority; inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or authority other than the Air Force; delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence; and insufficient availability of appropriated funds which have been diligently sought. In order for Force Majeure based on insufficient funding to apply to the Air Force, the Air Force shall have made timely request for such funds as part of the budgetary process as set forth in Section 15 (Funding). A Force Majeure shall also include any strike or other labor dispute, whether or not within the control of the Parties affected thereby. Force Majeure shall not include increased costs or expenses of Response Actions, whether or not anticipated at the time such Response Actions were initiated.

## 11. EMERGENCIES AND REMOVALS

11.1 Discovery and Notification: If any Party discovers or becomes aware of an emergency or other situation that may present an endangerment to public health, welfare or the environment 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, followed by written notification within seven (7) days. If the emergency arises from activities conducted pursuant to this Agreement, the Air Force shall then take immediate action to notify the appropriate Territorial and local agencies and affected members of the public.

11.2 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 11.1, 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 Section 12.9.

#### 11.3 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. section 9601(23), including all modifications to, or extensions of, the ongoing removal actions, and all new removal actions proposed or commenced following the effective date of this Agreement.

(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 Air Force'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 EPA or Guam EPA may have with respect to removal actions conducted at the Site.

(e) All reviews conducted by EPA and Guam EPA pursuant to 10 U.S.C. section 2705(b)(2) will be expedited so as not to unduly jeopardize fiscal resources of the Air Force for funding the removal actions.

(f) If a Party determines that there may be an endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance, pollutant or contaminant at or from the Site, including but not limited to discovery of contamination of a drinking water well at concentrations that exceed any Territorial or Federal drinking water action level or standards, the Party may request that the Air Force take such response actions as may be necessary to abate such danger or threat and to protect the public health or welfare or the environment. Such actions might include provision of alternative drinking water supplies or other response actions listed in CERCLA section 101(23) or (24), 42 U.S.C. section 9601(23) or (24), or such other relief as the public interest may require.

#### 11.4 Notice and Opportunity to Comment:

(a) The Air Force shall provide the other Parties with timely notice and 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). The Air Force agrees to provide the information described below pursuant to such obligation.

(b) For emergency response actions as determined by the Air Force, the Air Force shall provide EPA and Guam EPA with



oral notice in accordance with Subsection 11.1. Except in the case of extreme emergencies, such oral notification shall 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 (including a 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 the Air Force On-Scene Coordinator recommendations. Within forty-five (45) days of completion of the emergency action, the Air Force will furnish EPA and Guam EPA with an Action Memorandum addressing the information provided in the oral 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, the Air Force will provide EPA and Guam EPA with any information required by CERCLA, the NCP, and in accordance with pertinent EPA guidance, such as the Action Memorandum, the Engineering Evaluation/Cost Analysis (in the case of non-time-critical removals) and, to the extent it is not otherwise included, all information required to be provided in accordance with paragraph (b) of this Subsection. Such information shall be furnished at least forty-five (45) days before the response action is to begin.

(d) All activities related to ongoing removal actions shall be reported by the Air Force in the progress reports as described in Section 18 (Project Managers).

11.5 Any dispute among the Parties as to whether a proposed non emergency response action is: (a) properly considered a removal action, as defined by CERCLA section 101(23), 42 U.S.C. section 9601(23) or (b) consistent with the final remedial action shall be resolved pursuant to Section 12 (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.

11.6 The Parties shall first seek to resolve any dispute as to whether the Air Force will take a removal action requested by any other Party under Subsection 11.3(f) through the dispute resolution process contained in Section 12 (Dispute Resolution), but that process shall be modified for disputes on this specific subject matter in accordance with Subsection 12.11. Such dispute may be brought directly to the Dispute Resolution Committee (DRC) or the Senior Executive Committee (SEC) at any Party's request. EPA and the Territory reserve any and all rights each may have with regard to whether the Air Force will take a removal action requested by any Party pursuant to Subsection 11.3(f) once the dispute resolution process specified in this subsection is exhausted, and notwithstanding Section 31 (Covenant Not To Sue and Reservation of Rights).



## 12. DISPUTE RESOLUTION

12.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply. EPA, the Air Force, and Guam EPA, 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.

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

12.3 Within thirty (30) days after: (a) the issuance of a draft final primary document pursuant to Section 7 (Consultation), or (b) any 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, the technical, legal or factual information the disputing Party is relying upon to support its position, and a recitation of all steps taken to resolve the dispute.

12.4 The DRC will serve as a forum for resolution of disputes 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 Deputy Director for Superfund, Hazardous Waste Management Division, EPA Region 9. The Air Force's designated member is the Deputy Chief of Staff, Engineering and Services, Headquarters Pacific Air Forces. The Guam EPA representative is the Air and Land Programs Director. 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 of Section 21 (Notification).

12.5 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. 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.



12.6 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 9. The Air Force's representative on the SEC is the Vice Commander-in-Chief, Pacific Air Forces. The Territorial representative on the SEC is the Administrator, Guam EPA. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a written decision. If unanimous resolution of the dispute is not reached within twenty-one (21) days, EPA's Regional Administrator shall issue a written position on the dispute. The Air Force or GEPA 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 the Air Force or GEPA elects not to elevate the dispute to the Administrator within the designated fourteen (14) day escalation period, the Air Force and GEPA shall be deemed to have agreed with the Regional Administrator's written position with respect to the dispute.

12.7 Upon escalation of a dispute to the Administrator of EPA pursuant to Subsection 12.6 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 Air Force's Secretariat Representative and the Territory's SEC representatives to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the Air Force and GEPA 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.

12.8 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 and deadline or schedule.

12.9 When dispute resolution is in progress, work affected by the dispute will immediately be discontinued if the Deputy Director for Superfund, Hazardous Waste Management Division EPA Region 9 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 GEPA may request the Deputy Director for Superfund to order work stopped for the reasons set out above. To the extent possible, the Party seeking a 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 Deputy Director for Superfund will issue, in writing, a final decision with respect to the work stoppage. The final written decision of the Deputy Director for Superfund 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.

12.10 Within twenty-one (21) days of resolution of a dispute pursuant to the procedures specified in this Section, the Air Force shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this Agreement according to the amended plan, schedule or procedures.

12.11 The following modified dispute resolution procedure shall apply only to disputes arising under Subsection 11.6, concerning a decision by the Air Force not to undertake a removal action as requested under Subsection 11.3(f). This provision shall apply to such disputes in lieu of the procedures specified in Subsections 12.5, 12.6, and 12.7.

(a) For purposes of this modified dispute resolution procedure, the Parties representatives on the Dispute Resolution Committee (DRC) and Senior Executive Committee (SEC) shall remain the same as in Subsections 12.4 and 12.6.

(b) After submission of a Subsection 11.6 matter to dispute, as described in Subsection 12.3, the DRC shall handle the dispute under the procedure described in Subsection 12.5, except that the DRC shall have ten (10) days rather than twenty one (21) days to unanimously resolve the dispute, and shall forward an unresolved dispute to the SEC within four (4) days rather than seven (7) days.

(c) If agreement is not reached by the DRC, the SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a written decision. If unanimous resolution of the dispute is not reached in seven (7) days, the Air Force SEC member shall issue a written position on the dispute. EPA or GEPA may, within four (4) days of the receipt of the Air Force SEC member's position, issue a written notice elevating the dispute to the Deputy Assistant Secretary of the Air Force for Environment, Safety, and Occupational Health (currently designated SAF/MIQ), for resolution in accordance with all applicable laws and procedures. In the event EPA or GEPA elects not to elevate the dispute to SAF/MIQ within the designated four (4) day elevation period, EPA and the Territory shall be deemed to have agreed with the Air Force SEC member's written position with respect to the dispute.



(d) Upon escalation of a dispute to SAF/MIQ pursuant to subsection 12.11(c) above, SAF/MIQ will review and seek to resolve the dispute in a manner acceptable to all Parties within seven (7) days. Upon request, and prior to issuing a recommended resolution, SAF/MIQ shall meet and confer with the EPA Administrator's Representative and the Guam EPA Administrator to discuss the issue under dispute. SAF/MIQ shall provide EPA and GEPA with a proposed resolution of the dispute. In the event EPA or GEPA does not concur with the SAF/MIQ proposed resolution of the dispute, EPA and GEPA retain any right each possessed with regard to the issue raised in the dispute under Subsection 11.6. Such nonconcurrence will be transmitted in writing to SAF/MIQ within seven (7) days of receipt of his/her issuance of the proposed resolution. Failure to transmit such nonconcurrence will be presumed to signify concurrence.

12.12 Subject to the terms of subsections 11.6, 12.11 and 31.2, resolution of a dispute pursuant to this Section of the Agreement constitutes a final resolution of any dispute arising under 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.

### 13. ENFORCEABILITY

#### 13.1 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, 42 U.S.C. section 9659, and any violation of such standard, regulation, condition, requirement or order will be subject to civil penalties under CERCLA sections 310(c) and 109, 42 U.S.C. sections 9659(c) and 9609;

(b) All timetables or deadlines associated with the RI/FS shall be enforceable by any person pursuant to CERCLA section 310, 42 U.S.C. section 9659, and any violation of such timetables or deadlines will be subject to civil penalties under CERCLA sections 310(c) and 109, 42 U.S.C. sections 9659(c) and 9609;

(c) All terms and conditions of this Agreement which relate to remedial actions, including corresponding timetables, deadlines or schedules, and all work associated with remedial actions, shall be enforceable by any person pursuant to CERCLA section 310(c), 42 U.S.C. section 9659(c), and any violation of such terms or conditions will be subject to civil penalties under CERCLA sections 310(c) and 109, 42 U.S.C. sections 9659(c) and 9609; and

(d) Any final resolution of a dispute pursuant to Section 12 (Dispute Resolution) of this Agreement which establishes



a term, standard, condition, timetable, deadline or schedule shall be enforceable by any person pursuant to CERCLA section 310(c), 42 U.S.C. section 9659(c), and any violation of such terms, standards, condition, timetable, deadline or schedule will be subject to civil penalties under CERCLA sections 310(c) and 109, 42 U.S.C. sections 9659(c) and 9609.

13.2 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), 42 U.S.C. section 9613(h).

13.3 Nothing in this Agreement shall be construed as a restriction or waiver of any rights the EPA or GEPA may have under CERCLA, including but not limited to any rights under sections 113, 121 and 310, 42 U.S.C. sections 9613, 9621 and 9659. The Air Force does not waive any rights it may have under CERCLA sections 120 and 121, 42 U.S.C. sections 9620 and 9621, SARA section 211 and Executive Order 12580.

13.4 The Parties agree to exhaust their rights under Section 12 (Dispute Resolution) prior to exercising any rights to judicial review that they may have.

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

#### 14. STIPULATED PENALTIES

14.1 In the event that the Air Force fails to submit a primary document referenced in Section 7 (Consultation) to EPA and Guam EPA pursuant to the appropriate timetable or deadline established under Section 8 in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to an operable unit or final remedial action, EPA may assess a stipulated penalty against the Air Force. The Territory of Guam may also recommend to EPA that a stipulated penalty be assessed. A stipulated penalty may be assessed in an amount not to exceed \$5,000 for the first week (or part thereof), and \$10,000 for each additional week (or part thereof) for which a failure set forth in this Subsection occurs.

14.2 Upon determining that the Air Force has failed in a manner set forth in Subsection 14.1, EPA shall so notify the Air Force in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, the Air Force 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 Air Force 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.

14.3 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 Air Force 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.

14.4 Stipulated penalties assessed pursuant to this Section shall be payable to the Hazardous Substance Response Trust Fund only in the manner and to the extent expressly provided for in acts authorizing funds for, and appropriations to, the DOD. EPA and the Territory agree, to the extent allowed by law, to divide equally any stipulated penalties paid on behalf of Andersen AFB with fifty (50) percent allocated to the EPA Hazardous Substance Response Trust Fund and fifty (50) percent allocated to Guam EPA.

14.5 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.

14.6 This Section shall not affect the Air Force's ability to obtain an extension of a timetable, deadline or schedule pursuant to Section 9 (Extensions).

14.7 Nothing in this Agreement shall be construed to render any member, employee, agent or authorized representative of the Air Force personally liable for the payment of any stipulated penalty assessed pursuant to this Section.

