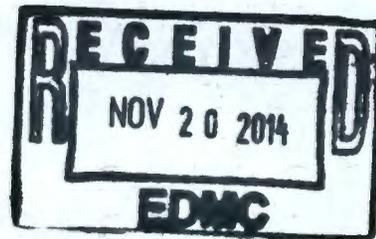


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# Final Determination

**HFFACO Milestone Series M-91,  
Hanford Site Transuranic Wastes  
and Transuranic Mixed Wastes**



17091-00

**March 10, 2003**

March 10, 2003

Ms. Jessie Hill Roberson, Assistant Secretary  
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RE: Final Determination pursuant to the Hanford Federal Facility Agreement and Consent Order (HFFACO) in the matter of HFFACO milestone series M-91, and Hanford site transuranic wastes (TRU) and transuranic mixed wastes (TRUM).

This letter follows expiration of the time allotted for HFFACO dispute negotiations in this matter between the Washington Department of Ecology (Ecology) and the U. S. Department of Energy (DOE). Enclosed, please find Ecology's Final Determination in this matter pursuant to HFFACO Part Two, Article VIII, Paragraph 30 (D).

Sincerely,

[signed 03/10/2003]  
Tom Fitzsimmons  
Director

- c. Wade Ballard, DOE RL
- Gary Burke, CTUIR
- Nick Ceto, EPA Region 10
- Paul Detwiler, DOE HQ
- L. John Iani, EPA Region 10
- Todd Martin, HAB
- David Mears, WA AGO
- Samuel Penney, Nez Perce
- George Sanders, DOE RL
- Joe Shorin, WA AGO
- Ross Sockzehigh, YIN

## FINAL DETERMINATION

### **Final Determination pursuant to the Hanford Federal Facility Agreement and Consent Order (HFFACO) in the matter of HFFACO milestone series M-91, and Hanford site transuranic wastes (TRU) and transuranic mixed wastes (TRUM).**

This determination concludes efforts at negotiating a resolution of dispute under the HFFACO between the Washington Department of Ecology (Ecology), and the U. S. Department of Energy (DOE). As such, this constitutes my Final Determination pursuant to HFFACO Part Two, Article VIII, Paragraph 30 (D). This determination has been made following review and consideration of Ecology's Administrative Record in this matter.

#### **I. Introduction**

The 570 square mile Hanford site is located in south central Washington State. Since the 1940's, it has served as one of the federal government's key facilities in the United States' nuclear weapons complex. In doing so, its activities focused on the irradiation, production, and reprocessing of nuclear fuels in order to extract and purify weapons grade nuclear materials. Hanford's processes were dependent on the use of a wide array of chemicals. Examples of resulting waste streams include highly radioactive and hazardous liquid tank wastes, solid wastes contaminated with long-lived radioisotopes (transuranic or TRU waste), wastes containing both long-lived radioisotopes and non-radioactive hazardous wastes (transuranic mixed waste or TRUM waste), and hazardous wastes containing low-levels of radioactive contamination and non-radioactive hazardous substances (mixed low-level waste or MLLW).

Since the close of the cold war, the Hanford mission has focused on cleanup and achieving compliance with federal and state hazardous waste law. In documenting associated requirements, Ecology, DOE, and the U. S. Environmental Protection Agency (EPA) developed and approved the Hanford Federal Facility Agreement and Consent Order (HFFACO). Issued initially in May of 1989, The HFFACO stands as an Administrative Order issued pursuant to Washington's Hazardous Waste Management Act (Chapter 70.105 RCW), and as an enforceable Federal Facility Cleanup Agreement pursuant to Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The HFFACO serves as the centerpiece document governing Hanford cleanup. Its terms are enforceable and binding on the Parties. Enforceable milestones and associated (non-enforceable) target dates are located at HFFACO Appendix D (Work Schedules).

This Final Determination documents Ecology efforts to establish regulatory requirements governing the acquisition and/or modification of facilities necessary for the sound and timely management of Hanford site waste known or suspected to be TRU/TRUM located within a wide array of Hanford burial sites, as well as such wastes in above ground storage, or contained at Hanford sites and facilities where cleanup has not yet been undertaken or completed. In documenting the conclusion of the parties' HFFACO dispute in this matter, this Final

Determination documents my findings, and establishes regulatory requirements necessary for the timely and appropriate management of these wastes.

## II. Hanford site transuranic wastes (TRU), transuranic mixed wastes (TRUM), and Mixed Low-Level Wastes (MLLW).

The federal Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act<sup>1</sup> defines transuranic waste as "waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste."<sup>2</sup> Such wastes are contaminated with radioisotopes having half lives greater than 20 years, and heavier than Uranium on the Periodic Chart of the Elements, e.g., Plutonium, Americium and Curium. Hanford site transuranic wastes generated over its operational history include items such as discarded equipment, soils, sludges, protective clothing, glassware, and other wastes resulting from DOE's defense activities. DOE's 1987 Hanford site Defense Waste Environmental Impact Statement<sup>3</sup> contains the following description of transuranic wastes:

### "Retrievably Stored and Newly Generated TRU Waste

Since May 1970, solid waste classed as or suspected of being TRU waste has been packaged, labeled, and stored so as to be retrievable for at least 20 years. In 1973, the official level for segregation and storage became 10 nCi [*nanocuries*] TRU/g of waste. Recently, however, the basis for classification as TRU waste was established as 100 nCi TRU/g. Thus, some of the waste now stored with TRU waste may actually be classed as low-level waste (LLW). Waste packages with surface exposure rates of 200 mR/hr [*millirems per hour*] or less are referred to as contact-handled; packages exceeding that value are referred to as remote-handled TRU. Most contact-handled waste is in 55-gal drums, but some is contained in large boxes constructed of steel, fiberglass-reinforced plywood, or concrete.

Some small items of TRU waste also contain high concentrations of fission products and generate dose rates exceeding 200 mR/hr. These require remote handling and have been packaged in 1-gal and 5-gal metal containers and stored in underground caissons.

Newly generated TRU solid waste from PUREX plant [*the Hanford Plutonium Uranium Extraction Plant*] operations and from other locations both on site and off site is included within this class, since its storage and disposal will be similar to that for the waste already retrievably stored.

Five sites covering a total surface area of 25,000 m<sup>2</sup>... have been used for retrievably storing TRU waste. Through the end of FY 1983, about 31,000 metal drums and 521 boxes of varying sizes containing 60,000 Ci [*curies*] of TRU elements (including 330 kg [*kilograms*] of plutonium), in a total volume of 12,900 m<sup>3</sup>, have been stored. The total mass of waste is estimated to be 4,000t. Projected newly generated TRU solid waste is expected to add an additional volume of 12,000m<sup>3</sup> containing 33,000 Ci of TRU waste."

<sup>1</sup> The Waste Isolation Pilot Plant Land Withdrawal Act, (Public Law 102-579) October 1992.

<sup>2</sup> Certain wastes are excluded from this definition, including high-level radioactive wastes, wastes determined by the Secretary of Energy and the Administrator of EPA as not requiring deep geologic disposal, and wastes otherwise approved for disposal by the U. S. Nuclear Regulatory Commission on a case-by-case basis.

<sup>3</sup> DOE/EIS-0113, Final Environmental Impact Statement, Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes, Volume 1 of 5, U. S. Department of Energy, December 1987.

DOE's "Record of Decision" for the Hanford Defense Waste EIS<sup>4</sup> selected its preferred alternative for the management of Hanford site retrievably stored and newly generated transuranic wastes<sup>5</sup>, i.e., "Retrievably stored and newly generated TRU-contaminated solid waste will be retrieved, processed as necessary, and sent to WIPP for disposal."

Hanford's burial grounds were thus recognized as containing contact-handled and remote handled TRU waste. It was also recognized that due to changes in the definition of TRU waste, some burial ground wastes would now classify as Low-Level Waste (LLW).

It has since also been recognized that a portion of these stored TRU and LLW contain non-radioactive hazardous substances, and would designate under Washington's Hazardous Waste Management Act as regulated "mixed waste"<sup>6</sup>. For example, DOE has estimated that approximately 20% of retrieved TRU wastes currently stored at its Central Waste Complex (CWC) would designate as transuranic mixed waste. Similarly, DOE estimates that approximately 20% of retrieved LLW at CWC would also designate as mixed low-level waste (MLLW).

Because TRU and LLW in retrievable storage at Hanford's burial grounds were not characterized for (non-radioactive) hazardous content, the extent to which these containers would designate as "mixed waste" is unknown. Similarly, unless characterized upon retrieval, the classification of individual containers as either TRU, TRUM, LLW, or MLLW will remain unknown. DOE's retrievably stored TRUM and MLLW are in non-compliance with hazardous waste law, e.g., they have not been designated per WAC 173-303-070, and are stored improperly (in a manner that may cause container rupture or failure (WAC173-303-400(3)(a)). DOE's (buried) retrievably stored wastes are within containers that are gradually failing.

