

Tri-Party Agreement



Agreement in Principle

Tentative Agreement on Hanford Federal Facility Agreement and Consent Order Negotiations for Solid Waste and Materials

In June of 1995, the U.S. Department of Energy (DOE), the State of Washington Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) agreed to enter into negotiations on matters relating to storage, processing and/or disposal of Hanford Site Solid Waste and Materials. This agreement was followed by the DOE's December 1995 submission of Hanford Federal Facility Agreement and Consent Order (commonly known as the Tri-Party Agreement) change requests as required by major milestone M-33-00.

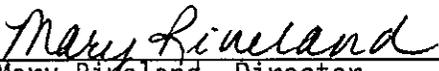
The nine solid waste and materials categories within the original scope of these negotiations were: immobilized high and low level tank waste, transuranic and transuranic mixed waste, low level mixed waste greater than class 3 (GTC 3), unirradiated uranium, cesium and strontium, sodium, 300 area special case waste and spent nuclear fuel. All of these categories are addressed in the enclosed tentative Agreement except for spent nuclear fuels (SNF). The parties agreed to remove SNF from the scope of negotiations, due to the need for further discussion related to the regulatory status of SNF.

Pursuant to milestone M-33-00 and the June 1995 agreement, the three parties have concluded solid waste and materials negotiations and have reached tentative agreement. A summary and a copy of this tentative agreement is attached.

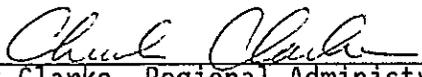
In accordance with the provisions of the Tri-Party Agreement, this tentative agreement will be submitted to the public for review and comment over a 45 day period. Copies of this agreement will be available for review at the public information repositories. Following the 45 day public comment period, the parties will make appropriate revisions before finalizing these changes. The parties anticipate final signatures to take place by September 1996. Prior to finalization, a response to comments document will be issued.

The parties further agree: (1) to further discussions between DOE and Ecology on potential applications of a critical path management process to a pilot Hanford project on which Ecology is the lead regulatory agency; and (2) to minimize additional delay in the event the parties fail to agree on any changes as the result of public comment, all unresolved matters shall be referred to the Tri-Party Agreement dispute resolution process beginning at the Inter Agency Management Integration Team (IAMIT) level as described in the Tri-Party Agreement. The parties shall attempt to resolve the dispute(s) as provided in the Tri-Party Agreement paragraph 30 and/or 59.

Signed this 28 day of June 1996



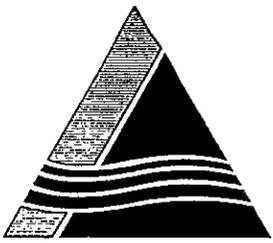
Mary Riveland, Director
State of Washington
Department of Ecology



Chuck Clarke, Regional Administrator
U.S. Environmental Protection Agency
Region X



John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office



COMMITMENTS FOR SOLID WASTE AND MATERIALS NEGOTIATION CONCLUSION AGREEMENT

In accordance with the requirements of Major Milestone M-33-00, the Agreement in Principle dated June 30, 1995, and an agreed extension of negotiations dated April 1, 1996 the State of Washington Department of Ecology and the U.S. Department of Energy have concluded negotiations on commitments for solid waste and materials at the Hanford Site. A Tentative Agreement has been reached and a package of changes to the Hanford Federal Facility Agreement and Consent Order (Agreement) has been developed and found mutually acceptable to the Parties. These changes are attached to this Negotiation Conclusion Agreement.

It is the Parties' intent to submit the Tentative Agreement for a 45 day public comment period to run from approximately July 15, 1996 to August 29, 1996. Final approval of the Agreement changes is expected to occur by September 30, 1996. After successful resolution of any resulting public comments, a response to comments document will be issued.

Contingent upon final approval of the Tentative Agreement by the Signatories, and consideration and resolution of any resulting public comments, it is the Parties' intent to approve these changes and incorporate them into the Agreement.

Roger Stanley JUNE 14, 1996
Roger Stanley Date

James E Rasmussen 6/14/96
James Rasmussen Date

Moses Jaraysi 6/14/96
Moses Jaraysi Date

Director, Environmental Assurance,
Permits, and Policy
U.S. Department of Energy

Lead Negotiators for the
State of Washington
Department of Ecology

Change Number L-96-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date DRAFT June 14, 1996
Originator Ecology/DOE		Phone
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title <u>Hanford Federal Facility Agreement and Consent Order (Agreement) modifications pursuant to milestone M-33-00 negotiations, a subsequent Agreement In Principle dated June 30, 1995, and the establishment of new major milestone series', M-90-00, M-91-00, and M-92-00.</u>		
Description/Justification of Change Agreement modifications made here reflect the Parties recognition that effective management of Hanford cleanup and waste and materials management demands a fully coordinated approach (See milestone M-33-00). In addition, these changes have been developed pursuant to the Parties recognition that a number of Hanford site special nuclear materials may no longer be needed for their original purposes and have no clearly identified future use. Specific waste/materials project management milestones are established under new major milestones M-90-00, M-91-00, and M-92-00. These (L-96-01) Agreement modifications document corresponding changes being made to Agreement "legal provisions" (modified Article XI, and new Article XLIX), and Action Plan (revised sections 4.0, 9.0 and 11.0).		
Impact of Change Approval of this change request by the Parties modifies Agreement "legal provisions" by modifying Article XI, and by establishing new Article XLIX (Inclusion of Nonregulated Nuclear Materials). Approval of this change request by the Parties also modifies Agreement Action Plan Sections 4.0, 9.0 and 11.0. On approval, Hanford site planning and budget development documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans) will be modified accordingly.		
Affected Documents <u>Hanford Federal Facility Agreement and Consent Order, as amended by its Sixth Amendment, February 1996, Hanford site internal planning and budget documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans).</u>		
Approvals		
_____ DOE	_____ Date	___ Approved ___ Disapproved
_____ EPA	_____ Date	___ Approved ___ Disapproved
_____ Ecology	_____ Date	___ Approved ___ Disapproved

The following modifications are made to Parts Two and Five of the Hanford Federal Facility Agreement and Consent Order (Agreement). Additions to existing Agreement language are shown as shaded, deletions are shown as strikeouts:

Part Two:

ARTICLE XI. SCHEDULE

42. A. Tank waste remediation system milestones will be established in accordance with section ~~11.7~~ 11.8 of the Action Plan.