## 15. FUNDING

15.1 It is the expectation of the Parties to this Agreement that all obligations of the Air Force arising under this Agreement will be fully funded. The Air Force agrees to seek sufficient funding through the DOD budgetary process to fulfill its obligations under this Agreement.

15.2 In accordance with CERCLA section 120(e)(5)(B), 42



U.S.C. section 9620(e)(5)(B), the Air Force shall include, in its submission to the Department of Defense annual report to Congress, the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

15.3 Any requirement for the payment or obligation of funds, including stipulated penalties, by the Air Force 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.

15.4 If appropriated funds are not available to fulfill the Air Force's obligations under this Agreement, EPA and the Territory of Guam reserve the right to initiate an action against any other person, or to take any response action, which would be appropriate absent this Agreement.

15.5 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 Defense for Environment to the Air Force 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 Air Force CERCLA implementation requirements, the DOD shall employ and the Air Force shall follow the standardized DOD prioritization process which allocates that year's appropriations in a manner which maximizes the protection of human health and the environment.

## 16. EXEMPTIONS

16.1 The obligation of the Air Force to comply with the provisions of this Agreement may be relieved by:

(a) A Presidential order of exemption issued pursuant to the provisions of CERCLA section 120(j)(1), 42 U.S.C. section 9620(j)(1), or RCRA section 6001, 42 U.S.C. section 6961; or

(b) The order of an appropriate court.

16.2 The Territory reserves any statutory right it may have to challenge any Presidential Order relieving the Air Force of its obligations to comply with this Agreement.

## 17. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

17.1 The Parties intend to integrate the Air Force's CERCLA



response obligations and RCRA corrective action obligations which relate to the release(s) 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.; to satisfy the corrective action requirements of RCRA section 3004 and 3005, 42 U.S.C. section 6924 and 6925, for a RCRA permit, and RCRA section 3008(h), 42 U.S.C. section 6928(h), for interim status facilities; and to meet or exceed all applicable or relevant and appropriate Federal and Territorial laws and regulations, to the extent required by CERCLA section 121, 42 U.S.C. section 9621.

17.2 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 (i.e., no further corrective action shall be required). The Parties agree that with respect to releases of hazardous waste covered by this Agreement, RCRA shall be considered an applicable or relevant and appropriate requirement pursuant to CERCLA section 121, 42 U.S.C. section 9621.

17.3 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 Parties recognize that ongoing activities outside the scope of this Agreement at Andersen AFB may require the issuance of permits under Federal and Territorial laws. This Agreement does not affect the requirements, if any, to obtain such permits. However, if a permit is issued to the Air Force for ongoing hazardous waste management activities at the Site, the issuing party shall reference and incorporate in a permit condition any appropriate provision, including appropriate schedules (and the provision for extension of such schedules), of this Agreement into such permit. The Parties intend that any judicial review of any permit condition which references this Agreement shall, to the extent authorized by law, only be reviewed under the provisions of CERCLA.

#### 17.4 Underground Tanks (UTs)

(a). For the purposes of work performed under this Agreement, the definition of UT is as follows: "underground storage tanks" (USTs) as defined in 42 U.S.C. section 6991(1); and underground tanks which store RCRA, Subtitle "C" "hazardous wastes", as defined in 42 U.S.C. section 6903(5).

(b). The purpose of this subsection is to coordinate UT site investigations and remediations with activities conducted under this Agreement.

(c). Unless the Parties determine that UT work should be included in the Installation Restoration Program pursuant to



Section 17.4(d), such work will remain outside the scope of this Agreement.

(1). The Parties will utilize the record search information as specified in Attachment E to determine which UTs will be handled pursuant to this Agreement, as provided in section 17.4(d).

(2). UTs determined to be subject to the terms of this Agreement under section 17.4(d)(1) through (3) shall be investigated and closed through ongoing RI/FS and RD/RA activities. If the UT is determined to be leaking, the tanks contents will be removed, to the extent necessary, to prevent further release. If, as demonstrated by analytical data, it is agreed to by the Parties that contamination from a UT subject to the terms of this Agreement poses a substantial and immediate threat to human health and the environment, remediation or other response action may be expedited through an appropriate CERCLA removal action option in accordance with Section 11 (Emergencies and Removals).

(d). Under the following circumstances, UT closures (as appropriate) and/or contamination from the UTs will be handled pursuant to the terms of this Agreement:

(1). UTs from which CERCLA hazardous substances have been released;

(2). UTs from which, based on analytical data, petroleum products have been released and have commingled with CERCLA hazardous substances; or

(3). Any UT remediation requiring the removal of free product or ground water treatment, where removal of such free product or ground water will create a hydraulic zone of influence that, based on analytical data, includes any portion of a CERCLA area of contamination.

(e). For UTs not covered by this Agreement, where implementation of applicable Federal or Territorial operational and/or corrective action requirements (including applicable Federal and Territorial UST requirements) will have an adverse impact on CERCLA work, other than creating a hydraulic zone of influence, implementation of UT requirements will be completed with CERCLA activities conducted at the site. Adverse impacts include, but are not limited to, removal of UTs or soils where such removal would interfere with ongoing RI/FS operations or impede access to a CERCLA area of contamination.

(f). Determinations under Section 17.4 will be subject to Section 12 (Dispute Resolution) of this Agreement.

## 18. PROJECT MANAGERS



18.1 On or before the effective date of this Agreement, EPA, the Air Force, and Guam EPA shall each designate a Project Manager and an alternate (each hereinafter referred to as Project Manager), for the purpose of overseeing the implementation 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 21 (Notification), to the maximum extent possible, communications among the Air Force, EPA, and Guam EPA on all documents, including reports, comments, and other correspondence concerning the activities performed pursuant to this Agreement, shall be directed through the Project Managers.

18.2 The Air Force, EPA and Guam EPA may change their respective Project Managers. The other Parties shall be notified in writing within five (5) days of the change.

18.3 The Project Managers shall meet to discuss progress as described in Subsection 7.5. Although the Air Force 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 adjust deadlines or schedules. At least one week prior to each scheduled progress meeting, the Air Force will provide to the other Parties a draft agenda and summary of the status of the work subject to this Agreement. Unless the Project Managers agree otherwise, the Air Force shall prepare minutes of each progress meeting. These minutes, along with the meeting agenda and all documents discussed during the meeting (which were not previously provided) as attachments, shall constitute a progress report, which the Air Force shall send to all Project Managers within ten (10) business days after the meeting ends. If an extended period occurs between Project Manager progress meetings, the Project Managers may agree that the Air Force shall prepare an interim progress report and provide it to the other Parties. 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.

18.4 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 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



25 (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.

(f) The authority vested by the NCP, 40 CFR section 300.120(b)(1), in the Air Force RPM as On-Scene Coordinator and Remedial Project Manager, which will be exercised in consultation with the EPA and Territorial RPMs and in accordance with the procedures specified in this Agreement.

18.5 Any minor field modification proposed by any Party pursuant to this Section must be approved orally by all Parties' Project Managers to be effective. The Air Force Project Manager will make a contemporaneous record of such modification and approval in a written log, and a copy of the log entry will be provided as part of the next progress report. Even after approval of the proposed modification, no Project Manager will require implementation by a government contractor without approval of the appropriate Government Contracting Officer.

18.6 The Project Manager for the Air Force shall be responsible for day-to-day field activities at the Site. The Air Force Project Manager or other designated employee of Andersen AFB 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 Air Force Project Manager shall inform the command post at Andersen AFB of the name and telephone number of the designated employee responsible for supervising the work.

18.7 The Project Managers shall be reasonably available to consult on work performed pursuant to this Agreement and shall make themselves available to each other for the pendency of this Agreement. The absence of EPA, Guam EPA, or Air Force Project Managers from the facility shall not be cause for work stoppage of activities taken under this Agreement.

## 19. PERMITS

19.1 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 called for by this Agreement and conducted entirely on-site are exempted from the procedural requirement to obtain a Federal, Territory of Guam, or



local permit but must satisfy all the applicable or relevant and appropriate Federal and Territorial standards, requirements, criteria, or limitations which would have been included in any such permit.

19.2 This Section is not intended to relieve the Air Force from any and all regulatory requirements, including obtaining a permit, whenever it proposes a response action involving either the movement of hazardous substances, pollutants, or contaminants off-site, or the conduct of a response action off-site.

19.3 The Air Force shall notify EPA and Guam EPA in writing of any permit required for off-site activities as soon as it becomes aware of the requirement. The Air Force agrees to obtain any permits necessary for the performance of any work under this Agreement. Upon request, the Air Force shall provide EPA and Guam EPA copies of all such permit applications and other documents related to the permit process. Copies of permits obtained in implementing this Agreement shall be appended to the appropriate submittal or progress report. Upon request by the Air Force Project Manager, the Project Managers of EPA and Guam EPA will assist Andersen AFB to the extent feasible in obtaining any required permit.

## 20. QUALITY ASSURANCE

20.1 In order to provide quality assurance and maintain quality control regarding all field work and sample collection performed pursuant to this Agreement, the Air Force agrees to designate a Quality Assurance Officer (QAO) who will ensure and document that all work is performed in accordance with approved work plans, sampling plans and QAPPs. The QAO shall maintain for inspection a log of quality assurance field activities and the Air Force Project Manager shall provide a copy to the Parties upon request.

20.2 To ensure compliance with the QAPP, the Air Force shall arrange for access, upon request by EPA or the Territory, to all laboratories performing analysis on behalf of the Air Force pursuant to this Agreement.

## 21. NOTIFICATION

21.1 All Parties shall transmit primary and secondary documents, and comments thereon, and all notices required herein by commercial express mail, hand delivery, or facsimile. Time limitations shall commence upon receipt. Cover letters for all transmittals shall be sent by facsimile.

21.2 Transmittals to the individual Parties pursuant to this Agreement shall be sent to the addresses specified by the Parties. Initially these shall be as follows:



Herbert Levine, Project Manager  
U.S. Environmental Protection Agency, Region 9  
Hazardous Waste Management Division, H-9-1  
75 Hawthorne Street  
San Francisco, CA 94105  
(415) 744-2408 FAX (415) 744-1916

and

Victor Wuerch, Project Manager  
Guam Environmental Protection Agency  
D-107 Harmon Plaza  
130 Rojas Street  
Harmon, Guam 96911  
(671) 646-8863/5 FAX (671) 646-9402

and

D. Joan Poland, Project Manager  
633 CES/DEV  
Unit 14007  
APO AP 96543-5000 and for express mail:

633 CES/DEV  
Building 18001  
Andersen AFB  
Yigo Guam 96929  
(671) 366-2556 FAX (671) 366-8010

21.3 All routine correspondence may be sent via first class mail and facsimile to the above addressees.

## 22. DATA AND DOCUMENT AVAILABILITY

22.1 Upon request by any party, each Party shall make the requested sampling results, test results or other data or documents generated through the implementation of this Agreement available to the other Parties. All requested quality assured data shall be supplied within sixty (60) days of its collection. If the quality assurance procedure is not completed within sixty (60) days, data or results without quality assurance shall be submitted within the sixty (60) day period and the requested quality assured data or results shall be submitted as soon as they become available. As soon as possible, but not later than sixty (60) days after the last sampling event of a group of samples, the Air Force shall, at a minimum, provide a quality assured data summary report citing all results which initially measure above detection. As soon as possible but not later than one hundred twenty (120) days after the last sampling event of a group of samples, the Air Force shall provide all requested quality assured data. If quality assurance procedures are not completed within the sixty (60) or one hundred twenty (120) day time frames, then reports without quality assurance shall be sub-



mitted within their respective time frames and quality assured data shall be submitted as soon as it becomes available." For the purpose of this paragraph, a "group of samples" is intended to mean (1) an established round of quarterly or monthly samples collected from a specified network of locations, or (2) a discrete sampling episode.

22.2 The sampling Party's Project Manager shall notify the other Parties' Project Managers not less than ten (10) days in advance of any sample collection. If it is not possible to provide ten (10) 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. Each Party shall allow, to the extent practicable, split or duplicate samples to be taken by the other Parties or their authorized representatives in accordance with final RI/FS Workplans, QAPP and FSPs.