### III. Basis for the Regulation of TRUM and MLLW

Washington State regulates Hanford site hazardous and mixed waste facilities pursuant to the Resource Conservation and Recovery Act (RCRA) 42 U.S.C. § 6901 et seq., Washington's Hazardous Waste Management Act (HWMA) Chapter 70.105 RCW, and their implementing requirements. The State, through Ecology, is authorized to implement HWMA requirements in lieu of federal program requirements pursuant to 42 U.S.C. § 6926. As such, Ecology is responsible for assuring that facilities managing hazardous wastes<sup>7</sup> within the state are operated in compliance with federal and state hazardous waste law. EPA retains authority for oversight of the State's hazardous waste program and for elements of RCRA for which the State is not yet authorized.

<sup>4</sup> Disposal of Hanford Defense High-Level, Transuranic, and Tank Wastes, Hanford Site, Richland, Washington: Record of Decision (ROD), U. S. Department of Energy, April 1988.

<sup>5</sup> DOE's ROD also covered Hanford's 618-10 & 11 burial grounds which it noted as "the only pre-1970 buried suspect TRU-contaminated solid waste site outside the [Hanford] central (200 Area) plateau"

<sup>6</sup> Waste containing both radioactive and non-radioactive hazardous waste.

<sup>7</sup> This includes radioactive mixed wastes.

Regulatory requirements applicable to hazardous waste facilities include but are not limited to those specifying requirements for waste designation, permitting, storage, treatment, disposal, response to releases, and site closure. Hazardous Waste regulatory requirements of note in the context of this Final Determination include:

- Authorization of revisions to the State's hazardous waste program enabling regulation of the hazardous components of radioactive mixed wastes (52 Federal Register 35556 (September 22, 1987)).

**Washington's Dangerous Waste Regulations, Chapter 173-303 WAC, including but not limited to:**

- 173-303-070: Designation of Dangerous Wastes.
- 173-303-140: Land disposal restrictions.
- 173-303-145: Spills and Discharges into the Environment.
- 173-303-400: Interim Status Facility Standards.
- 173-303-645: Releases from Regulated Units.
- 173-303-646: Corrective Action.
- 173-303-600 & 610: Final Facility Standards, Closure and Postclosure.
- 173-303-630 Use and Management of containers

**The Federal Resource Conservation and Recovery Act, including but not limited to:**

- Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities at 40 CFR Part 265 subpart I
- RCRA Land Disposal Restrictions at 40 CFR Part 268.

Hanford mixed wastes and mixed waste facilities are subject to Part 268 Land Disposal Restrictions, which are incorporated by reference into the state program pursuant to WAC 173-303-140 (2) (a). These restrictions include prohibitions banning storage of waste restricted from land disposal unless certain conditions are met including provisions requiring that storage is solely for the purpose of accumulating such quantities of hazardous waste as necessary to facilitate proper recovery, treatment or disposal.

**The Federal Facility Compliance Act of 1992:**

- 42 U.S.C. § 6961, waiving sovereign immunity for violation of federal and state requirements respecting control, abatement and management of solid or hazardous wastes.
- 42 U.S.C. § 6939c, establishing requirements for the preparation of Site Treatment Plans (STP) in order to ensure compliance with federal and state hazardous waste requirements including LDR (the pre-existing HFFACO was recognized as serving the purpose of a STP).

#### IV. Ecology efforts to bring DOE's Hanford TRUM and MLLW into compliance with federal and state hazardous waste law.

On establishment of the HFFACO in 1989, DOE recognized that (its) provisions established pursuant to the Resource Conservation and Recovery Act (RCRA) "...are RCRA statutory requirements and are thus enforceable by the Parties" (HFFACO at paragraph 41).

Included within these provisions was HFFACO major milestone series M-33-00 which required that DOE develop and issue a Hanford "Site-Wide Systems Analysis" in order to be able to identify needed new facilities, or the modification of existing or planned facilities for the management of wastes such as TRUM and MLLW. Following issuance of this "systems analysis", DOE was required to propose additional HFFACO work schedules (milestones) for the management of such wastes.

M-33-00	SUBMIT A DOE-SIGNED CHANGE PACKAGE FOR ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, OR MODIFICATION OF PLANNED FACILITIES FOR STORAGE, PROCESSING AND/OR DISPOSAL OF SOLID WASTE AND MATERIALS BASED UPON THE RESULTS OF THE "SITE-WIDE SYSTEMS ANALYSIS."	6/30/1995
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Ecology's expectation was consequently that based on the receipt of this required HFFACO Change Control Form, the parties' would negotiate any needed modifications and establish appropriate compliance requirements.

However, as the due date for this submittal approached, DOE proposed, and Ecology agreed that additional time for the development of such milestone (schedules) was appropriate. As a result, Ecology and DOE placed the M-33-00 milestone "on hold" to allow for additional discussions between the parties, and to allow opportunity for input from the public and from Hanford stakeholder groups such as the Hanford Advisory Board<sup>8</sup>. During the course of ensuing negotiations, DOE again asserted that it was not prepared to propose specific milestones for the acquisition or modification of facilities necessary for the management of Hanford site solid wastes such as TRUM and MLLW. DOE subsequently proposed that it be afforded additional time for program development. Though disappointed in this additional delay, and concerned that it would necessarily delay the timely management of Hanford wastes, Ecology agreed. This agreement took the form of a new HFFACO milestone series (M-91-00)<sup>9</sup>.

#### History of this Dispute

The Parties' agreement to grant an additional (4 year) delay for the development of DOE plans for wastes such as TRUM and MLLW was founded in significant part on the concept of the development of a TRU/TRUM Project Management Plan (PMP). Requirements for the PMP were developed by the parties, and established along with the M-91-00 milestone series.

<sup>8</sup> The June 30, 1995 M-33-00 due date was deferred until December 31, 1995. That (expected) submittal was to have been followed by the negotiation of needed modifications prior to HFFACO milestone establishment.

<sup>9</sup> HFFACO Change Control Form M-91-96-01, December 31, 1996.

HFFACO requirements key to this dispute included the following:

a) Milestone requirements

M-91-00	<p>COMPLETE THE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE, TREATMENT / PROCESSING, AND DISPOSAL OF ALL HANFORD SITE TRU/TRUM, LLMW. AND GTC3.</p> <p>* Negotiation of schedules for facilities and/or facility modification which may be necessary for the management of Pre 1970 TRU/TRUM will be established following the issuance of Operable Unit Records of Decision (RODs).</p>	TO BE DETERMINED*
M-91-01	<p>COMPLETE THE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE AND TREATMENT / PROCESSING PRIOR TO DISPOSAL OF ALL HANFORD SITE POST 1970 TRU/TRUM.</p> <p>** The date for completion of M-91-01 will be determined after required technology has been determined through the TRU/TRUM PMP, but will be no later than December 2000.</p>	TO BE ESTABLISHED** (BUT NO LATER THAN 12/31/2000)
M-91-03	<p>SUBMIT HANFORD SITE TRU/TRUM WASTE PROJECT MANAGEMENT PLAN (PMP) TO ECOLOGY PURSUANT TO AGREEMENT SECTION 11.5.</p> <p>THE HANFORD SITE TRU/TRUM WASTE PMP WILL INCLUDE ALL PLAN ELEMENTS REQUIRED BY AGREEMENT ACTION PLAN SECTION 11.5. APPROVAL OF THE TRU/TRUM PMP AND ACCOMPANYING AGREEMENT CHANGE REQUESTS WILL ESTABLISH ALL MAJOR PROJECT TASKS AND DELIVERABLES FOR TREATMENT/STORAGE OF HANFORD SITE TRU/TRUM INCLUDING COMMERCIAL SECTOR MANAGEMENT, MODIFICATION OF EXISTING FACILITIES, AND CONSTRUCTION OF NEW FACILITIES.</p>	6/30/ 2000

b) Requirements of HFFACO Action Plan section 11.5 (Established concurrent with establishment of the M-91-00 milestone series):

"11.5 WASTE/MATERIAL STREAM PROJECT MANAGEMENT (WORK) PLANS PREPARED UNDER AGREEMENT MILESTONE SERIES M-90-00, M-91-00, AND M-92-00

Waste/Material Stream Project Management (Work) Plans (PMP) described here serve as the key project defining document consistent with Project Hanford and the requirements of this Agreement. As such, these PMPs will detail project objectives, work schedule(s), and expected outputs, integration with other programs and projects and project management alternatives consistent with established Agreement and other project constraints.

PMPs prepared under Agreement/milestone series ... M-91-00 ..., will (with the exceptions noted below) be prepared, reviewed, and approved as primary documents to the extent they deal with waste streams regulated by Ecology and/or EPA ... At the time PMPs are submitted for approval, they shall describe in

detail the work to be done and performance standards to be met. They shall also include critical path (implementation) schedule(s) with start and completion dates.