### 23. RELEASE OF RECORDS

23.1 The Parties may request of one another access to or a copy of any record or document relating to this Agreement or the IRP. If the Party that is the subject of the request (the originating Party) has the record or document, that Party shall provide access to or a copy of the record or document; provided, however, that no access to or copies of records or documents need be provided if they are subject to claims of attorney-client privilege, attorney work product, deliberative process, enforcement confidentiality, or properly classified for national security under law or executive order.

23.2 Records or documents identified by the originating Party as confidential pursuant to other non-disclosure provisions of the Freedom of Information Act, 5 U.S.C. section 552, or pursuant to Guam law, shall be released to the requesting Party, provided the requesting Party states in writing that it will not release the record or document to the public without prior approval of the originating Party or after opportunity to consult and, if necessary, contest any preliminary decision to release a document, in accordance with applicable statutes and regulations. Records or documents which are provided to the requesting Party and which are not identified as confidential may be made available to the public without further notice to the originating Party.

23.3 The Parties will not assert any of the above exemptions, including those available under the Freedom of Information Act, even if available, if no governmental interest would be jeopardized by access or release as determined solely by that Party.

23.4 Subject to section 120(j)(2) of CERCLA, 42 U.S.C. section 9620(j)(2), any documents required to be provided by Section 7 (Consultation), and analytical data showing test results will always be releasable and no exemption shall be



asserted by any Party.

23.5 This Section does not change any requirement regarding press releases in Section 26 (Public Participation and Community Relations).

23.6 A determination not to release a document for one of the reasons specified above shall not be subject to Section 12 (Dispute Resolution). Any Party objecting to another Party's determination may pursue the objection through the determining Party's appeal procedures.

#### 24. PRESERVATION OF RECORDS

24.1 Despite any document retention policy to the contrary, the Parties shall preserve, during the pendency of this Agreement and for a minimum of ten (10) years after its termination, all records and documents contained in the Administrative Record and any additional records and documents retained in the ordinary course of business which relate to the actions carried out 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 destruction of any such documents. Upon request by any Party, the requested Party shall make available such records or copies of any such records, unless withholding is authorized and determined appropriate by law.

#### 25. ACCESS TO FEDERAL FACILITY

25.1 Without limitations on any authority conferred on EPA or Guam EPA by statute or regulation, EPA or Guam EPA or their authorized representatives, shall be allowed to enter Andersen AFB at reasonable times for purposes consistent with the provisions of the Agreement, subject to any statutory and regulatory requirements necessary to protect national security or mission essential activities. Such access shall include, but not be limited to, reviewing the progress of the Air Force in carrying out the terms of this Agreement; ascertaining that the work performed pursuant to this Agreement is in accordance with approved work plans, sampling plans and QAPPs; and conducting such tests as EPA, Guam EPA, or the Project Managers deem necessary.

25.2 The Air Force shall honor all reasonable requests for access by the EPA or Guam EPA, conditioned upon presentation of proper credentials. The Air Force Project Manager will provide briefing information, coordinate access and escort to restricted or controlled-access areas, arrange for base passes and coordinate any other access requests which arise.

25.3 EPA and Guam EPA shall provide reasonable notice to the Air Force Project Manager to request any necessary escorts. EPA and Guam EPA shall not use any camera, sound recording or other recording device at Andersen AFB without the permission of the Air Force Project Manager. The Air Force shall not unreasonably



withhold such permission.

25.4 The access by EPA and Guam EPA, granted in Subsection 25.1 of this Section, shall be subject to those regulations necessary to protect national security or mission essential activities. Such regulation shall not be applied so as to unreasonably hinder EPA or Guam EPA from carrying out their responsibilities and authority pursuant to this Agreement. In the event that access requested by either EPA or Guam EPA is denied by the Air Force, the Air Force shall provide an explanation within 48 hours of the reason for the denial, including reference to the applicable regulations, and, upon request, a copy of such regulations. The Air Force shall expeditiously make alternative arrangements for accommodating the requested access. The Parties agree that this Agreement is subject to CERCLA section 120(j), 42 U.S.C. section 9620(j), regarding the issuance of Site Specific Presidential Orders as may be necessary to protect national security.

25.5 If EPA or Guam EPA requests access in order to observe a sampling event or other work being conducted pursuant to this Agreement, and access is denied or limited, the Air Force agrees to reschedule or postpone such sampling or work if EPA or Guam EPA so requests, until such mutually agreeable time when the requested access is allowed. The Air Force shall not restrict the access rights of the EPA or Guam EPA to any greater extent than the Air Force restricts the access rights of its contractors performing work pursuant to this Agreement.

25.6 All Parties with access to Andersen AFB pursuant to this Section shall comply with all applicable health and safety plans.

25.7 To the extent the activities pursuant to this Agreement must be carried out on other than Air Force property, the Air Force shall use its best efforts, including its authority under CERCLA section 104, 42 U.S.C. section 9604, to obtain access agreements from the owners which shall provide reasonable access for the Air Force, EPA, and Guam EPA and their representatives. The Air Force may request the assistance of Guam EPA in obtaining such access, and upon such request, Guam EPA will use its best efforts to obtain the required access. In the event that the Air Force is unable to obtain such access agreements, the Air Force shall promptly notify EPA and Guam EPA.

25.8 With respect to non-Air Force property on which monitoring wells, pumping wells, or other response actions are to be located, the Air Force shall use its best efforts to ensure that any access agreements shall provide for the continued right of entry for all Parties for the performance of such remedial activities. In addition, any access agreement shall provide that no conveyance of title, easement, or other interest in the property shall be consummated without the continued right of entry.

25.9 Nothing in this Section shall be construed to limit



EPA's and Guam EPA's full right of access as provided in section 104(e) of CERCLA, 42 U.S.C. section 9604(e), 10 Guam Code Ann. Chapter 51, Section 51106, except as that right may be limited by section 120(j)(2) of CERCLA, 42 U.S.C. section 9620(j)(2), Executive Order 12580, or other applicable national security regulations or Federal law.

## 26. PUBLIC PARTICIPATION AND COMMUNITY RELATIONS

26.1 The Parties agree that any proposed removal actions and remedial action alternative(s) and plan(s) for remedial 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. sections 9613(k) and 9617, relevant community relations provisions in the NCP, EPA guidance, and, to the extent they may apply, Territorial statutes and regulations. The Territory agrees to inform the Air Force of all Territorial requirements which it believes pertain to public participation. The provisions of this Section shall be carried out in a manner consistent with, and shall fulfill the intent of, Section 17 (Statutory Compliance - RCRA/CERCLA Integration).

26.2 The Air Force shall develop and implement a community relations plan (CRP) addressing the environmental activities and elements of work undertaken by the Air Force.

26.3 The Air Force shall establish and maintain an administrative record at a place, at or near the Federal Facility, which is freely accessible to the public, which record shall provide the documentation supporting the selection of each response action. The administrative record shall be established and maintained in accordance with relevant provisions in CERCLA, the NCP, and EPA guidance. A copy of each document placed in the administrative record, not already provided, will be provided by the Air Force to the other Parties. The administrative record developed by the Air Force shall be updated and new documents supplied to the other Parties on at least a quarterly basis. An index of documents in the administrative record will accompany each update of the administrative record.

26.4 Except in case of an emergency, any Party issuing a press release with reference to any of the work required by this Agreement shall advise the other Parties of such press release and the contents thereof, at least forty-eight (48) hours prior to issuance.

## 27. FIVE YEAR REVIEW

27.1 Consistent with section 121(c) of CERCLA, 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.

27.2 If, upon such review, any of the Parties proposes additional work or modification of work, such proposal shall be handled under Subsection 7.10 of this Agreement.

27.3 To synchronize the five-year reviews for all operable units and final remedial actions, the following procedure will be used: Review of operable units will be conducted every five years counting from the initiation of the first operable unit, until initiation of the final remedial action for the Site. At that time a separate review for all operable units shall be conducted. Review of the final remedial action (including all operable units) shall be conducted every five years thereafter.

## 28. TRANSFER OF REAL PROPERTY

28.1 The Air Force shall retain liability in accordance with CERCLA notwithstanding any change in ownership or possession of the property interests comprising the Federal Facility. The Air Force shall not transfer any of the property interests comprising the Federal Facility except in compliance with Section 120(h)(3) of CERCLA, 42 U.S.C. Section 9620(h)(3), in the case of transfers by deed, and Section 120 (h)(1) of CERCLA, 42 U.S.C. Section 9620(h)(1), in the case of transfers not by deed.

28.2 Prior to any transfer (whether or not it is conveyed by deed) of any portion of the property comprising the Federal Facility where any release of hazardous substances has come to be located and meets the threshold requirements stated in regulations promulgated pursuant to CERCLA Section 120(h)(2), or which is necessary for investigation or the performance of response action under this agreement, the Air Force will make provision for the following:

(a) Written notice to the transferee (including lessee, sublessee or other recipient) of the investigation and cleanup effort that the Air Force is engaged in at Andersen Air Force Base, of the existence of this agreement, and of the availability of the administrative record file;

(b) Using its best efforts to give all of the Parties at least thirty (30) days notice of such transfer, including in such notice a description of any provisions made for continued implementation of this Agreement (including, but not limited to, any additional response actions required), as well as the transferee's description of its intended use of the property;

(c) Using its best efforts to give all of the Parties notice of any activity by any subsequent transferee that may affect the RI/FS or any response action.



28.3 Prior to any non-deed transfer, the Air Force agrees to provide for the following to be included in documents evidencing such transfers:

(a) That the Parties to this Agreement have continuous rights of access to and over such property, in accordance with section 25;

(b) That such transferee will not make subsequent transfers without the approval of the Air Force and that the Air Force will provide copies of such subsequent transfers to each of the Parties to this Agreement by certified mail within fourteen (14) days after the effective date of such subsequent transfer;

(c) That such transferee will not impede activities associated with the RI/FS or any response action taken under this agreement;

(d) That such a transfer will not alter the rights and obligations of the Parties under this Agreement.

## 29. AMENDMENT OR MODIFICATION OF AGREEMENT

29.1 This Agreement can be amended or modified solely upon written consent of all Parties. Such amendments or modifications may be proposed by any Party and shall be effective the third business day following the day the last Party to sign the amendment or modification sends its notification of signing to the other Parties. The Parties may agree to a different effective date.

## 30. TERMINATION OF THE AGREEMENT

30.1 At the completion of the remedial action, the Air Force shall prepare a Project Closeout Report certifying that all requirements of this Agreement have been met. The provisions of this Agreement shall be deemed satisfied and terminated upon receipt by the Air Force of written notice from EPA, with concurrence of Guam EPA, that the Air Force has demonstrated that all the terms of this Agreement have been completed. If EPA denies or otherwise fails to grant a termination notice within ninety (90) days of receiving a written Air Force request for such notice, EPA shall provide a written statement of the basis for its denial and describe the Air Force 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.

30.2 This provision shall not affect the requirements for periodic review at maximum five (5) year intervals of the efficacy of the remedial actions.

## 31. COVENANT NOT TO SUE AND RESERVATION OF RIGHTS



31.1 In consideration for the Air Force's compliance with this Agreement, and based on the information known to the Parties or reasonably available on the effective date of this Agreement, EPA, the Air Force, and Guam EPA agree that compliance with this Agreement shall stand in lieu of any administrative, legal, and equitable remedies against the Air Force available to them regarding the releases or threatened releases of hazardous substances including hazardous wastes, pollutants or contaminants at the Site which are the subject of any RI/FS conducted pursuant to this Agreement and which have been or will be adequately addressed by the remedial actions provided for under this Agreement.

31.2 Notwithstanding this Section, or any other Section of this Agreement, the Territory of Guam retains any statutory right it may have to obtain judicial review of any final decision of the EPA on selection of remedial action pursuant to any authority the Territory of Guam may have under CERCLA, including sections 121(e)(2), 121(f), 310 and 113, 42 U.S.C. sections 9621(e)(2), 9621(f), 9659 and 9613.

## 32. OTHER CLAIMS

32.1 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 Federal Facility. Unless specifically agreed to in writing by the Parties, EPA, and Guam EPA shall not be held as a party to any contract entered into by the Air Force to implement the requirements of this Agreement.

32.2 This agreement shall not restrict any Party from taking any legal or response action for any matter not part of the subject matter of this Agreement.

## 33. RECOVERY OF EPA EXPENSES

33.1 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.