While the lead regulatory agency may review and comment on all elements of PMPs submitted pursuant to milestone series ... M-91-00 ..., neither Ecology nor EPA shall have approval authority for the PMP Funding Profile element, nor overall approval authority for Project Schedule and Critical Path Analysis, and Change Management elements. These elements shall be incorporated within the PMP as a distinct section or appendix. The Funding Profile shall include a life-cycle projection of annual funding required to accomplish project scope in accordance with the top level WBS and schedule. The parties also agree that lead regulatory agency review and approval of PMP Schedule and Critical Path Analysis, and Change Management elements is required for the purpose of ensuring consistency with Agreement milestones. PMPs submitted to the lead regulatory agency under this subsection which deal with waste streams regulated by Ecology and/or EPA shall contain the following elements:

- Project Goals and Objectives: A brief and concise statement documenting project objectives and requirements.
- Background: A description of key history, considerations, actions, and decisions leading to establishment of the project schedule. Elements will include the following:
  - (i) Physical information covering each identifiably different waste stream component (e.g., current inventories, component generation projections and component characterization data);
  - (ii) Discussion of current commercial disposition activities if any;
  - (iii) A discussion of component and stream stability, and known and suspected instances of contaminant migration;
  - (iv) A summary of (and appropriate citation for) any earlier evaluation of management and disposition options for each waste stream; and,
  - (v) A discussion of specific applicable regulatory requirements, and expected impacts to the project.
- Project Scope: A concise definition of the project including:
  - (i) A description of facility(s)/unit(s) clearly delineating the physical boundaries of the project;
  - (ii) A description of the planned approach (i.e., actions) clearly delineating the action boundaries of the project;
  - (iii) A top-level work breakdown structure (WBS) with an appended WBS dictionary which includes a brief description of each WBS element; and,
  - (iv) Projected TSD [*hazardous or mixed waste Treatment, Storage or Disposal facility*] capability relevant to management and disposition of each component. Capability information will include performance and specification requirements and projected capacity needs.
- Project Constraints, including established Agreement milestones: A concise description of externally established schedule requirements (e.g., performance specifications, specified start date(s), finish date(s), or logical relationship) with an identification of their source(s) for the project.
- Schedule and Critical Path Analysis: A logic-tied life-cycle schedule including major and interim milestones for the top-level work breakdown structure (WBS) and the project critical path. This is typically displayed as a milestone and critical path item listing and as an appended GANT chart.
- Key Deliverables / Products: A description of key deliverables and products resulting from each top-level WBS element including critical performance parameters.
- Performance Measurement: Documentation and description of specific performance measures (e.g., milestones and accomplishments) necessary to assess progress toward achieving project management plan objectives.

- Project Control: Identification of requirements and a summary description of the approach for each of the following:
  - (i) Project interface control (i.e., Site-Wide Systems Engineering); and
  - (ii) Reporting and notification requirements and processes.
- Change Management: Identification of change control requirements (e.g., thresholds). To include a summary description of the change control process, participants including their roles and responsibilities, and documentation.

*Draft Agreement change requests, proposed for approval will be referenced, and attached as an appendix to the PMP. ... each PMP shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers.” [Emphasis added]*

Thus, it was clear that on establishing HFFACO Action Plan section 11.5 and the M-91-00 milestone series, the Parties had agreed that additional delay was unacceptable, and that the intervening period (prior to TRU/TRUM PMP submittal) was to be used by DOE to develop a robust and integrated plan for the storage, treatment/processing, and disposal of all Hanford site TRU/TRUM. It was also clear that on submittal of the PMP, the DOE would propose, and the parties would subsequently establish sufficient enforceable HFFACO requirements (interim milestones) for all major project tasks and deliverables.

### Dispute Chronology<sup>10</sup>

#### DOE submits its June 2000 TRU/TRUM PMP

1. **June 28, 2000:** DOE submitted its TRU/TRUM PMP pursuant to HFFACO milestone M-91-03 on June 28, 2000<sup>11</sup>. Included was DOE’s proposed HFFACO Change Request #M-91-00-02, “Revise M-91 milestones associated with the treatment, storage and disposal (TSD) facilities for transuranic (TRU) and transuranic mixed (TRUM) waste streams”. Ecology’s review revealed that DOE’s PMP and its associated change request had widespread deficiencies, and that DOE had failed to meet the requirements of either HFFACO milestone M-91-03 or HFFACO Action Plan section 11.5.

<sup>10</sup> The following chronology is presented in order to depict Ecology’s efforts to resolve the parties’ M-91 dispute and bring DOE into compliance with HFFACO requirements for the management of Hanford site TRU/TRUM and associated MLLW. As such it tabulates key documents in the parties’ dispute. It is not intended as complete tabulation of all documents shared or transmitted by the parties in this time period.

<sup>11</sup> HNF-6287, Revision 1, Project Management Plan for Transuranic and Transuranic Mixed Waste per Tri-Party Agreement M-91-03, prepared for the U. S. Department of Energy by Fluor Hanford, June 28, 2000. (DOE’s TRU/TRUM PMP was submitted via DOE’s letter of transmittal 00-ORL-064, HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) “SUBMITTAL FOR FULLFILLMENT OF TRI-PARTY AGREEMENT MILESTONE M-091-03”, George Sanders, DOE Office of Regulatory Liaison to Michael A. Wilson, Nuclear Waste Management Program, Washington Department of Ecology, Also June 28, 2000.

2. **August 14, 2000:** Ecology's comments on review were forwarded DOE by letter dated August 14, 2000<sup>12</sup>. Deficiencies noted within Ecology's comments included, but were not limited to the following:

- "Plans to leave Post-1970TRU waste in the ground is a violation of the WIPP Land Withdrawal Act and the Hanford Defense Waste Environmental Impact Statement Record of Decision to ship waste."
- "Milestones presented in the change package are incomplete and unenforceable." [DOE's change request proposed a total of 5 HFFACO target dates, all of which were to be unenforceable]
- "The Change Request does not meet the requirements of HFFACO 11.5 (See especially the descriptive text in 11.5 following the bullets). Revise the PMP accordingly."
- Section 11.5 requires that the PMP include detailed work schedules (11.5, pp1). Revise the PMP accordingly."

It was apparent to Ecology that DOE had chosen to not meet the requirements of HFFACO milestone series M-91 or its Action Plan section 11.5.

3. **September 13, 2000:** DOE responded to Ecology by letter dated September 13, 2000<sup>13</sup>. This correspondence provided responses to individual Ecology comments including the following:

Ecology comment: "Plans to leave Post-1970TRU waste in the ground is a violation of the WIPP Land Withdrawal Act and the Hanford Defense Waste Environmental Impact Statement Record of Decision to ship waste."

- DOE Response: "*The PMP proposed two alternative plans for waste disposition. Option 1 presented in Section 3.3 complies with the current HDW-EIS ROD. As described on page 2-8, Lines 14-20, alternatives to TRU/TRUM waste disposal at WIPP are not precluded by the WIPP Land Withdrawal Act. Option 2 presented in Section 3.4 provides for some onsite disposal of wastes that present a potentially high risk of personnel exposure and environmental impact during retrieval and processing.*

*All decisions regarding ultimate disposition of TRU/TRUM waste will comply with the SW-EIS when issued (refer to page 2-7, Lines 14-21). If the SW-EIS ROD prohibits disposal of*

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<sup>12</sup> Letter, "Review of the Project Management Plan (PMP) for Transuranic and Transuranic Mixed Waste ((Hanford Federal Facility Agreement and Consent Order [HFFACO], Milestone M-91-03), Ted Wooley, Washington Dept. of Ecology to George Sanders, DOE.

<sup>13</sup> Letter (00-WMD-165), HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) MILESTONE M-91-03, PROJECT MANAGEMENT PLAN FOR TRANSURANIC AND TRANSURANIC MIXED WASTE, Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, September 13, 2000.

*Post-1970 TRU onsite, the selected option will be amended, as required, to ensure compliance with the new ROD. If onsite disposal is allowed as an option, all applicable regulations (i.e., DOE O 435.1 and 40 CFR 191) will be complied with for any waste disposed of onsite. ...”*

Ecology comment: “Milestones presented in the change package are incomplete and unenforceable.”

- DOE response: *“The TPA milestone change request is draft and subject to negotiation. The content will depend on the outcome of the negotiations among the TPA parties.”*

Ecology found this last DOE response particularly troublesome in that it disregarded requirements for the draft HFFACO change request negotiated in good faith four years previously. It appeared to Ecology that rather than complying with HFFACO (TPA) requirements, DOE was embarking on a game of “catch me if you can”. DOE’s letter also noted DOE’s hope that DOE and Ecology staff could sit down during the following month to discuss TRU/TRUM activities and reach agreement on a path forward.

4. **September 28, 2000:** On September 28, 2000, DOE forwarded three HFFACO change requests regarding its compliance with HFFACO requirements and the TRU/TRUM PMP.<sup>14</sup> Two of these were germane to this Final Determination:

Change Request M-91-00-03: With the HFFACO December 2000 due date for milestone M-91-01 approaching (See earlier depiction of this milestone under “History of this Dispute”), DOE proposed that it be deleted and replaced with the notation To be Determined (TBD). Because DOE approved this change request by signature, Ecology was procedurally bound to approve or disapprove within 14 days.

Draft Change Request M-91-00-04: This revised draft modified DOE’s proposal of June 28. In it, DOE proposed the establishment of 2 interim milestones for the development and submittal of functional and conceptual design documents for a facility DOE referred to as the “TRU/TRUM Project retrieval and processing facility”. DOE also proposed that 3 additional TRU/TRUM related milestones be established, but proposed that due dates for these actions be established in the future.

5. **October 13, 2000:** Ecology responded on October 13, 2000<sup>15</sup>, noting that it was initiating dispute pursuant to the terms of the HFFACO, and that it found information provided by DOE “... insufficient to address the deficiencies of the “Project Management Plan for Transuranic and Transuranic Mixed Waste per Tri-Party Agreement M-91-03.” Ecology’s response also noted

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<sup>14</sup> Letter (00-ORL-082): WASTE MANAGEMENT PROGRAM HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI PARTY AGREEMENT) CHANGE CONTROL FORMS M-91-00-02, 03 AND 04 ADDRESSING MIXED WASTES, Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, and Douglas R. Sherwood, EPA Hanford Project Office, September 13, 2000.

<sup>15</sup> Letter: Laura C. Cusack for Fred Jamison, Washington Department of Ecology, Nuclear Waste Program to Clifford E. Clarke, DOE Office of Regulatory Liaison, October 13, 2000.

that DOE's change requests M-91-00-03 and M-91-00-04 were unacceptable for reasons including, but not limited to, DOE's failure to include provisions related to "accountability" that had earlier been discussed with DOE as a reflection of the States' growing concern over continuing delays in HFFACO compliance and TRU/TRUM waste management.

6. **October 19, 2000:** In this correspondence<sup>16</sup> DOE noted its objection to Ecology's disapproval, and its intent to work TRU/TRUM dispute issues at the project manager level as prescribed by HFFACO dispute resolution provisions.

7. **October 19, 2000:** In this (second piece of October 19) correspondence<sup>17</sup> DOE noted that it had also received Ecology's disapproval of its M-91-00-04 change request regarding HFFACO milestone M-91-03. DOE noted its objection to Ecology's disapproval, and its intent to work TRU/TRUM dispute issues at the project manager level as prescribed by HFFACO dispute resolution provisions.

8. (No date): **Extension of the Parties' dispute** regarding HFFACO milestone's M-91-01 and M-91-03 to January 23, 2001<sup>18</sup>.

During this time period the parties continued to meet with one another on issues pertaining to the M-91 HFFACO. No resolution was reached.

9. (No date): **Extension of the Parties' dispute** regarding HFFACO milestone's M-91-01 and M-91-03 to April 23, 2001<sup>19</sup>.

10. **March 29, 2001:** On this date DOE submitted a draft revised TRU/TRUM PMP following dispute resolution discussions between the parties<sup>20</sup>. In its letter of submittal DOE

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<sup>16</sup> Letter (01-ORL-001): INITIATION OF M-91-01 DISPUTE RESOLUTION FOR CHANGE REQUEST 91-00-03, Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, October 19, 2000.

<sup>17</sup> Letter (01-ORL-003): INITIATION OF M-91-03 DISPUTE RESOLUTION FOR CHANGE REQUEST 91-00-04, Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, October 19, 2000.

<sup>18</sup> EXTENSION OF DISPUTE RESOLUTION TO JANUARY 23, 2001, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE REQUEST 91-00-04 (FOR M-091-03) AND CHANGE REQUEST 91-00-03 (FOR M-091-01), Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Operations Office.

<sup>19</sup> EXTENSION OF DISPUTE RESOLUTION TO April 23, 2001, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE REQUEST M-91-00-04 (FOR M-091-03) AND CHANGE REQUEST M-91-00-03 (FOR M-091-01), Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Operations Office.

<sup>20</sup> Letter and enclosure (01-RCA-225): TRANSMITTAL OF DRAFT M-091-03 PROJECT MANAGEMENT PLAN (PMP) FOR TRANSURANIC / TRANSURANIC MIXED (TRU/TRUM) WASTE, Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, October 19, 2000.

noted that its submittal also contained a matrix depicting, in DOE's view, how the PMP aligned with the requirements of HFFACO Action Plan Section 11.5. DOE also noted that pursuant to discussions with Ecology, it would be submitting a follow-on submittal containing a (TRU/TRUM PMP) change request and follow-up budget information.

10. **April 6, 2001:** In this correspondence<sup>21</sup> DOE transmitted its proposed revised TRU/TRUM PMP change request (marked as M-91-00-XX, and dated April 4, 2001). It also included a rough tabulation of expected TRU/TRUM PMP life-cycle costs for "RH and large item TRU". It noted that "significant changes" to these projected costs were expected "upon receipt of new budget guidance from DOE-HQ and subsequent development of the new Fluor Hanford Inc. Baseline in June of 2001".

DOE's revised change request proposed modifying two M-91 series (unenforceable) target dates, and proposed the establishment of 2 new interim milestones, one requiring the submittal of an annual progress report regarding TRU/TRUM PMP activities, and another requiring the submittal of functional design criteria for its envisioned "TRU/TRUM retrieval and processing facility.

11. **April 9, 2001:** In this correspondence<sup>22</sup> Ecology noted its receipt of DOE's March 29, 2001 TRU/TRUM PMP revision and commented that it provided both "new and useful information for review", but that additional specific information was needed to comply with all elements of Section 11.5." (a listing of information needs followed).

Ecology's April 9, 2001 letter also noted that review of DOE's change request M-91-00-XX revealed it to be:

"...lacking in enforceable commitments in several areas (e.g., for TRU/TRUM retrieval, for processing CH TRU/TRUM waste at WRAP and subsequent shipment to WIPP, etc.; and, in particular, the need to identify any waste description data gaps that must be filled pursuant to enforceable milestones) and will therefore require further discussion."

Ecology noted that "Pursuant to Article VIII, Resolution of Disputes, paragraph 30 of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) and to provide USDOE with time needed to develop and submit this additional information, Ecology will recommend to the IAMIT [*the parties' joint Inter-Agency Management and Integration Team, the second tier of the agencies' dispute resolution process*] on April 24, 2001, that the current M-91-03 dispute resolution process at the Project Manager level be extended to May 22, 2001. If USDOE is not in agreement to extending the deadline, please contact Ecology within seven (7) days."

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<sup>21</sup> Letter and enclosures (01-RCA-244): TRANSMITTAL OF ADDITIONAL INFORMATION TO SUPPORT THE M-091-03 PROJECT MANAGEMENT PLAN (PMP) FOR TRANSURANIC / TRANSURANIC (TRU/TRUM) WASTE, Ellen Mattlin for Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, April 6, 2001.

<sup>22</sup> Letter, Fred C. Jamison, Washington Department of Ecology, Nuclear Waste Program to Clifford E. Clarke, DOE Office of Regulatory Liaison, April 9, 2001.

12. (No date) **Extension of the Parties' dispute** regarding HFFACO milestone's M-91-01 and M-91-03 from April 24 to May 22, 2001<sup>23</sup>.

During this time period the parties continued to meet with one another on issues pertaining to the M-91 HFFACO. No resolution was reached.

13. **May 22, 2001:** On this date DOE "formally" submitted a revised TRU/TRUM PMP and change request pursuant to HFFACO milestone M-91-03<sup>24</sup>. DOE's attached (M-91-01-03) change request proposed that HFFACO milestone M-91-01 (for completing the acquisition or modification of facilities necessary for the management of Post 1970 TRU/TRUM, and requiring that a completion date be established no later than December 2000) be modified to govern the completion of a "decision process" on the need for Post 1970 TRU/TRUM facilities, and noted that the milestone would be "...complete upon submission to Ecology of a letter indicating existing facilities are sufficient for TRU/TRUM treatment/processing or that a new facility is required with a change request establishing an acquisition schedule."

Approval of DOE's proposed M-91-01 milestone would have given DOE unfettered discretion over whether and when to acquire TRU/TRUM facilities and perform work needed to come into compliance,

DOE's change request also proposed a number of additional target dates and milestones covering activities such as the submittal of TRU/TRUM engineering and functional design criteria studies, the award of contracts for RH and large size TRU/TRUM, the retrieval of CH TRU/TRUM drums at Hanford burial grounds, and the submittal of a revised TRU/TRUM PMP.

14. **May 22, 2001: Extension of the Parties' dispute** regarding HFFACO milestone's M-91-01 and M-91-03 to June 26, 2001 in order to allow for review of DOE's revised TRU/TRUM PMP<sup>25</sup>.