## 34. TERRITORY SUPPORT SERVICES

34.1 The Air Force agrees to request funding and reimburse



the Territory, subject to the conditions and limitations set forth in this Section, and subject to Section 15 (Funding), for all reasonable costs it incurs in providing services in direct support of the Air Force's environmental restoration activities pursuant to this Agreement at the Site.

34.2 Reimbursable expenses shall consist only of actual expenditures required to be made and actually made by the Territory in providing the following assistance to Andersen AFB:

(a) Timely technical review and substantive comment on reports or studies which the Air Force prepares in support of its response actions and submits to the Territory;

(b) Identification and explanation of unique Territorial requirements applicable to military installations in performing response actions, especially Territorial applicable or relevant and appropriate requirements (ARARs);

(c) Field visits to ensure investigations and cleanup activities are implemented in accordance with appropriate Territorial requirements, or in accordance with agreed upon conditions between the Territory and the Air Force that are established in the framework of this Agreement;

(d) Support and assistance to the Air Force in the conduct of public participation activities in accordance with Federal and Territorial requirements for public involvement;

(e) Participation in the functions of Air Force Technical Review Committee; and

(f) Other services specified in this Agreement.

34.3 Within ninety (90) days after the end of each quarter of the Federal fiscal year, the Territory shall submit to the Air Force an accounting of all Territorial costs actually incurred during that quarter in providing direct support services under this Section. Such accounting shall be accompanied by cost summaries and be supported by documentation which meets Federal auditing requirements. The summaries will set forth employee-hours and other expenses by major type of support service. All costs submitted must be for work directly related to implementation of this Agreement and not inconsistent with either the National Contingency Plan (NCP) or the requirements described in OMB Circulars A-87 (Cost Principles for State and Local Governments) and A-128 (Audits for State and Local Cooperative Agreements with State and Local Governments) and Standard Forms 424 and 270. The Air Force has the right to audit cost reports used by the Territory to develop the cost summaries. Before the beginning of each fiscal year, the Territory shall supply a budget estimate of what it plans to do in the next year in the same level of detail as the billing documents.



34.4 Within ninety (90) days of receipt of the accounting provided pursuant to Subsection 34.3 above, the Air Force shall reimburse the Territory in the amount set forth in the accounting, except for any portion of the accounting in dispute pursuant to Subsections 34.5 or 34.6.

34.5 In the event the Air Force contends that any of the costs set forth in the accounting provided pursuant to Subsection 34.3 above are not properly payable, the matter shall be resolved through a bilateral dispute resolution process set forth at Subsection 34.9 below.

34.6 The Air Force shall not be responsible for reimbursing the Territory for any costs actually incurred in the implementation of this Agreement in excess of one percent (1%) of the Air Force total lifetime project costs incurred through construction of the remedial action(s). Circumstances could arise whereby fluctuations in the Air Force estimates or actual final costs through the construction of the final remedial action creates a situation where the Territory receives reimbursement in excess of one percent of these costs. Under these circumstances, the Territory remains entitled to payment for services rendered prior to the completion of a new estimate if the services are within the ceiling applicable under the previous estimate.

(a) Funding of support services must be constrained so as to avoid unnecessary diversion of the limited Defense Environmental Restoration Account funds available for the overall cleanup, and

(b) Support services should not be disproportionate to overall project costs and budget.

34.7 Either the Air Force or the Territory may request, on the basis of significant upward or downward revisions in the Air Force's estimate of its total lifetime costs through construction used in Subsection 34.6 above, a renegotiation of the cap. Failing an agreement, either the Air Force or the Territory may initiate dispute resolution in accordance with Subsection 34.9 below.

34.8 The Territory agrees to seek reimbursement for its expenses solely through the mechanisms established in this Section, and reimbursement provided under this Section shall be in settlement of any claims for Territorial response costs relative to the Air Force's environmental restoration activities at the Site.

34.9 Section 12 (Dispute Resolution) notwithstanding, this Subsection shall govern any dispute between the Air Force and the Territory regarding the application of this Section or any matter controlled by this Section including, but not limited to, allowability of expenses and limits on reimbursement. While it is the intent of the Air Force and the Territory that these procedures shall govern resolution of disputes concerning Territorial reimbursement, informal dispute resolution is



encouraged.

(a) The Air Force and Territorial Project Managers shall be the initial points of contact for coordination of dispute resolution under this Subsection.

(b) If the Air Force and Territorial Project Managers are unable to resolve a dispute, the matter shall be referred to the Deputy Chief of Staff, Engineering and Services, Headquarters Pacific Air Forces, the Andersen AFB Commander or his designated representative, and the Guam EPA Air and Land Programs Director, as soon as practicable, but in any event within five (5) working days after the dispute is elevated by the Project Managers.

(c) If the Deputy Chief of Staff, Engineering and Services, Headquarters Pacific Air Forces, Andersen AFB Commander and the Guam EPA Air and Land Programs Director are unable to resolve the dispute within ten (10) working days, the matter shall be elevated to the Vice Commander-in-Chief, Pacific Air Forces and the Guam EPA Administrator.

(d) In the event the Guam EPA Administrator and the Vice Commander-in-Chief, Pacific Air Forces, are unable to resolve a dispute, the Territory retains any legal and equitable remedies it may have to recover its expenses. In addition, the Territory may withdraw from this Agreement by giving sixty (60) days notice to the other Parties.

34.10 Nothing herein shall be construed to limit the ability of the Air Force to contract with the Territory for technical services that could otherwise be provided by a private contractor including, but not limited to:

(a) Identification, investigation, and cleanup of any contamination beyond the boundaries of Andersen AFB;

(b) Laboratory analysis; or

(c) Data collection for field studies.

34.11 Nothing in this Agreement shall be construed to constitute a waiver of any claims by the Territory for any expenses incurred prior to the effective date of this Agreement.

34.12 The Air Force and the Territory agree that the terms and conditions of this Section shall become null and void when the Territory enters into a Defense/Territorial Memorandum of Agreement (DTMOA) and Cooperative Agreement with the Department of Defense (DOD) which addresses Territorial reimbursement.

## 35. TERRITORY PARTICIPATION CONTINGENCY

35.1 If the Territory fails to sign this Agreement within thirty (30) days of notification of the signature by both EPA and



the Air Force, this Agreement will be interpreted as if the Territory was not a Party and any reference to Territory or GEPA in this Agreement will have no effect. In addition, all other provisions of this Agreement notwithstanding, if the Territory does not sign this Agreement within the said thirty (30) days, the Air Force shall only have to comply with any Territorial requirements, conditions, or standards, including those specifically listed in this Agreement, which the Air Force would otherwise have to comply with absent this Agreement.

35.2 In the event that the Territory does not sign this Agreement:

(a) The Air Force agrees to transmit all primary and secondary documents to Guam EPA at the same time such documents are transmitted to EPA; and

(b) EPA intends to consult with the Territory with respect to the above documents and during implementation of this Agreement.

#### 36. EFFECTIVE DATE AND PUBLIC COMMENT

36.1 This Agreement is effective upon signature by all the Parties to this Agreement.

36.2 The provisions of this Section shall be carried out in a manner consistent with, and shall fulfill the intent of Section 17 (Statutory Compliance/ RCRA-CERCLA Integration).

36.3 Within fifteen (15) days after EPA, as the last signatory, executes this Agreement, the Air Force shall announce the availability of this Agreement to the public for a minimum forty-five (45) day period of review and comment, and ending on the date on which comments from EPA and GEPA are due, under Section 8. Announcement shall include publication in at least two major local newspapers of general circulation.

36.4 Promptly upon the completion of the comment period, the Air Force shall transmit to the other Parties copies of all comments received within the comment period. The Parties shall review all such comments and, within thirty (30) days after the close of the comment period, the Air Force shall prepare a written response to the public comments, for the review and concurrence of the other Parties. Within sixty (60) days after the close of the comment period, the Parties shall determine that either:

(a). the Agreement shall remain effective in its present form; or

(b). the Parties will seek to modify the Agreement pursuant to Section 29 (Amendment or Modification of Agreement), in



response to the comments received. Absent or pending an amendment of the Agreement pursuant to Section 29, the Agreement will remain effective in its form as originally executed.

36.5 Any response action, as defined in Section 3.1(y), underway upon the effective date of this Agreement shall be subject to the terms of this Agreement unless the Parties agree otherwise.

36.6 At the start of the public comment period, the Air Force will also transmit copies of this Agreement, for review and comment, to the Federal Natural Resource Trustees. The Territory will transmit copies to appropriate Territorial and local agencies and compile and consolidate comments from these agencies. The Territory will work with the Air Force prior to the start of the public comment period to develop the list of appropriate Territorial and local agencies.

### 37. BASE CLOSURE

37.1 The Air Force does not currently plan to close Andersen Air Force Base, Guam. However, in the event that Andersen Air Force Base is closed, such closure, except as is otherwise specifically provided by law, will not affect the Air Force's obligation to comply with the terms of this Agreement and to specifically ensure the following:

(a) Continuing rights of access for EPA and the Territory in accordance with the terms and conditions of Section 25 (Access to Andersen Air Force Base);

(b) Availability of a Project Manager to fulfill the terms and conditions of the Agreement;

(c) Adequate resolution of any other problems identified by the Project Managers regarding the effect of base closure on the implementation of this Agreement.

37.2 Base closure will not of itself constitute a Force Majeure under Section 10 (Force Majeure), nor will it constitute good cause for extensions under Section 9 (Extensions), unless agreed by the Parties.

### 38. APPENDICES AND ATTACHMENTS

38.1 Appendices to this Agreement shall be an integral and enforceable part of the Agreement. They shall include the most current versions of:

(a) Deadlines previously established;

(b) Site-specific outline of key elements to be included in draft or draft final RI/FS Workplan;



(c) All final primary and secondary documents which will be created in accordance with Section 7 (Consultation);

(d) All deadlines which will be established in accordance with Section 8 (Deadlines).

(e) All final primary documents and all completed secondary documents agreed upon by the Parties prior to the effective date of this Agreement.

38.2 Attachments shall be for information only and shall not be enforceable parts of this Agreement. The information in these attachments is provided to support the initial review and comment upon this Agreement, and they are only intended to reflect the conditions known at the signing of this Agreement. None of the facts related therein shall be considered admissions by, nor are they legally binding upon, any Party with respect to any claims unrelated to, or persons not a Party to, this Agreement. They shall include:

- (a) Statement of Facts;
- (b) Site map of Andersen AFB;
- (c) Chemicals of concern;
- (d) Removal actions proposed by the Air Force;
- (e) Underground Tanks.

### 39. COUNTERPARTS

39.1 This Federal Facility Agreement may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one and the same document. Each undersigned representative of a Party 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.

5 FEB 1993  
DATE

UNITED STATES AIR FORCE

  
ROBERT L. RUTHERFORD, General, USAF  
Commander



22 Feb 93  
DATE

SMcClain  
STEPHEN M. McCLAIN, Colonel, USAF  
Commander 633rd Air Base Wing,  
Andersen AFB

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DANIEL W. MCGOVERN  
Regional Administrator  
U.S. Environmental Protection Agency  
Region IX

TERRITORY OF GUAM

APPROVED:

\_\_\_\_\_  
DATE

\_\_\_\_\_  
JOSEPH F. ADA  
Governor of Guam

APPROVED:

\_\_\_\_\_  
DATE

\_\_\_\_\_  
FRED M. CASTRO  
Administrator  
Guam Environmental Protection Agency

Approved as to form this  
\_\_\_\_\_ day of \_\_\_\_\_, 1992

\_\_\_\_\_  
ELIZABETH BARRETT-ANDERSON  
Attorney General







DATE

STEPHEN M. McCLAIN, Colonel, USAF  
Commander 633rd Air Base Wing,  
Andersen AFB

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY

3.30.93

DATE

John W. McGovern  
DANIEL W. MCGOVERN  
Regional Administrator  
U.S. Environmental Protection Agency  
Region IX

TERRITORY OF GUAM

APPROVED:

FEB 03 1993  
DATE

Joseph F. ADA  
JOSEPH F. ADA  
Governor of Guam

APPROVED:

1/29/93  
DATE

Fred M. Castro  
FRED M. CASTRO  
Administrator  
Guam Environmental Protection Agency

Approved as to form this  
29th day of Jan, 19923

Elizabeth Barrett-Anderson  
ELIZABETH BARRETT-ANDERSON  
Attorney General







## APPENDIX A

### Deadlines Previously Established

Documents not submitted before the effective date of this Agreement:

1. In accordance with Section 8.2 of this Agreement, the following deadlines for submission of **Draft Primary Documents** will be agreed upon by the Parties after the effective date of this Agreement:

#### Operable Unit (OU) #1

Draft RI/FS Workplan  
Draft Community Relations Plan (CRP)  
Draft Quality Assurance Project Plan (QAPP)  
Draft Sampling and Analysis Plan (SAP)  
Draft RI Report  
Draft FS Report  
Proposed Plan  
Record of Decision

OU #1 consists of soils and disposed waste material at Landfills #1, #2, #4 and #5 and Waste Piles #1, #2, and #3. A RCRA Closure Plan has been approved for Landfills #1, #2, #4 and #5. The approved RCRA closure plan, cost analysis, and cover design for Landfill #5 will be implemented as a removal action as specified in Attachment D. The dye tracer SAP, and the borehole location proposal, previously submitted, shall constitute a part of the Workplans for OUs #2 & #6.

#### Operable Unit #2

RI/FS Workplan  
Draft CRP  
Draft QAPP  
Draft SAP  
Draft RI Report  
Draft FS Report  
Draft Proposed Plan  
Draft Record of Decision

OU #2 consists of ground water under the site, as defined in Section 3.1(z), within the following ground water subbasins as presently defined: Andersen; Agafo Gumas; Yigo; and Finegayan.



### Operable Unit #3

Draft RI/FS Workplan  
Draft CRP  
Draft QAPP  
Draft SAP  
Draft RI Report  
Draft FS Report  
Draft Proposed Plan  
Draft Record of Decision

OU #3 is the Marbo Annex which includes soils and disposed waste materials in the Vigo subbasin. The following sites have been identified: War Dog Borrow Pit, Waste Piles #5, #6, #7, Landfill #29, and the Marbo Laundry.

### Operable Unit #4

Draft RI/FS Workplan  
Draft CRP  
Draft QAPP  
Draft SAP  
Draft RI Report  
Draft FS Report  
Draft Proposed Plan  
Draft Record of Decision

OU #4 consists of the soils and disposed waste material at the following sites: Landfills #6, #7, #9, #21, #22, #23, #24, #26, Chemical Storage Area 4, Hazardous Waste Storage Area 1, Harmon Substation, Fire Training Area #2, Waste Pile #4, and Drum Storage Area 1.

### Operable Unit #5

Draft RI/FS Workplan  
Draft CRP  
Draft QAPP  
Draft SAP  
Draft RI Report  
Draft FS Report  
Draft Proposed Plan  
Draft Record of Decision

OU #5 consists of the soils and disposed waste material at the following sites: Landfills #8, #10 (including #11 and #12), #13, #14, #15 (including #16), #17 (including Pati Point Dump), #18, #19, #20, Fire Training Area #1, PCB Storage Area, Chemical Storage Area 1, Drum Storage Area 2, and Ritidian Point Dump Site.



Operable Unit #6

Draft RI/FS Workplan  
Draft CRP  
Draft QAPP  
Draft SAP  
Draft RI Report  
Draft FS Report  
Draft Proposed Plan  
Draft Record of Decision

OU #6 is designated as the site-wide OU. Included within this OU are solid waste management units (SWMUs), listed below which will be evaluated in an Expanded Source Investigation (ESI) using RCRA Facility Assessment (RFA) guidance. If any SWMU is found to meet the RFA criteria for further investigation then those SMWUs will be investigated in the RI/FS for this OU. The RI Report will include a site-wide risk assessment integrating this OU's risks with all other OU risks. All sites not included in previous OU's will be addressed in OU #6.

Harmon Annex Pesticide Spill

Sanitary Sewer System

Waste oil storage tanks

Outside aircraft washrack oil/water separator

Outside aircraft washrack oil skimming tank

Bldg 18027 drum storage area

Bldg 18017 Inside washrack oil/water separator

Bldg 18004 Drum storage area, east oil/water separator, west oil/water separator

Bldg 18006 Drum storage area

Bldg 17006 Drum storage area

Bldg 20021 Drum storage area

Bldg 18040/42 Drum storage area

Bldg 2600 Drum storage area, oil/water separator, leach field

Bldg 23003 Oil/water separator

Bldg 2550/52 Oil/water separator

Bldg 26229 Oil/water separator, waste fuel storage tanks, waste oil storage tanks

Bldg 26051 Oil/water separator

Bldg 14507 Drum storage area

Bldg 2618 Abandoned above ground storage tank

Bldg 26101 Service station

Bldg 26000/01 USAF clinic, photo lab

Bldg 18017 Aircraft corrosion control

Bldg 18004 Nonpowered AGE, jet engine support, jet engine intermediate maintenance, engine conditioning, fuels systems maintenance, repair and replace

Bldg 17006 Nondestruct inspection lab

Bldg 17000 Defensive fire control

Bldg 19020 Propulsion, jet

Bldg 18040/42 Corrosion control

Bldg 2600 Equipment maintenance

Bldg 2799 Industrial corrosion control

Bldg 23022 Aerospace ground equipment



Bldg 26229 Refueling maintenance  
Bldg 26051 Auto hobby  
Bldg 26203 Fuels lab  
Bldg 26224 Lox facility  
Bldg 18002 Bomb renovation, paint, and refrigeration  
Bldg 9002 Packing and crating  
Bldg 9004 Line delivery and Handling  
Bldg 25018 Reproduction  
Bldg 18029 Corrosion Control  
Bldg 20021 Roads and grounds  
Bldg 17002 Fire protection branch  
Bldg 18001 Liquid fuels maintenance, oil/water separator,  
vehicle maintenance, battery  
Bldg 14526 Dumpster washrack  
Bldg 18020 Hanger oil/water separator  
Bldg 19013 Aircraft washrack oil/water separator  
Bldg 26204 POL washrack  
Northwest field power plant  
Power production section  
Dry Wells (Stormwater Drainage System Zone 1, 2, and 3)  
Barrigada Communication Station  
Tumon Tank Farm  
Potts Junction Tank Farm  
Anderson 1 and 2 Tank Farm  
JP-4 Pipeline (releases from the pipeline under Air Force  
jurisdiction)  
Det 5 drain field



## APPENDIX B

### Topics to be addressed in the Remedial Investigation/Feasibility Study and related reports

The following are list of topics to be included at a minimum in the RI/FS Documents in Section 7.3(a)(1)-(5) and 7.4(a)(3), as set forth in the most recent version of the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Directive 9355.3-01, Interim Final, October, 1988) and applicable Territorial law. The documents shall also include additional topics and tasks, as appropriate, as set forth in the guidance.

#### Remedial Investigation and Feasibility Study Work Plan

- 1.0 Executive Summary
- 2.0 Introduction/Installation Description
- 3.0 Conceptual Site Model (Evaluation of existing data)
  - 3.1 Regional Andersen AFB Setting
    - Meteorology
    - Topography (significant features that would affect surface water migration)
    - Geology (include description of confining layers)
    - Hydrogeology (include description of preferred migration pathways)
    - Potential Exposure Points or Receptors (Preliminary Human Health and Environmental Impacts)
    - Potential Expedited Response Actions
  - 3.2 Andersen Air Force Base Setting
    - Meteorology
    - Topography
    - Geology
    - Hydrogeology
    - Areas of Concern
    - Types and Volumes of Wastes Present (Suspected Sources)
    - Potential Exposure Points/Receptors
    - Potential Expedited Response Actions
    - Preliminary Identification of Operable Units or Study Zones
    - Preliminary Identification of Remedial Action Objectives/Remedial Action Alternatives
  - 3.3 Andersen AFB Remedial Investigation Objectives (Data Gaps) for each Operable Unit or Study Zone
    - Data Quality Objectives (Stage 1 and Stage 2)
    - Site Characterization
    - Baseline Risk Assessment
    - Description of Sampling Strategy (Stage 3)
  - 3.4 Andersen AFB Feasibility Study Objectives (Data Gaps) for each Operable Unit or Study Zone
    - Treatability Study Needs
    - Applicable or Relevant and Appropriate



## Requirements (ARARs)

- 3.3 Work Plan Rationale (Site Management Strategy)
  - Description of phased approach
  - Criteria for obtaining additional data
  - Data Management
  - Redefining Operable Units
- 4.0 RI/FS Tasks
  - 4.1 As mentioned in the RI/FS guidance
    - To include revisions to Community Relations Plan
  - 4.2 Modification of Work Plan
  - 4.3 Agency Coordination/Notification
    - ATSDR
    - Natural Resource Trustees
    - Others
  - 5.0 Costs and Key Assumptions
  - 6.0 Schedule (including Operable Units)
  - 7.0 Project Management

## QUALITY ASSURANCE PROJECT PLAN

### Title Page

### Table of Contents

1. Project Description
2. Project Organization and Responsibilities
3. QA Objectives for Measurement of Data
4. Sampling Procedures
5. Sample Custody
6. Calibration Procedures
7. Analytical Procedures
8. Data Reduction, Validation and Reporting
9. Internal Quality Control
10. Performance and Systems Audits
11. Preventative Maintenance
12. Data Assessment Procedures
13. Corrective Action
14. Quality Assurance Reports
15. Nonconformance and Corrective Action Procedures

## FIELD SAMPLING PLANS

1. Site Background
2. Sampling Objectives
3. Sample Location and Frequency
4. Sample Designation
5. Sampling Equipment and Procedures
6. Sample Handling and Analysis

## COMMUNITY RELATIONS PLAN

1. Overview and Objectives of Community Relations Plan
2. Capsule Site Description



3. Community Background
4. Public Meetings and Press Releases
5. Highlights of Program
6. Techniques and Timing Appendices
7. Contents of Administrative Record
8. Technical Review Committee

## RI REPORT

### Executive Summary

1. Introduction
  - 1.1 Purpose of Report
  - 1.2 Site Background
    - 1.2.1 Site Description
    - 1.2.2 Site History
    - 1.2.3 Previous Investigations
  - 1.3 Report Organization
2. Study Area Investigation
  - 2.1 Includes field activities associated with site characterization. These may include physical and chemical monitoring of some, but not necessarily all, of the following:
    - 2.1.2 Surface Features (topographic mapping, etc.) (natural and manmade features)
    - 2.1.3 Contaminant Source Investigations
    - 2.1.4 Surface-water and Sediment Investigations
    - 2.1.5 Geologic Investigations
    - 2.1.6 Soil and Vadose Zone Investigations
    - 2.1.7 Ground Water Investigations
    - 2.1.8 Human Population Surveys
    - 2.1.9 Ecological Investigations
  - 2.2 If technical memoranda documenting field activities were prepared, they may be included in an appendix and summarized in this chapter.
3. Physical Characteristics of the Study Area
  - 3.1 Includes results of field activities to determine physical characteristics. These may include some, but not necessarily all, of the following:
    - 3.1.1 Surface Features
    - 3.1.2 Meteorology
    - 3.1.3 Surface Water Hydrology
    - 3.1.4 Geology
    - 3.1.5 Soils
    - 3.1.6 Hydrogeology
    - 3.1.7 Demography and Land Use
    - 3.1.8 Ecology
4. Nature and Extent of Contamination
  - 4.1 Presents the results of site characterization, both natural chemical components and contaminants in the following:
    - 4.1.1 Sources
    - 4.1.2 Soils and Vadose Zone
    - 4.1.3 Ground Water

Appendix B (continued)



- 4.1.4 Surface Water and Sediments
- 4.1.5 Air
- 4.1.6 Biota
- 4.1.7 Fish and Wildlife
- 5. Contaminant Fate and Transport
  - 5.1 Potential Routes of Migration (i.e., air, ground water, etc.)
  - 5.2 Contaminant Persistence
    - 5.2.1 If they are applicable (i.e., for organic contaminants), describe estimated persistence in the study area environment and physical, chemical, and/or biological factors of importance for the media of interest.
  - 5.3 Contaminant Migration
    - 5.3.1 Discuss factors affecting contaminant migration for the media of importance (e.g., sorption onto soils, solubility in water, movement of ground water, etc).
    - 5.3.2 Discuss modeling methods and results, if applicable.
- 6. Baseline Risk Assessment
  - 6.1 Human Health Evaluation
    - 6.1.1 Exposure Assessment
    - 6.1.2 Toxicity Assessment
    - 6.1.3 Risk Characterization
  - 6.2 Environmental Evaluation
    - 6.2.1 Exposure Assessment
    - 6.2.2 Toxicity Assessment
    - 6.2.3 Risk Characterization
- 7. Summary and Conclusions
  - 7.1 Summary
    - 7.1.1 Nature and Extent of Contamination
    - 7.1.2 Fate and Transport
    - 7.1.3 Risk Assessment
  - 7.2 Conclusions
    - 7.2.1 Data Limitations and Recommendations for Further Work
    - 7.2.3 Recommended Remedial Action Objectives