15. **June 14, 2001:** This correspondence documented Ecology's review of DOE's May 22, 2001 PMP and change request. Ecology noted that while the May 22, 2001 PMP provided most of the additional information that had been requested, its associated change request presented "a

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<sup>23</sup> EXTENSION OF DISPUTE RESOLUTION FROM APRIL 24, 2001, TO MAY 22, 2001, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST M-91-00-04 (FOR M-091-03) AND CHANGE REQUEST M-91-00-03 (FOR M-091-01), Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Operations Office.

<sup>24</sup> Letter and attachments (01-RCA-300): TRANSMITTAL OF M-091-03 PROJECT MANAGEMENT PLAN (PMP) AND ASSOCIATED CHANGE REQUEST FOR TRANSURANIC / TRANSURANIC MIXED (TRU/TRUM) WASTE, Clifford E. Clarke, DOE Office of Regulatory Liaison to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, May 22, 2001.

<sup>25</sup> EXTENSION OF DISPUTE RESOLUTION TO THE JUNE 26, 2001, IAMIT IN ORDER FOR ECOLOGY TO REVIEW AT THE PROJECT MANAGER LEVEL THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE REQUEST M-91-00-04 AND M-091-03 "THE TRANSURANIC (TRU) / TRANSURANIC MIXED (TRUM) PROJECT MANAGEMENT PLAN", Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and Rich Holten for W. Wade Ballard, DOE Richland Operations Office, May 22, 2001.

number of problematic issues that are not consistent with the work scope of the PMP and/or do not meet specific requirements of various sections of the Hanford Federal Facility Agreement and Consent Order (TPA).” Examples included, but were not limited to the following:

- The proposed milestones did not embrace the full work scope set forth in the PMP by providing sufficient enforceable commitments to cause actual work (as opposed to only planning and/or decision making) on all elements of the PMP work plan.
- The change request did not propose the establishment of at least one interim milestone every 12 months, per HFFACO Action Plan Section 11.5. Ecology’s letter also noted that the project managers had reached no other agreement.
- The proposed milestones, in extending dates, would modify virtually all current TPA requirements established and agreed to by the parties under milestone series M-91-00, without providing “good cause for extension”.

Ecology’s letter also stated that:

“Pursuant to Article VIII, Resolution of Disputes, paragraph 30 of the TPA and to provide USDOE with time needed to resolve these inconsistencies, Ecology proposes to recommend to the IAMIT on June 29, 2001, that the parties agree to begin formal negotiations by September 1, 2001. The negotiations are to be concluded by October 31, 2001. If these negotiations are not successful and USDOE wishes to extend the dispute, USDOE must submit a statement of the dispute to the IAMIT by November 1, 2001.”

16. **June 29, 2001: Extension of the Parties’ dispute** regarding HFFACO milestones M-91-01 and M-91-03 to the parties’ June 29, 2001 IAMIT<sup>26</sup>.

17. **June 29, 2001: Extension of the Parties’ dispute** regarding HFFACO milestone M-91-03 to September 1, 2001<sup>27</sup> by way of the following language:

“Pursuant to Article VIII, Resolution of Disputes, paragraph 30 of the Tri-Party Agreement, the parties agree to begin formal negotiations by September 1, 2001, concerning the Tri-Party Agreement Change Request M-91-00-04 for M-091-03, “The TRU/TRUM Project Management Plan.” The negotiations are to be concluded by October 31, 2001. If these negotiations are not successful and the US Department of Energy, Richland Operations Office (RL) wishes to extend the dispute, then a Statement of Dispute needs to be submitted by RL to the IAMIT by November 1, 2001.”

<sup>26</sup> EXTENSION OF DISPUTE RESOLUTION TO THE JUNE 29, 2001, IAMIT IN ORDER FOR ECOLOGY TO REVIEW AT THE PROJECT MANAGER LEVEL THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER CHANGE REQUEST M-91-00-04 AND M-091-03 “THE TRANSURANIC (TRU) / TRANSURANIC MIXED (TRUM) PROJECT MANAGEMENT PLAN”, Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Operations Office, June 29, 2001.

<sup>27</sup> EXTENSION OF DISPUTE RESOLUTION PROCESS AT THE PROJECT MANAGER’S LEVEL TO SEPTEMBER 1, 2001, WHEN FORMAL NEGOTIATIONS WILL BEGIN CONCERNING THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST 91-00-04 FOR TRI PARTY AGREEMENT MILESTONE M-091-03, “THE TRANSURANIC (TRU) / TRANSURANIC MIXED (TRUM) PROJECT MANAGEMENT PLAN”, Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Field Office, June 29, 2001.

During this time period the parties continued to meet with one another on issues pertaining to the M-91 HFFACO. No resolution was reached.

18. **October 31, 2001**: Extension of the parties' dispute to January 31, 2002 to allow for continued negotiations<sup>28</sup>.

"Pursuant to Article VIII, Resolution of Disputes, paragraph 30 of the Tri-Party Agreement, the parties agree to extend formal negotiations at the Project Manager's level from October 31, 2001 to January 31, 2002, concerning the Tri-Party Agreement Change Request 91-00-04 for M-091-03, "The TRU/TRUM Project Management Plan." The negotiations are to be concluded by October 31, 2001. If these negotiations are not successful, and the US Department of Energy, Richland Operations Office (RL) wishes to extend the dispute, RL will submit a Statement of Dispute to the Interagency Management Integration Team by February 1, 2002."

During this time period the parties continued to meet with one another on issues pertaining to the M-91 HFFACO series. No resolution was reached.

19. **January 31, 2002**: On this date (the parties' not having reached agreement) DOE submitted its statement of dispute regarding HFFACO milestones M-91-01 and M-91-03<sup>29</sup>, thereby raising the dispute to the parties' IAMIT.

DOE's Statement of Dispute noted that it felt it should be granted a 60 day extension of dispute (also requested on January 31, 2002) in order to "...establish funding priorities and corresponding milestone activities consistent with the [DOE] "Top to Bottom" review and Fiscal Year 2003 budget currently being performed by DOE's Office of Environmental Management."

DOE's specific relief sought was that "...the IAMIT Team meet to discuss the Top to Bottom Review impacts, new information, or redirection, if any, impacting milestones M-91-03 and commitment date for a date for M-91-01. Upon understanding one another's interests and capabilities that DOE be permitted to submit an acceptable TPA change package reflecting unanimous resolution of the dispute resulting from those discussions."

Ecology was disappointed in this statement of dispute in that it did not substantively address the issues central to the parties' dispute (the establishment of a due date for milestone M-91-01, and

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<sup>28</sup> EXTENSION OF DISPUTE RESOLUTION PROCESS AT THE PROJECT MANAGER'S LEVEL FROM OCTOBER 31, 2001, TO JANUARY 31, 2002, FOR FORMAL NEGOTIATIONS CONCERNING THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST 91-00-04 FOR TRI-PARTY AGREEMENT MILESTONE M-091-03, "THE TRANSURANIC (TRU) / TRANSURANIC MIXED (TRUM) PROJECT MANAGEMENT PLAN", Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Field Office, October 31, 2001.

<sup>29</sup> Letter and attachment (02-RCA-0165): TRANSMITTAL OF STATEMENT OF DISPUTE (SOD) FOR HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) MILESTONE M-091-03 AND COMMITMENT DATE FOR M-091-01, Joel Hebdon, DOE Regulatory Compliance and Analysis Division, to Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program, January 31, 2002.

the inadequacies of DOE's TRU/TRUM PMP and associated HFFACO proposed change request required to be submitted pursuant to milestone M-91-03).

20. (No date): **Extension of the Parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to March 15, 2002<sup>30</sup>.

During this time period the parties continued to meet with one another on issues pertaining to the M-91 HFFACO. No resolution was reached.

21. **March 15, 2002: Extension of the parties' dispute** from March 15, 2002 to June 15, 2002<sup>31</sup>. This extension included the following language"

"An extension to June 15, 2002, is agreed to by the parties in order to continue dispute resolution discussions at the Inter Agency Management and Integration Team (IAMIT) level. Issues associated with this M-91-00 series dispute include, but are not limited to issues that the parties' negotiators have agreed warrant the involvement of agency executive management in order to aid efforts to resolve this dispute. Specifically, three issues have been identified: i) consideration of the advisability of incorporating schedules assuring the shipment of Hanford site transuranic wastes to DOE's Waste Isolation Pilot Plant, ii) consideration of the advisability of incorporating language relating to DOE's recent "small sites" proposal regarding potential Hanford site acceptance of transuranic wastes from other locations within the DOE complex, and iii) consideration of the advisability of the incorporation of provisions related to DOE and DOE site contractor accountability in implementing requirements established as a result of the parties' dispute resolution efforts."

22. **June 13, 2002** (by hand notation): **Extension of the parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to July 18, 2002<sup>32</sup>. This extension further recognized the 3 issues the parties' negotiators had recognized as needing the involvement of agency executive management (See March 15 extension above).

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<sup>30</sup> EXTENSION OF DISPUTE RESOLUTION TO MARCH 15, 2002, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (HFFACO) CHANGE REQUEST M-91-00-03 (FOR HFFACO MILESTONE M-91-01) AND CHANGE REQUEST M-91-00-04 (FOR HFFACO MILESTONE M-91-03), Laura C. Cusack for Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Field Office.