## FS REPORT

### Executive Summary

- 1. Introduction
  - 1.1 Purpose and Organization of Report
  - 1.2 Background Information (Summarized from RI)
    - 1.2.1 Site Description
    - 1.2.2 Site History
    - 1.2.3 Nature and Extent of Contamination
    - 1.2.4 Contaminant Fate and Transport
    - 1.2.5 Baseline Risk Assessment
- Appendix B (continued)
- 2. Identification and Screening of Technologies
  - 2.1 Introduction
  - 2.2 Remedial Action Objectives - Presents the



development of remedial action objectives for each medium of interest (ground water, soil, surface water, air, ecological, etc.). For each medium, the following should be discussed:

- 2.2.1 Contaminants of Interest
  - 2.2.2 Allowable Exposure Based on Risk Assessment (Including ARARs)
  - 2.2.3 Development of Remediation Goals
  - 2.3 General Response Actions - For each medium of interest, describes the estimation of areas or volumes to which treatment, containment, or disposal technologies may be applied.
  - 2.4 Identification and Screening of Technology Types and Process Options - For each medium of interest, describes:
    - 2.4.1 Identification and Screening of Technologies
    - 2.4.2 Evaluation of Technologies and Selection of Representative Technologies
  - 3. Development and Screening of Alternatives
    - 3.1 Development of Alternatives - Describes rationale for combination of technologies/media into alternatives. Note: This discussion may be by medium or for the site as a whole.
    - 3.2 Screening of Alternatives (if conducted)
      - 3.2.1 Introduction
      - 3.2.2 Alternative 1
        - 3.2.2.1 Description
        - 3.2.2.2 Evaluation of:
          - Effectiveness
          - Implementability
          - Cost
      - 3.2.3 Alternative 2
        - 3.2.3.1 Description
        - 3.2.3.2 Evaluation
      - 3.2.4 Alternative 3
  - 4. Detailed Analysis of Alternatives
    - 4.1 Introduction
    - 4.2 Individual Analysis of Alternatives
      - 4.2.1 Alternative 1
        - 4.2.1.1 Description
        - 4.2.1.2 Assessment of:
          - Overall Protection
          - Compliance with ARARs
          - Long-term Effectiveness and Permanence
          - Reduction of Toxicity, Mobility or Volume
- Appendix B (continued)
- Through Treatment
    - Short-Term Effectiveness
    - Implementability
    - Cost
    - State Acceptance



	- Community Acceptance
4.2.2	Alternative 2
4.2.2.1	Description
4.2.2.2	Assessment
4.2.3	Alternative 3
4.3	Comparative Analysis
	Bibliography
	Appendices

## TREATABILITY INVESTIGATIONS

The need for treatability testing should be identified as early in the RI/FS process as possible. The purpose is to provide information needed for the detailed analysis of alternatives and to allow selection of a remedial action with a reasonable certainty of achieving the response actions. In general, treatability testing will include the following:

1. A work plan for Bench or Pilot Scale - see Chapter 5 of the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (October, 1988), for example work plan outlines
2. Performing field sampling, and or bench testing or pilot testing
3. Evaluating data from field studies and or bench or pilot testing
4. Preparing a brief report documenting the results of the testing



## APPENDIX C

### PRIMARY AND SECONDARY DOCUMENTS

Primary Documents: The Air Force shall complete and transmit drafts of primary documents for each operable unit and for the final remedy to EPA and Guam EPA, for review and comment in accordance with the provisions of Section 7 of this Agreement. All primary documents will be produced consistent with the National Contingency Plan and appropriate EPA guidance.

The following documents have already been submitted:

- (a). cost analysis for RCRA cover
  - (b). RCRA Cover Design
  - (c). Dye Tracer SAP
  - (d). Borehole Location Proposal
- which will be incorporated by reference.



#### APPENDIX D

All deadlines which will be established in accordance with section 8 (Deadlines) and which may be extended in accordance with section 9 (Extensions).

(To be incorporated by reference)



## ATTACHMENT A

### STATEMENT OF FACTS

For the purposes of this Agreement, the following constitutes a summary of the facts upon which this Agreement is based. None of the facts related herein shall be considered admissions by any party, nor shall they be used by any persons for purposes unrelated to this Agreement.

Andersen AFB, located at the northern end of Guam, is 8 miles long and varies in width from 2 to 4 miles. The Base has been in operation since the close of World War II, and was used extensively during the Korean and Vietnam Wars. The Base consists of two major areas: the North Field, at the north-eastern end of the island, which contains the Base's active operations; and the Northwest Field, northwest of the main Base, which contains unused runways and landing fields. Numerous Base annexes are located throughout the northern half of the island. Andersen South (the Marbo Annex) and the Harmon Annex are the largest of these annexes.

Groundwater from the northern region of Guam is the primary source of drinking water for the island's population of 120,000. The aquifer from which this water derives has been designated as a sole source aquifer under the Safe Drinking Water Act (43 FR 17868, April 26, 1978). Four groundwater subbasins underneath Andersen AFB supply 55% of the island drinking water. The drinking water well nearest to the site is in a group of military wells in the Marbo Annex. It is a part of a blended system that serves 4,500 military and civilian personnel. There are also other wells within 3 miles of most of the Andersen AFB sites that are part of a blended system that provides drinking water for the remaining island population of over 100,000.

There has been a release to groundwater at several sites throughout the base. The nearest Air Force drinking water well is located 1,700 feet from the contaminated well and 3,300 feet from a well apparently contaminated by Waste Pile 7.

Two military wells presently used for drinking water on-base have been contaminated with low levels of Trichloroethylene, Trichloroethane, Trichlorofluoromethane, copper, selenium, silver, and cyanide. Contaminant concentrations, with the exception of TCE, are below the Federal maximum contaminant levels.

Areas of potential contamination identified at Andersen AFB are:

Operable Unit 1, Landfills 1, 2, 4, 5 and Waste Piles 1, 2, and 3.



Landfill 1 is about 20 acres in size and has been in operation since 1944. Common debris disposed of includes sanitary trash, waste petroleum, oil and lubricants (POL), unknown types of waste chemicals, pesticides, ferrous metal debris, unidentified wasted solvents, and construction debris.

Landfill 2 (includes Landfill 4 and 5) is located adjacent to and immediately southeast of Landfill 1. It is approximately 40 acres in size and was in operation from 1947 to 1974. Fill material consisted of sanitary trash, waste POL, waste solvents, waste chemicals, unexploded ordinances (UXO), pesticides, ferrous metal debris and construction debris. Landfill 4 is located in the southeast corner of Landfill 2 and Landfill 5 is located in the northeast corner of Landfill 2.

Waste Pile 1 is located approximately 400 feet south of Landfill 1 and to the west of Landfill 2. The area extent is approximately 126,000 square feet, and contains several thousand metal drums of paving asphalt. Most drums are deteriorated and leaking, with small pools of black tar forming at their bases. In some areas, these pools are of sufficient size to entrap small animals. Waste Pile 1 had been designated as drum disposal area 1.

Waste Pile 2 is about 20,000 square feet in size and is located on the northeastern edge of Landfill 1. The site contains about 200 deteriorated drums of asphaltic tar.

Waste Pile 3 comprises approximately 8 acres of a large abandoned quarry pit located southeast of Landfill 1 and Landfill 2. The site was an active waste pile from 1947 to 1977. It was used for the disposal of industrial wastes, construction debris, sanitary trash and scrap metals.

Operable Unit 2 consist of groundwater within the following four groundwater subbasins: Andersen, Agafa Gumas, Finegayan and Yigo.

There have been several documented releases of contaminants to groundwater throughout Andersen AFB. The highest levels of contamination have been detected in four wells in the Yigo subbasin, five wells in the Andersen subbasin, seven wells in the Agafa Gumas subbasin and two wells in the Finegayan subbasin.

Operable Unit 3 is comprised of the following sites:

Waste Pile 5 is located on the Marbo Annex and was operated as both area and trench fill. Waste Pile 5 is about 2 acres in size and received construction debris and scrap metal.

Waste Pile 6 is located on the Marbo Annex and was operated as an area fill. Waste Pile 6 is about 5 acres in size and received construction debris.



Waste Pile 7 is located at the Marbo annex on Turner Street across from Building 1123. The site is about 12 acres in size and was operated between 1945 and 1962. The site was located in close proximity to a motor pool, hospital, and a dry cleaner. These operations generated much of the sanitary trash, waste POL, solvents, scrap vehicles and equipment, construction debris, and waste dry cleaning fluids disposed of here in the 1940's and 1950's.

Landfill 29 is located about 1,700 feet southwest of Landfill 28 and 2,800 feet south of Marine Drive in an abandoned borrow pit.

War Dog Area is an abandoned borrow pit located north of Route 1 near the War Dog Cemetery. The pit is approximately 50 feet deep and covers approximately 240,000 square feet and heavily overgrown by jungle.

Marbo Laundry Facility is presently used as the base furniture warehouse. It is approximately one-half mile northeast of Waste Pile 7.

Operable Unit 4 consists of the soils and disposed waste at the following sites:

Landfill 6 is located immediately north of the Andersen AFB main gate on Marine Drive. It is approximately 2 acres in size and was operated between 1953 and 1954. Fill material consisted of sanitary trash from the base.

Landfill 7 is approximately 3 acres in size. It is located in the housing area on Wake Lane, Guadalcanal Lane and Kwajalein Lane. The operation used a trench-fill method for disposal of base sanitary trash between 1956 and 1958.

Landfill 9 is located approximately 1,400 feet southwest of the intersection of Guam Route 9 and B Avenue on the north side of Route 9 (near Potts Junction). The landfill is approximately 8 acres in size and was operated between 1949 and 1955. Fill material consisted of sanitary trash and construction debris.

Landfill 21 is located in the Northwest Field, about 1,000 feet east of the intersection of Guam Route 3 and M street. The site is an abandoned borrow pit approximately one acre in size and was operated between the mid-1950s and 1963.

Landfill 22 is located in an abandoned borrow pit in the Northeast Field between the north and south runways. The site is less than one acre in size and was operated from the mid-1950s to the early 1960s as a landfill for sanitary trash and unknown quantities of unexploded ordinance and black powder. The site is now closed and covered with soil.

Landfill 23 is located in the Harmon Annex about 2,600 feet north



of Harmon Village. The site is less than one acre in size and was operated in the late 1950s to disposed of sanitary trash. The area is currently closed and covered with soil.

Landfill 24 is located in Harmon Annex north of the Beach Street and 10th Street intersection, near Harmon Village. This landfill was used to dispose of sanitary trash by the trench method in the 1950s. The site consists of three distinct areas separated by local streets and has a total area of about eight acres.

Landfill 26 is located ,south of the South Runway on Northwest Field. The site is approximately two acres in size and began operation in 1966. Sanitary trash and construction debris were disposed of in trenches at this site. The site is now closed with soil covering.

Chemical Storage Area 4 is located in the Northwest Field, operated between 1952 and 1956 and is approximately one mile north of the intersection of Guam Route 3 and Route 9 at Potts Junction. The site is located directly north of the abandoned borrow pit and approximately 2,000 feet south of Landfill 21.

Hazardous Waste Storage Area 1 consists of a concrete pad at the southwestern corner of the intersection of Marine Drive and Marianas Boulevard. The pad was used as an outside storage area for POL and solvents from 1950 until late 1970s, and hazardous wastes were stored there from the late 1970s to late 1983.

Harmon Substation is located immediately behind the Guam Power Authority's Harmon Substation, approximately .2 miles from Guam Route 1. Electrical debris was uncovered during an excavation project.

Fire Training Area 2 was used for training firefighters and was operated from 1958 until December 1988. Fire Training Area 2 site consists of a mock plane enclosed in an unlined bermed area, and a smokehouse. Runoff from Fire Training Area 2 is directed to an oil/water separator located on site. Fuel from past training exercises has consisted of contaminated Jet Propulsion Fuel (unleaded) No.4 (JP-4), diesel fuel, motor fuel gas (MOGAS), waste POL, and solvents. Until 1988, fuel for training exercises consisted of JP-4 that was stored in a 2,000 gallon aboveground tank.

Waste Pile 4 is located adjacent to the new explosive ordinance (EOD) incinerator east of Potts Junction and south of the intersection of A and B Avenues, in the Andersen AFB ammunition storage area. Unexploded ordinance was disposed of here, both buried and on the surface. Waste was disposed of at Waste Pile 4 from 1950 to 1970.

Drum Storage Area 1, also known as the "waste transfer station" is located adjacent to Building 14525, on the road leading to Landfill 1. Over 30 drums which contain POL products and



solvents are present at the site.

#### Operable Unit 5

Landfill 8 is about 14 acres in size and is located near the EOD building. Landfill 8 was operated between 1946 and 1949 as a trench and fill operation for burial of asphaltic waste material and waste liquids.

Landfill 10 (includes Landfill 11 and 12) operated between 1953 and 1954 and received asphaltic wastes, sanitary trash, scrap metal, and drums. It is situated in a sink hole or borrow pit which is located along the cliff line, immediately northeast of Drum Storage 2.

Landfill 13 is about 2 acres in size and is located approximately 1,200 feet northeast of Landfill 11, at the base of the cliff near the eastern end of the south runway.

Landfill 14 is located on the eastern end of Perimeter Road, approximately 1,000 feet north of Landfill 10. The site is about one acre in size and was used for disposal in 1976. Fill materials consisted of concrete debris and other solid construction debris placed in a shallow excavated area.

Landfill 15 (includes Landfill 16) operated during the early 1960's and received sanitary trash, construction debris, and possible solvent burial and dumping during the 1970's. Landfill 16 is located in the northeast portion of the base, north of the north runway, approximately 100 feet southwest of Landfill 15.

Landfill 17 (includes Pati Point Dump) is located about 1,000 feet north of Landfill 15 and about 1,000 feet east of the EOD range. The site is approximately 2.5 acres in size and was used between 1945 and 1949 for disposal of sanitary trash and excess equipment such as trucks and airplane parts. Disposal practices consisted of dumping this material off the steep-walled cliff to the lower terraces.

Landfill 18 covers less than an acre at the foot of the cliff, about 1,500 feet north of Landfill 8. The site was used for disposal of asphaltic materials generated at an asphalt plant located at the Munitions Maintenance Squadron (MMS) Building from 1967 to 1968. Empty drums of asphalt and waste liquids similar to those disposed of at Landfill 8 are believed to have been dumped over the cliff.

Landfill 19 is located at the foot of the cliff, approximately 2,500 feet east of Building 25016 and 2,000 feet south of Landfill 12. The site consists of two small disposal areas with combined size of about one acre. The area was used for disposal of approximately 50 to 70 drums of asphalt from housing construction in 1955.



Landfill 20 is located about 2,500 feet south of Landfill 19 and approximately 1,500 feet east of the 7th fairway on the Andersen AFB golf course. The site is about one acre in size and was operated in 1968 as a landfill for sanitary trash from the base and housing operations.

Fire Training Area 1 is located directly north of the north runway overrun and was used for training between 1945 and 1958. Approximately 200 gallons of waste and contaminated fuels were consumed per training exercise with a training frequency of 1 to 2 per month. The training area was operated in an unlined area of exposed limestone.

PCB Storage Area is located on the Perimeter Road northwest of sites Drum Storage 2 and Landfill 10, was an electrical equipment storage pad that in the past had polychlorinated biphenyl (PCB) filled transformers in storage.

Chemical Storage 1 was operated during the early 1970's for disposal of waste POL and chlorinated solvents produced at shops on the eastern end of the north and south runways. Unknown quantities of wastes were dumped in the area below the cliff.

Drum Storage Area 2 is located immediately south and east of the Roads and Grounds Shop (Building 20021) on Andersen AFB. Drums of asphalt, oil, and tar are stored in several locations at this site.

Waste Pile Ritidian is located off Guam Route 3 in Northwest Field, approximately 1,000 feet south of the turn-off to the Naval Communications complex at Ritidian Point. Waste consists of deteriorated drums, trash and metal debris.

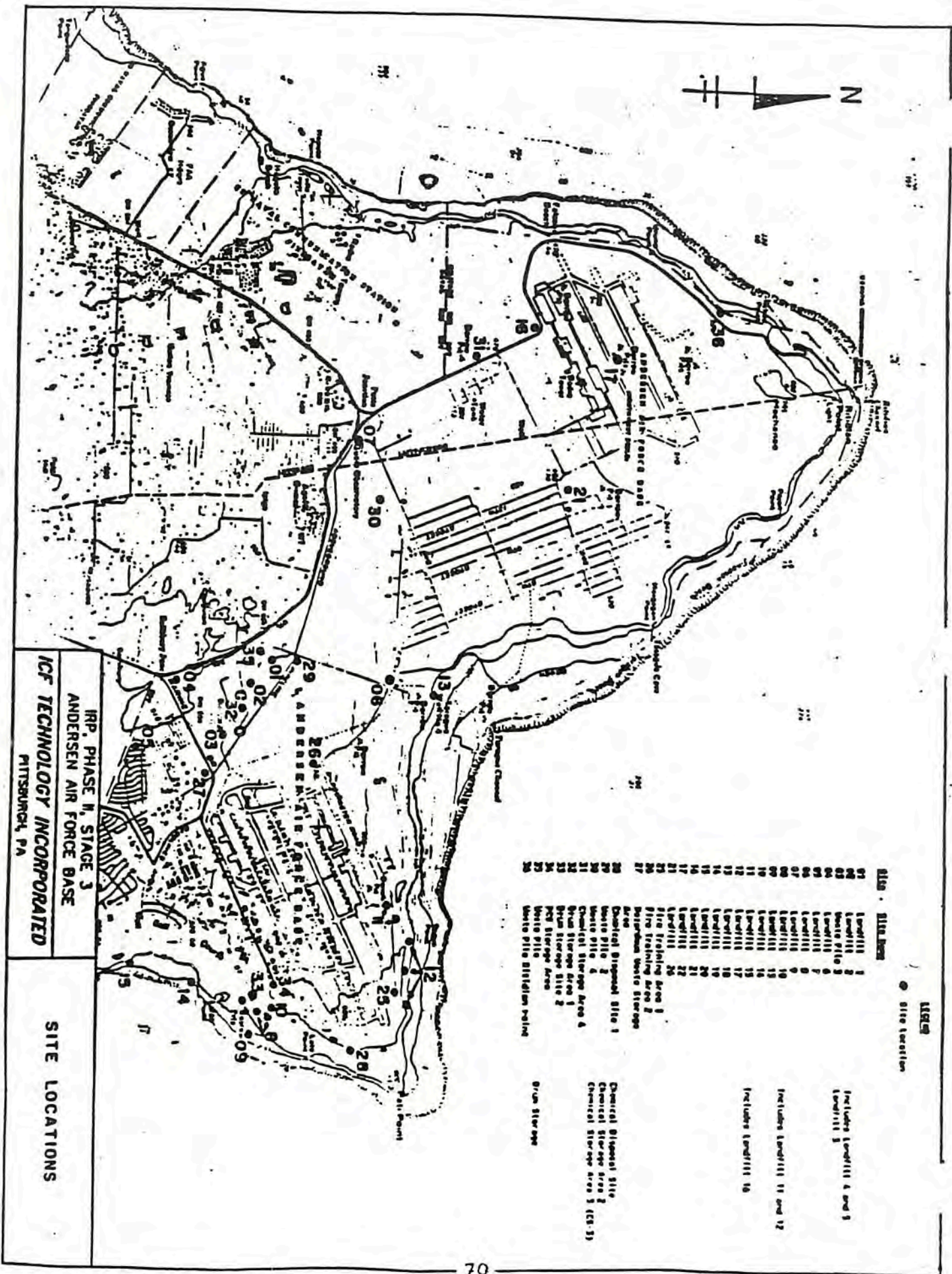
Andersen Air Force Base was proposed for placement on the National Priorities List on February 7, 1992, Federal Register, page 4824.



ATTACHMENT B

SITE MAPS





LEGEND

● Site location

Site - Site Name

- 01 Landfill 1
- 02 Landfill 2
- 03 Waste pile 1
- 04 Landfill 3
- 05 Landfill 4
- 06 Landfill 5
- 07 Landfill 6
- 08 Landfill 7
- 09 Landfill 8
- 10 Landfill 9
- 11 Landfill 10
- 12 Landfill 11
- 13 Landfill 12
- 14 Landfill 13
- 15 Landfill 14
- 16 Landfill 15
- 17 Landfill 16
- 18 Landfill 17
- 19 Landfill 18
- 20 Landfill 19
- 21 Landfill 20
- 22 Landfill 21
- 23 Landfill 22
- 24 Site Training Area 1
- 25 Site Training Area 2
- 26 Site Training Area 3
- 27 Site Training Area 4
- 28 Site Training Area 5
- 29 Site Training Area 6
- 30 Site Training Area 7
- 31 Site Training Area 8
- 32 Site Training Area 9
- 33 Site Training Area 10
- 34 Site Training Area 11
- 35 Site Training Area 12
- 36 Site Training Area 13
- 37 Site Training Area 14
- 38 Site Training Area 15
- 39 Site Training Area 16
- 40 Site Training Area 17
- 41 Site Training Area 18
- 42 Site Training Area 19
- 43 Site Training Area 20
- 44 Site Training Area 21
- 45 Site Training Area 22
- 46 Site Training Area 23
- 47 Site Training Area 24
- 48 Site Training Area 25
- 49 Site Training Area 26
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- 53 Site Training Area 30
- 54 Site Training Area 31
- 55 Site Training Area 32
- 56 Site Training Area 33
- 57 Site Training Area 34
- 58 Site Training Area 35
- 59 Site Training Area 36
- 60 Site Training Area 37
- 61 Site Training Area 38
- 62 Site Training Area 39
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- 64 Site Training Area 41
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- 67 Site Training Area 44
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- 71 Site Training Area 48
- 72 Site Training Area 49
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- 74 Site Training Area 51
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- 83 Site Training Area 60
- 84 Site Training Area 61
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- 87 Site Training Area 64
- 88 Site Training Area 65
- 89 Site Training Area 66
- 90 Site Training Area 67
- 91 Site Training Area 68
- 92 Site Training Area 69
- 93 Site Training Area 70
- 94 Site Training Area 71
- 95 Site Training Area 72
- 96 Site Training Area 73
- 97 Site Training Area 74
- 98 Site Training Area 75
- 99 Site Training Area 76
- 100 Site Training Area 77

Includes Landfills 4 and 5  
Landfill 3

Includes Landfills 11 and 12

Includes Landfill 16

Chemical Disposal Site  
Chemical Storage Area 2  
Chemical Storage Area 3 (CS-3)

On-Site Storage

IRP, PHASE II, STAGE 3  
ANDERSEN AIR FORCE BASE  
ICF TECHNOLOGY INCORPORATED  
PITTSBURGH, PA

SITE LOCATIONS







## ATTACHMENT C

### CHEMICALS OF CONCERN

Based on historical operations and previous sampling, the following chemicals of concern may or may not be present in the environment at the Site in excess of recognized regulatory standards. The descriptions of toxicity of the chemicals at the Site is for reference only and should not be interpreted as describing absolute effects on any individual person. The list includes but may not encompass all chemicals of concern known at the time of this agreement. As the remedial investigation continues, the list may change.