<sup>31</sup> EXTENSION OF DISPUTE RESOLUTION TO JUNE 15, 2002, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (HFFACO) CHANGE REQUEST # M-91-00-03 (FOR HFFACO MILESTONE M-91-01), CHANGE REQUEST # M-91-00-04 (FOR HFFACO MILESTONE M-91-03), AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Roger Stanley for Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Field Office, March 15, 2002.

<sup>32</sup> EXTENSION OF DISPUTE RESOLUTION TO JULY 18, 2002, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI PARTY AGREEMENT) CHANGE REQUEST NUMBER M-91-00-03 (FOR TRI PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI PARTY AGREEMENT MILESTONE M-091-03), AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Field Office, June 13, 2002.

23. **July 18, 2002:** On this date DOE forwarded to Ecology a revised, and DOE approved, HFFACO change request covering TRU/TRUM waste management and the parties' dispute<sup>33</sup>. This change request (#M-91-02-01, also dated July 18, 2002), though not agreed to by the parties, represented a significant advance in that it was based on a number of elements then currently the subject of discussion by agency negotiators. These included the following:

- A potential shift in the orientation of M-91 series milestones from one of facility acquisition to completion of waste management activities,
- A focus on "working down" the volume of legacy MLLW within DOE's Central Waste Complex,
- The retrieval of contact handled suspect TRU/TRUM from DOE's burial grounds.
- The development and issuance of "risk based studies" attempting to evaluate risks associated with Pre 1970 suspect TRU/TRUM, and Post 1970 TRU/TRUM remaining after proposed retrievals, ("determining the extent to which remaining post - and pre 1970 suspect TRU must be retrieved),
- Schedules for the certification and shipment of TRUM wastes to WIPP.

Nonetheless, DOE's July 18 change request did not address facilities needed for the management of Hanford site TRU/TRUM; did not establish all major tasks and deliverables for treatment/storage of Hanford site TRU/TRUM including commercial sector management, modification of existing facilities and construction of new facilities; did not commit to the characterization and/or designation of all Hanford site Post 1970 TRUM and MLLW per hazardous waste law; did not address the 3 issues flagged by agency negotiators as issues for executive agency management input; and was based on what appeared to be a growing DOE concept of leaving, rather than retrieving a significant portion of suspect pre and post 1970 TRU/TRUM.

24. **August 1, 2002:** Extension of the Parties' dispute regarding HFFACO milestones M-91-01 and M-91-03<sup>34</sup> to August 31, 2002, noting the following:

"On June 13, 2002, the State of Washington Department of Ecology (Ecology) and the U. S. Department of Energy, hereafter known as the Parties, extended this dispute resolution process at the Interagency Management Integration Team (IAMIT) level to July 18, 2002. Because the Parties were unable to resolve the dispute by July 18, 2002, at the IAMIT level, a 14-day period commenced for the Director of Ecology

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<sup>33</sup> Letter (02-RCA-0468): HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE CONTROL FORM M-91-02-01, Michael H. Schlender for Keith A. Klein, DOE Richland Field Office to Tom Fitzsimmons, Washington Department of Ecology and L. John Iani, U. S. Environmental Protection Agency, July 18, 2002.

<sup>34</sup> EXTENSION OF DISPUTE RESOLUTION TO AUGUST 31, 2002 TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST NUMBER m-91-00-03 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-03) AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Laura Cusack for Michael A. Wilson, Washington Department of Ecology, Nuclear Waste Program and W. Wade Ballard, DOE Richland Field Office, August 1, 2002.

to issue a Final Determination pursuant to Agreement Article VIII, Paragraph 30.D. This Directors Final Determination would be due on August 1, 2002.

An extension to August 31, 2002, is agreed to by the Parties in order to continue dispute resolution discussions regarding Tri-Party Agreement Change Request M-91-00-03 (for Tri-Party Agreement Milestone M-091-01), Tri-Party Agreement Change Request M-91-00-04 (for Tri-Party Agreement Milestone M-091-03) and associated dispute-related correspondence. This extension will extend the period of time allowed for the issuance of a Director's Final Determination through August 31, 2002."

25. (No date): **Extension of the Parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to October 31, 2002<sup>35</sup>, noting the following:

"An extension to October 31, 2002, is agreed to by the Parties in order to continue dispute resolution discussions regarding Tri-Party Agreement Change Request M-91-00-03 (for Tri-Party Agreement Milestone M-091-01), Tri-Party Agreement Change Request M-91-00-04 (for Tri-Party Agreement Milestone M-091-03) and associated dispute-related correspondence. This extension will extend the period of time allowed for the issuance of a Director's Final Determination through October 31, 2002."

26. **October 30, 2002: Extension of the Parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to December 13, 2002<sup>36</sup>.

27. **December 9, 2002: Extension of the Parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to December 20, 2002<sup>37</sup>.

28. **December 13, 2002: meeting between Ecology and DOE HQ's.**

As a reflection of the State's increasing frustration over delays in the management of Hanford site TRUM and MLLW, and in response to the threat of a State lawsuit to block DOE proposed shipment of small quantities of transuranic wastes from other DOE sites to Hanford, the Director

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<sup>35</sup> EXTENSION OF DISPUTE RESOLUTION TO OCTOBER 31, 2002, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST NUMBER M-91-00-03 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-03) AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Tom Fitzsimmons, Washington Department of Ecology, Nuclear Waste Program and Keith A. Klein, DOE Richland Field Office.

<sup>36</sup> EXTENSION OF DISPUTE RESOLUTION TO DECEMBER 13, 2002, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST NUMBER M-91-00-03 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-03) AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Tom Fitzsimmons, Washington Department of Ecology, Nuclear Waste Program and Keith A. Klein, DOE Richland Field Office, October 30, 2002.

<sup>37</sup> EXTENSION OF DISPUTE RESOLUTION TO DECEMBER 20, 2002, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST NUMBER M-91-00-03 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-03) AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Tom Fitzsimmons, Washington Department of Ecology, Nuclear Waste Program and Keith A. Klein, DOE Richland Field Office, December 9, 2002.

of Ecology and its Nuclear Waste Program Manager met with DOE Assistant Secretary Jessie Roberson in Washington DC in mid December 2002. As an outcome of this meeting, Ecology Director Tom Fitzsimmons and DOE Assistant Secretary Roberson committed that in order to establish appropriate requirements for the expedited cleanup of the Hanford site, the DOE, the State, and EPA would reengage in and complete negotiations by March 1, 2003 of new requirements for the retrieval and characterization of certain waste that is suspected of being mixed waste, and the appropriate management of mixed waste once determined through characterization.

Ecology hoped that this commitment from DOE executive management would break longstanding delay in the establishment of HFFACO requirements for the management of Hanford site TRUM and MLLW. In return, Ecology agreed not to sue to block shipments of specified small quantities of transuranic waste shipped to the Hanford site prior to March 1, 2003.

29. **December 19, 2002: Extension of the Parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to March 1, 2003<sup>38</sup>.

30. **February 28, 2003: Extension of the Parties' dispute** regarding HFFACO milestones M-91-01 and M-91-03 to March 10, 2003<sup>39</sup>

This final extension of the Parties' dispute was issued following DOE's refusal to agree to terms that had served as primary assumptions during (dispute resolution) negotiations, and extended the period of time for issuance of a Final Determination through March 10, 2003.

#### **Final efforts to resolve the parties' M-91 dispute**

Early in January of 2003, DOE, Ecology and EPA reinitiated negotiations under assumptions substantially similar to those utilized in the summer of 2002, i.e., potentially recasting the M-91 milestone series as requirements establishing processing rates for the retrieval and management of the subject waste streams; that commitments should schedule DOE to "work down" its volume of legacy MLLW within DOE's Central Waste Storage Complex; that requirements should schedule the retrieval of wastes from DOE's "retrievably stored waste" burial trenches; and that

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<sup>38</sup> EXTENSION OF DISPUTE RESOLUTION TO MARCH 1, 2003, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST NUMBER M-91-00-03 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-03) AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Tom Fitzsimmons, Washington Department of Ecology, and Keith A. Klein, DOE Richland Field Office, December 9, 2002.

<sup>39</sup> EXTENSION OF DISPUTE RESOLUTION TO MARCH 10, 2003, TO RESPOND TO HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE REQUEST NUMBER M-91-00-03 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-01), CHANGE REQUEST NUMBER M-91-00-04 (FOR TRI-PARTY AGREEMENT MILESTONE M-091-03) AND ASSOCIATED DISPUTE RELATED CORRESPONDENCE BETWEEN THE AGENCIES, Tom Fitzsimmons, Washington Department of Ecology, and Keith A. Klein, DOE Richland Field Office, February 28, 2003.

new HFFACO schedules developed should extend through the completion of certification of Hanford site transuranic wastes for shipment to DOE's Waste Isolation Pilot Plant (WIPP)<sup>40, 41</sup>.

In this final effort at reaching a negotiated settlement, the parties also recognized that: a) DOE has not as yet designated wastes stored within its "retrievably stored waste" trenches as required by Washington state law, b) that until adequately characterized and designated, all of DOE's retrievably stored wastes are considered suspect mixed waste (i.e., waste regulated as dangerous waste pursuant to Washington's Hazardous Waste Management Act), c) that DOE's retrievably stored wastes do not comply with applicable hazardous waste requirements, d) that in addition to retrievably stored wastes, and similar wastes now stored or located in above ground facilities, the parties' negotiations should include TRU/TRUM to be generated as a result of future Hanford site cleanup decisions issued following CERCLA remedial and/or RCRA corrective action investigations, and e) that their negotiations should include wastes expected to be generated at DOE's 618 10 & 11 burial grounds (for which a CERCLA Record of Decision (ROD) has already been issued).

Though the parties' made considerable progress towards resolution, these negotiations were unsuccessful. Issues remaining at the conclusion of negotiations included, but were not limited to the following:

- The establishment of HFFACO requirements consistent with those of HFFACO milestone series M-91 and HFFACO Action Plan section 11.5.
- The establishment of HFFACO requirements for the designation of wastes as required by the federal Resource Conservation and Recovery Act, and Washington's Hazardous Waste Management Act;
- The establishment of HFFACO requirements regarding the retrieval of wastes from DOE's non-compliant storage locations;
- The establishment of HFFACO requirements regarding compliant storage of wastes once retrieved from DOE's Hanford site trenches.
- The establishment of commitments regarding the future establishment of HFFACO requirements (e.g., milestone schedules) reflecting regulatory decisions made via CERCLA Records of Decision and RCRA past practice or closure requirements;

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<sup>40</sup> The parties' emphasis on developing HFFACO requirements regarding risk based studies pertaining to DOE pre-1970 transuranic waste sites was dropped in recognition that such studies need not be managed via HFFACO requirements, and that similar evaluations are scheduled for execution as part of Hanford site cleanup investigations pursuant to the Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA).

<sup>41</sup> In late 2002 and early 2003, DOE also asserted that it would not agree to HFFACO schedules governing the shipment of transuranic waste from Hanford to WIPP. As a result, the parties' negotiations included an assessment of Hanford work that might be acceptable to each party, but which would, in part, act as "surrogate milestones" for shipment of wastes to WIPP (surrogate HFFACO requirements that would give the State adequate assurance that such wastes would not remain at Hanford).

- The establishment of commitments recognizing the applicability of Washington's hazardous waste management program to DOE's 200 West area caissons;
- The establishment of HFFACO requirements recognizing, and directing remedial action at specific locations within DOE's "low-level" burial grounds that are suspected of releasing carbon-tetrachloride to the environment.

**In addition to the preceding examples, DOE notified the State and EPA on February 27, 2003 (two days prior to the March 1<sup>st</sup> deadline) that it was unwilling to agree to the establishment of enforceable HFFACO requirements for the certification of Hanford transuranic wastes (certification of readiness for shipment to WIPP for disposal). This, 12<sup>th</sup> hour refusal by DOE was the last straw in that the concept of enforceable certification schedules – as surrogate milestones for shipment schedules – had been a central premise of the parties' negotiations for over six months.**

#### **V. DOE Proposed Resolution**

DOE's January 31, 2002 Statement of Dispute, at "Relief Sought" did not propose a specific resolution, but requested that time for additional discussions between the Parties' be granted.

"[DOE] RL requests that the IAMIT Team meet to discuss the Top to Bottom Review impacts, new information, or redirection, if any, impacting milestones M-91-03 and commitment for a date for M-91-01. Upon understanding one another's interests and capabilities that DOE be permitted to submit an acceptable TPA change package reflecting unanimous resolution of the dispute resulting from those discussions."

Though disapproving DOE's January 31, 2002 request for extension at the IAMIT level, DOE's request has, in effect been granted, in that subsequent / multiple extensions at the Director's level have extended the time for issuance of a Final Determination and have allowed for additional discussions.

HFFACO milestones that DOE proposed for resolution of this dispute were unacceptable in that they did not provide sufficient assurance that Hanford site TRU/TRUM would be retrieved, designated, stored, and otherwise managed in accordance with applicable regulatory requirements. As a result of these deficiencies, a wide array of Hanford site wastes posing significant and continuing risks to human health and the environment remain largely unaddressed after many years of delay.

#### **VI. Findings and Final Determination**

DOE failed to meet the requirements of HFFACO milestone M-91-03 in that its submittal failed to include all plan elements required by HFFACO Action Plan Section 11.5. This failure on DOE's part subsequently resulted in an unacceptable delay in establishing the due date for establishment of a date for the completion of facility acquisition or modification as required by HFFACO milestone M-91-01.

The parties' dispute resolution efforts have centered on the development of commitments and requirements necessary for the cleanup and management of Hanford site transuranic, transuranic

mixed, and associated mixed low-level wastes. Facts relevant to the parties' dispute date back, at least, to the mid 1990's with the establishment of major milestone series M-33-00 (January 1994). This milestone envisioned that DOE's waste management program planning would evolve to the point that by June, 1995, DOE would be able to submit a signed HFFACO Change Request proposing the establishment of milestones necessary for the acquisition of new facilities, modification of existing facilities, or the modification of planned facilities as needed for the management of wastes such as Hanford's TRU/TRUM and MLLW. The Parties' subsequently established M-91-00 series has been the victim of DOE's failure to develop its waste management program or to meet established, and mutually agreed upon HFFACO requirements.

DOE actions to establish and support a waste management program for suspect TRU/TRUM have been excessively slow, and have often been characterized by attempts by DOE to avoid its responsibility to timely comply with hazardous waste law and associated HFFACO requirements. As a result, the parties' dispute regarding DOE's TRU/TRUM PMP and associated HFFACO milestones M-91-01 & 03 have been the subject of extensive delay and multiple extension (16 to-date).

DOE's failure to comply with HFFACO requirements raises significant doubt that DOE will perform required work in a timely manner or maintain compliance, even if new HFFACO milestones are established. Ecology has repeatedly raised this issue of "accountability" during the parties' discussions.

**Consequently, in light of the Administrative Record and the findings outlined above, in order to resolve the parties' HFFACO dispute regarding milestones M-91-01 and M-91-03, and in order to ensure the safe and timely retrieval, treatment and disposal of Hanford site transuranic and transuranic mixed waste, my final determination in this matter is as follows:**

**I.**

1. DOE shall submit a revised TRU/TRUM PMP in accordance with the requirements of HFFACO milestone M-91-03 and Action Plan Section 11.5 no later than August 31, 2003.

Revisions shall include PMP revisions as necessary to reflect significant changes in DOE's knowledge regarding volumes of waste, capabilities necessary for appropriate management, and threats to human health and the environment presented by Hanford site TRU/TRUM. Revisions shall reflect any external project requirements, including but not limited to the requirements of this Final Determination and any other applicable regulatory requirements in effect as of August 31, 2003.

2. At a minimum, DOE will submit additional TRU/TRUM PMP revisions for approval on 3/31/2009 and 3/31/2013. Such additional revisions shall also meet the requirements of HFFACO section 11.5, this Final Determination and any external project constraints as of these submittal dates.

3. DOE's revised PMP's shall provide current and projected waste volumes and types for all Hanford site TRU/TRUM<sup>42</sup> and projected off-site TRU/TRUM requiring retrieval, designation, treatment and/or processing at Hanford. Such revisions shall identify current retrieval, designation and processing capabilities for these wastes. Revisions shall also detail a specific plan for developing any additional capability required to retrieve, designate, treat, and/or process Hanford site TRU/TRUM to satisfy HFFACO and other applicable requirements.
4. DOE's revised PMP's shall consider and expressly evaluate any impacts on the types and capacity of facilities needed to address Hanford site TRU/TRUM retrieval, designation, treatment and processing capabilities that may result from the designation, treatment and/or processing at Hanford of off-site transuranic waste.
5. DOE's PMP's shall describe in detail the work to be done, all performance/regulatory standards and requirements to be met, and shall include an implementation schedule with start and completion dates and proposed interim milestones for major tasks and deliverables.
6. DOE's PMP's shall identify and support any assumptions made, and shall include or otherwise make available the information used to provide: 1) current and projected volumes and types of transuranic waste, 2) current retrieval, designation, treatment and processing capability, and 3) the plan(s) to acquire additional needed capacity.
7. HFFACO Modifications made by this Final Determination are made in recognition of the risks that DOE's TRU/TRUM pose to human health and the environment, in order to resolve the Parties' M-91 milestone dispute, and in order to aid DOE achievement of compliance with Federal and State Hazardous Waste Management requirements.
8. Pursuant to HFFACO Article VIII, paragraph 30(I), DOE shall perform and complete all work necessary to comply with the terms of this Final Determination.
9. DOE's revised TRU/TRUM PMP shall be consistent with the following HFFACO M-91 series milestones and milestone modifications, as hereby established on issuance of this Final Determination:

## II.

**The following HFFACO M-91 series milestones and target work requirement modifications for the management of Hanford site TRU/TRUM and MLLW are hereby established. Modifications to standing HFFACO requirements made by this Final Determination are indicated in the following by either shaded additions, or deletions shown as strikeouts.**

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<sup>42</sup> This includes, but is not limited to, newly generated TRU/TRUM and wastes required, or reasonably anticipated to be required to be retrieved from so-called pre-1970 disposal sites.