# CHEMICALS OF CONCERN

Chemical Compound	CAS No.
ORGANICS	
Acetone	67-64-1
Acrolein Acrylonitrile	75-05-08
Benzene	71-43-2
Bis (2-chloroethyl) ether	111-44-4
Bis (2-ethylhexyl) phthalata (BEHP)	117-81-7
o-Bromobenzyl cyanide	5798-79-8
Bromodichloromethane	75-27-4
Bromomethane	75-25-2
Carbon Disulfide	75-15-0
Carbon tetrachloride (Freon 10; Halon 104; Tetrachloromethane)	56-23-5
2-Chloroacetophenone (2-Chloroacetophenone)	332-27-4
Chlorobenzene (Benzene chloride)	108-90-7
O-Chlorobenzylidene malononitrile	2698-41-1
Chloromethane	95-00-3
1-Chloroethene (Vinyl chloride; Chloroethene)	75-01-4
Chloroform	67-66-3
Chloromethane	
4-Chloro-3-methylphenol	59-50-7
Chrysene	218-01-9
Dibromochloromethane	124-48-1
1,2-Dibromo-3-Chloropropane (DDCP)	96-12-8
1,2-Dibromomethane (Ethylene dibromide (EDB))	106-93-04
Dichlorobenzene	
1,1-Dichloro-1,1-difluoromethane (Freon 12; Halon 122)	75-71-8
1,1-Dichloroethane	75-34-03
1,2-Dichloroethane (1,2-DCA; Ethylene dichloride (EDC))	07-06-2
1,1-Dichloroethene (1,1-DCE; 1,1-Dichloroethylene)	75-35-4
1,2-Dichloroethene (1,2-Dichloroethylene)	540-59-0
Mixture of isomers:	
trans-1,2-Dichloroethane	156-60-5
cis-1,2-Dichloroethane	156-59-2
1,2-Dichloropropane	78-87-5
Bis-1,3-Dichloropropane	10061-01-5
Trans-1,3-Dichloropropane	10061-02-6
Trans-1,2-Dichloroethane	156-60-5
Diethyl phthalate	84-66-2
Dimethyl methyl phosphonate (DMMP)	756-79-6



2,4-Dimethyl-6-tertiary butyl phenol		none noted
Di-n-Butyl phthalate (DBP)		84-74-2
2,4-dinitrotoluene		121-14-2
2,6-Dinitrotoluene		606-20-2
Di-n-cetyl phthalate		117-84-0
Ethylbenzene		100-41-04
Ethyl iodoacetate		523-48-3
Ethylene glycol		107-21-1
Fluoranthene		206-44-0
Fluorane		86-73-7
Hexachloroethane		67-72-1
Methylene Chloride	(1,1-dichloro-methane)	75-09-2
Methyl ethyl ketone	(2-butanone; (MEK))	78-93-3
2-Methylnaphthalene		91-57-6
Naphthalene		91-20-3
Phenanthrene		85-01-8
Phenol		108-95-5
Polyalkylene glycols and di esters		none noted
Polychlorinated dibenzo-	(PCDD Dioxins)	none noted
Polychlorinated di-benzo-	(PCDF Dioxins)	none noted
Polychlorinated glycol	water sol. lube.	25322-68-3
Plastics Manu.		100-42-5
2,3,7,8-Tetrachlorodibenzofuran		51207-31-9
2,3,7,8-Tetrachlorodibenzo-p-dioxin	Agent Orange	1746-01-6
1,1,2,2-Tetrachloroethane		79-34-5
1,1,2,2-Tetrachloroethene	(Tetrachloroethylene; Perchloroethylene (PCE))	127-18-4
Tetraethyl lead	(organic lead)	78-00-2
Tetramethyl lead	(organic lead)	75-74-1
Toluene	(Methyl benzene)	108-88-3
Total fuel hydrocarbons		none noted
Total petroleum hydrocarbons		none noted
1,1,1-Trichloroethane	(TCA; Chloroethene; Methyl Chloroform)	71-55-6
1,1,2-Trichloroethane	(Vinyl trichloride; beta-Trichloroethylene)	79-00-5
1,1,2-Trichlorofluoroethene	(Trichloroethylene; (TCE))	79-01-6
Trichlorofluoromethane		75-69-4
Trichlorofluoroethane		75-69-04
1,2,3-Trichloropropane		96-18-4
Triethyl phosphate	Insecticides, TEP	78-40-0
Trioctyl phosphate		none noted
Tritolyl phosphate	gasoline, lube.	1330-78-5
Tris (2-ethylhexyl) phosphate		none noted
Urethane solvent	(Ethyl Carbinol)	51-79-6
Vinyl Acetate		108-05-4
Xylenes (Total)		1330-20-7
1,2-Dimethyl benzene	O-benzene	95-47-6



1,3-Dimethyl benzene	m-bemzene	108-38-3
1,4-Dimethyl benzene	p-benzene	106-43-3
Xylyl bromide		28258-59-5

# PESTICIDES/HERBICIDES/PCBs

Aldrin		309-00-2
alpha-BHC		319-84-6
beta-BHC		319-85-7
delta-BHC		319-96-8
gamma-BHC, ...		58-89-0
Chlordane		57-74-7
2,4-Dichlorophenoxy		
acetic acid	(2,4-D)	94-78-7
Diieldrin		60-57-1
Disulfoton		298-04-4
Endosulfan I		959-98-8
Endosulfan II		33213-65-9
Endosulfan sulfate		1031-07-8
Endrin		72-20-8
Endrin aldehyde		7421-93-4
Ethylidibromide		
Heptachlor		76-44-8
Heptachlor epoxide		1024-57-3
Lindane		
Methoxychlor		72-43-5
Methyl parathion		296-00-0
Parathion		86-38-2
Polychlorinated biphenyls	(PCBs)	1336-36-3
Aroclor-1016		12674-11-2
Aroclor-1221		11104-28-2
Aroclor-1232		11141-16-8
Aroclor-1242		53469-21-9
Aroclor-1248		12672-29-6
Aroclor-1254		11097-69-1
Aroclor-1260		11096-82-5
1,1,1-Trichloro-2,2-bis-	4,4'-DDT	50-29-3
4-chlorophenylethane	p,p'-DDT	
and isomers, metabolites:		
1,1,1-Trichloro-2-	2,4'-DDT	789-02-6
2-chlorophenyl-2-	p,p'-DDT	
4'-chlorophenylethane		
1,1-Dichloro-2,-		
2-bis	4,4'-DDD	72-54-8
2-chlorophenyl-		
ethane	p,p'-DDD	
1,1-Dichloro-2,2-	2,4'-DDD	53-19-0
2-chlorophenyl-24'-	o,p'-DDD	
chlorophenylethane		
1,1-Dichloro-2,2		
bis	4,4'-DDE	72-55-9
4-chlorophenyl		
ethene	p,p'-DDE	



1,1-Dichloro-2,2,2-	2,4'-DDE	none noted
chlorophenyl-2-4'-	o,p'-DDE	
Chlorophenyl ethene		
Simayive		
2,4,5-Trichlorophenoxy	2,4,5-T	93-76-5
acetic acid		
2,4,5-Trichlorophenoxy	(2,4,5-tp;	93-72-1
propionic acid	silvex)	
Toxaphene		8001-35-2

# METALS/INORGANICS

Aluminum	7429-90-5
Antimony	7440-36-0
Arsenic	7740-38-12
Asbestos	1332-21-4
Barium	7440-39-3
Beryllium	7440-41-7
Cadmium	7440-43-9
Calcium	7440-70-2
Chloride	none noted
Chromium	7440-47-03
Cobalt	7440-48-4
Copper	7440-50-8
Iron	7439-89-6
Lead	7439-92-01
Magnesium	7439-95-4
Managanese	7439-96-5
Mercury	7439-97-6
Molybdenum	7439-98-7
Nickel	7440-02-0
Nitrate	none noted
Phosphate	none noted
Potassium	7440-09-7
Potassium Hydroxide	1310-58-3
Radium-226	7440-14-4
Selenium	7782-49-2
Silver	7440-22-04
Sodium	7440-23-5
Sodium Hydroxide	1310-73-2
Sulfate	none noted
Sulfuric Acid	7664-93-9
Thallium	7440-28-0
Vanadium	7440-62-2
Zinc	7440-66-6



Chemical Compounds	CAS NO.
SEMIVOLATILE ORGANIC COMPOUNDS (EPA-8270) - (mg/kg)	
1,2,4,5-Tetrachlorobenzene	95-94-3
1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,2-Diphenylhydrazine	
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
1-Chloronaphthalene	
2,3,4,6-Tetrachlorophenol	58-90-2
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4-Dichlorophenol	120-82-2
4-Dimethylphenol	105-67-9
4-Dinitrophenol	51-28-5
6-Dichlorophenol	87-65-0
1-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
4-Ethyl Phenol	
4-Ethyl-4,6-dinitrophenol	
1-Naphthylphenol	91-57-6
2-Naphthylphenol	88-75-5
1,2-Dichlorobenzidine	94-91-1
1-Naphthylanthrene	
o-Aniline	99-09-2
o-Phenylphenylether	101-55-3
o-3-methylphenol	
o-Aniline	106-47-8
o-Phenylphenylether	7005-72-3
1-Phenol	
o-Aniline	100-01-6
o-Phenol	100-02-7
4-Ethylbenz(a)-anthracene	57-97-6
1-Naphthylbenzene	83-32-9
1-Naphthylene	208-96-8
1-Naphthylone	98-86-2
	62-53-3
	120-12-7
1-Naphthylanthracene	56-55-3
1-Naphthylene	50-82-8
1-Naphthylanthracene	205-99-2
1-Naphthylperylene	191-24-2
1-Naphthylanthracene	207-08-9
1-Naphthylpropyl ether	
1-Naphthylmethoxy methane	111-91-1
1-Naphthyl-2-chloroethyl Ether	111-44-4
Butylbenzylphthalate	85-68-7
Chrysene	218-01-9



Di-n-octylphthalate	117-84-0
Dibenz(a,j)acridine	
Dibenzo(a,h)anthracene	53-70-3
Dibenzofuran	132-64-9
Dibutylphthalate	84-74-2
Diethylphthalate	84-66-2
Dimethylphthalate	131-11-3
Diphenylamine	122-39-4
Dibenzofuran	132-64-9
Dibenz(a,j)acridine	
Fluorene	86-73-7
Fluoranthene	206-44-0
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Indeno(1,2,3-c,d)Pyrene	193-29-5
Isophorone	78-59-1
N-Nitrosodi-n-propylamine	621-64-7
N-Nitrosodimethylamine	10595-95-6
N-Nitrosodiphenylamine	84-30-6
Nitrobenzene	98-95-3
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Pentachlorobenzene	608-93-5
Phenanthrene	85-01-8
Pyrene	129-00-0



## ATTACHMENT D

### REMOVAL ACTIONS

The Approved Closure Plan (July 16, 1991) for capping LF-5 will be implemented as a removal action. The cover design and cost analysis will constitute the basis of an EE/CA. The schedule provided by the approved closure plan for installing the cap at LF-5 will be followed. The Air Force will use all due diligence to meet the approved schedule. After the cap has been installed Guam EPA will remove two Notices of Violation (NOV) issued to the Air Force on December 14, 1987 and April 7, 1988.



Attachment E  
Underground Tanks (UTs)

A. Procedures for evaluating adverse impacts on CERCLA investigations and response actions.

1. Record search: The Air Force will submit the findings of a record search to EPA and Guam' EPA for all formerly and currently operating UTs known to exist at the effective date of this Agreement. This information will be presented in the Installation Restoration Underground Tank Report ( a technical information report). Similar information will be presented for UTs discovered during the CERCLA process. This information will be transmitted by formal correspondence in accordance with applicable Territorial and Federal law. The following information will be submitted for each UT:

- a. Location of all UTs including their associated piping, in relation to buildings, utility trenches, other facilities and waste management units;
- b. Age and materials of construction of the tanks/piping;
- c. Size and dimensions of the tanks;
- d. Contents of the tanks (past and present use); and
- e. Inventory and release detection method records.

2. Inclusion under the Federal Facility Agreement

a. The Parties will utilize the record search information to determine which UTs will be handled pursuant to this Agreement, as provided in subsection 17.4(d).

B. Investigation and Response action

UTs determined to be subject to the terms of this Agreement under subsection 17.4(d)(1) through (3) shall be investigated and closed through ongoing RI/FS and RD/RA activities. If the UT is determined to be leaking, the tank's contents will be removed, to the extent necessary, to prevent further release. If, as demonstrated by analytical data, it is agreed by a majority of the Parties that contamination from a UT subject to the terms of this Agreement poses a substantial and immediate threat to human health or the environment, remediation or other response actions may be expedited through an appropriate CERCLA removal action option in accordance with Section 11 (Emergencies and Removals).