<p>M-91-00</p>	<p>COMPLETE THE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE, TREATMENT/PROCESSING, AND DISPOSAL OF ALL HANFORD SITE TRU/TRUM, LLMW, AND GTC3.</p> <p>COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-91 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-91 MAJOR AND INTERIM MILESTONE REQUIREMENTS.</p> <p>DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0</p> <p>* NEGOTIATION OF SCHEDULES FOR FACILITY MODIFICATION WHICH MAY BE NECESSARY FOR THE MANAGEMENT OF PRE 1970 TRU/TRUM WILL BE ESTABLISHED FOLLOWING THE ISSUANCE OF OPERABLE UNIT RECORDS OF DECISION (RODs).</p>	<p>TO BE DETERMINED*</p>
<p>M-91-01</p>	<p>COMPLETE THE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE, AND TREATMENT/PROCESSING PRIOR TO DISPOSAL OF ALL HANFORD SITE POST 1970 TRU/TRUM.</p> <p>** THE DATE FOR COMPLETION OF M-91-01 WILL BE DETERMINED AFTER REQUIRED TECHNOLOGY HAS BEEN DETERMINED THROUGH THE TRU/TRUM PMP, BUT WILL BE NO LATER THAN DECEMBER 2000.</p>	<p>TO BE ESTABLISHED                  ** (BUT NO LATER THAN 12/31/2000)</p> <p>6/30/2012</p>
<p>M-91-03</p>	<p>SUBMIT REVISIONS OF THE HANFORD SITE TRU/TRUM WASTE PROJECT MANAGEMENT PLAN (PMP) TO ECOLOGY PURSUANT TO, AND IN COMPLIANCE WITH THE REQUIREMENTS OF AGREEMENT SECTION 11.5 AND ECOLOGY'S MARCH 10, 2003 M-91 MILESTONE SERIES FINAL DETERMINATION. DOE PMP REVISIONS SHALL BE SUBMITTED ON 8/31/2003, 3/31/2009 AND 3/31/2013. EACH REVISION IS A DISTINCT WORK REQUIREMENT INDEPENDENTLY SUBJECT TO THE ENFORCEMENT PROVISIONS OF THE AGREEMENT.</p> <p>DOE'S PMP WILL BE SUBMITTED TO ECOLOGY FOR REVIEW AND APPROVAL AS A PRIMARY DOCUMENT PURSUANT TO AGREEMENT ACTION PLAN SECTION 9.2.1. DOE SHALL IMPLIMENT THE PLAN AS APPROVED.</p> <p>DOE'S 2003 PMP, ONCE APPROVED, WILL SUPERCEDE TRU/TRUM PMP'S PREVIOUSLY SUBMITTED.</p> <p>THE HANFORD SITE TRU/TRUM WASTE PMP WILL INCLUDE ALL PLAN ELEMENTS REQUIRED BY AGREEMENT ACTION PLAN SECTION 11.5- APPROVAL OF THE TRU/TRUM PMP AND ACCOMPANYING AGREEMENT</p>	<p>6/30/2000                  DUE DATES AS INDICATED IN THE DESCRIPTIVE TEXT OF THIS MILESTONE</p>

	<del>CHANGE REQUESTS WILL ESTABLISH ALL MAJOR PROJECT TASKS AND DELIVERABLES FOR TREATMENT/STORAGE OF HANFORD SITE TRU/TRUM INCLUDING COMMERCIAL SECTOR MANAGEMENT, MODIFICATION OF EXISTING FACILITIES, AND CONSTRUCTION OF NEW FACILITIES.</del>	
M-91-04	COMPLETE CONSTRUCTION OF SMALL CONTAINER CONTACT HANDLED (CH) TRU/TRUM RETRIEVAL FACILITY(S) AND INITIATE (PROJECT W-113) RETRIEVAL OF SMALL CONTAINER TRU/TRUM FROM 200 AREA BURIAL GROUNDS.  DURING INITIAL FACILITY OPERATIONS, CONTACT HANDLED SMALL CONTAINER INTEGRITY WILL BE EVALUATED AND DATA USED IN THE FURTHER DEVELOPMENT OF THE RETRIEVAL CAMPAIGN.	9/30/2000
M-91-05-T01	COMPLETE AND SUBMIT TRU/TRUM RETRIEVAL AND PROCESSING FACILITY ENGINEERING STUDY/FUNCTIONAL DESIGN CRITERIA STUDY TO ECOLOGY.  THE TRU/TRUM ENGINEERING/FUNCTIONAL DESIGN CRITERIA STUDY WILL COVER ACTIVITIES/FACILITIES NOT CONSIDERED COMMERCIALLY VIABLE AS DOCUMENTED IN THE APPROVED TRU/TRUM PMP AND ASSOCIATED AGREEMENT CHANGE REQUESTS.	12/31/2002
M-91-06-T01	AWARD NECESSARY PRIVATIZED CONTRACTS FOR PROCESSING REMOTE HANDLED (RH) AND LARGE SIZE TRU/TRUM.	9/30/2003
M-91-07	COMPLETE PROJECT W-113 FOR POST 1970 CH TRU/TRUM RETRIEVAL.	9/30/2004
M-91-08-T01	COMPLETE CONSTRUCTION AND INITIATE HOT OPERATIONS OF RH AND LARGE SIZE TRU/TRUM PROCESSING FACILITY (A FINAL ACQUISITION SCHEDULE FOR THIS FACILITY WILL BE ESTABLISHED AS AN INTERIM MILESTONE NO LATER THAN DECEMBER 2000).	6/30/2005
M-91-10	SUBMIT HANFORD SITE LLMW AND GREATER THAN CLASS C (GTC3) WASTE PROJECT MANAGEMENT PLAN (PMP) TO ECOLOGY PURSUANT TO AGREEMENT ACTION PLAN SECTION 11.5.	6/30/1999
M-91-12	COMPLETE THERMAL TREATMENT AND DISPOSAL OF AN ADDITIONAL 360 CUBIC METERS OF CONTACT HANDLED LLMW. THIS BRINGS THE CUMULATIVE TOTAL TO AT LEAST 600 CUBIC METERS OF CONTACT HANDLED LLMW THERMALLY TREATED AND DISPOSED OF.	12/31/2005
M-91-12A	COMPLETE THERMAL TREATMENT AND DISPOSAL OF AT LEAST 240 CUBIC METERS OF CONTACT HANDLED LLMW.	12/31/2004
M-91-14-T01	AWARD COMMERCIALIZATION CONTRACT(S) FOR TREATMENT OF RH AND LARGE SIZE LLMW PER APPROVED LLMW/GTC3 PMP AND ASSOCIATED AGREEMENT CHANGE REQUESTS.	10/31/2003
M-91-15	COMPLETE ACQUISITION OF FACILITIES AND INITIATE TREATMENT OF RH AND LARGE CONTAINER (CH) LLMW.	6/30/2008

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M-91-20	<p>T PLANT IS READY TO RECEIVE THE FIRST CANISTER OF K BASINS FLOOR AND PIT SLUDGE.</p> <p>THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL T PLANT READINESS ACTIVITIES HAVE BEEN COMPLETED TO ACCEPT PIT AND FLOOR SLUDGE. READINESS IS DEFINED AS THE ISSUANCE OF THE READINESS TO PROCEED LETTER BY THE APPROVAL AUTHORITY.</p>	12/31/2002
M-91-21-T01	<p>COMPLETE PHYSICAL ACTIVITIES AT NECESSARY TO STORE CANISTER AND FUEL WASH SLUDGE.</p> <p>THIS TARGET IS COMPLETE UPON THE DECLARATION OF COMPLETION OF MODIFICATIONS REQUIRED TO STORE CANISTER AND FUEL WASH SLUDGE IN T PLANT.</p>	11/29/2003
M-91-22	<p>T PLANT IS READY TO RECEIVE CANISTER AND FUEL WASH SLUDGE FROM K BASINS.</p> <p>THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL T PLANT READINESS ACTIVITIES HAVE BEEN COMPLETED TO ACCEPT CANISTER AND FUEL WASH SLUDGE. READINESS IS DEFINED AS THE ISSUANCE OF THE READINESS TO PROCEED LETTER BY THE APPROVAL AUTHORITY.</p>	

**Approved and issued this 10<sup>th</sup> day of March, 2003.**

[Signed 03/10/2003]  
Tom Fitzsimmons, Director  
Washington Department of Ecology