B. Except as provided above, specific major and interim milestones, as agreed to by the Parties, are set forth in the Action Plan.

Part Five

ARTICLE XLIX: INCLUSION OF NONREGULATED NUCLEAR MATERIALS

154. The Parties recognize that with the close of the cold war the DOE is reassessing current management practices to ensure sound management and compliance with applicable requirements of a wide range of nuclear materials and chemicals nationwide. Many of these materials in inventory, such as surplus nuclear materials, may no longer be needed for their original purposes and have no clearly identified future use. This recognition, coupled with the Parties recognition that effective management of all Hanford cleanup and waste management activities demands a fully coordinated approach (See Agreement milestone M-33-00), has resulted in agreement to include management of nuclear materials that are not currently regulated under RCRA or CERCLA (nonregulated nuclear materials) within this Agreement.

155. Target dates pertaining to nonregulated nuclear materials are identified within this Agreement by the prefix "MX", e.g., MX-00-00T. Inclusion and management of such nonregulated nuclear materials shall be pursuant to Section 12 of the Action Plan. The Parties recognize and agree that inclusion in this Agreement of target dates pertaining to management of nonregulated nuclear materials confers no regulatory authority over these materials to Ecology or EPA. The Parties recognize and agree however, that work schedules associated with non regulated nuclear materials may impact DOE's ability to comply with the requirements of this Agreement. DOE agrees that delays in nonregulated nuclear material(s) projects will not excuse or constitute a defense with regard to any failure to comply with regulated Agreement activities (e.g., milestones).

Article ~~II~~ XLIX COMPLIANCE WITH APPLICABLE LAWS

156 ~~154.~~ All actions to be taken pursuant to this agreement shall be taken in accordance with the requirements of all applicable federal and state laws and regulations. All Parties acknowledge that such compliance may impact schedules to be performed under this Agreement. Extensions of schedules shall be provided in accordance with Article XL (Extensions).

157 ~~155.~~ In any judicial challenge arising under this Agreement the court shall apply the law in effect at the time of the challenge, including any amendments to RCRA and CERCLA enacted after entry of this agreement. Where the law governing this agreement has been amended or clarified, any provision of this agreement which is inconsistent with such amendment or clarification shall be modified to conform to such change or clarification.

ARTICLE ~~III~~ ~~4~~ EFFECTIVE DATE

~~158~~ ~~156~~. This Agreement is effective upon signature by all Parties.

ARTICLE ~~III~~ ~~4~~ ATTACHMENT 1

Attachment 1 to this Agreement is a letter dated February 26, 1989, from Donald Carr, Acting Assistant Attorney General, Land and Natural Resources Division, U.S. Department of Justice, to Christine Gregoire, Director, Department of Ecology. This letter sets forth the Department of Justice's position on the enforceability of this Agreement.

The following modifications are made to Sections 4.0 and 11.0 of the Action Plan of the Hanford Federal Facility Agreement and Consent Order (Agreement). Additions to existing Agreement language are shown as shaded, deletions are shown as strikeouts.

Section 4.0

4.0 AGREEMENT MANAGEMENT

4.1 PROJECT MANAGER ROLE

The DOE and the lead regulatory agency(ies) (see Section 5.6 for discussion of lead regulatory agency) shall each designate an individual as a project manager for each operable unit, TSD group/unit or specific milestone to be completed under this Agreement. Project managers will only be identified for those areas where effort is ongoing or planned in the near future; A listing of currently assigned project managers shall be maintained and distributed to all Parties by the DOE. Each project manager shall represent his/her respective party and keep his/her agency informed on the status and any problems that arise.

Project managers from each party must have experience and capabilities necessary to carry out their assigned responsibilities. The lead regulatory agency(ies) will assign a project manager with the experience and capability to provide all the routine regulatory oversight necessary for DOE's successful completion of the assigned milestone. DOE will assign a project manager with the experience and capability to manage the project, to oversee the actions of contractor staff, and to maintain regulatory compliance necessary to the completion of the milestone. The project manager from the lead regulatory agency (see Section 5.6 for discussion of lead regulatory agency) shall be responsible for regulatory oversight of all activities required by this action plan for completion of that milestone.

The primary responsibilities of the project managers are to implement the scope, terms, and conditions of the Agreement, direct and provide guidance to their respective contractors and staff, maintain effective communication among each other, and report status to their respective management.

Subject to the limitations set forth in Article XXXVII (Access) of the Agreement and, in addition to other authorities and responsibilities, the Ecology and EPA project managers, or their designated representative(s), shall have the authority to: (1) notify and/or take issue compliance actions deemed necessary should DOE and/or its contractors fail to comply with Agreement terms, (2) take samples, request split samples of the DOE samples, and ensure that work is performed properly and pursuant to the EPA protocols as well as pursuant to the attachments and plans incorporated into this Agreement; (3)

observe all activities performed pursuant to this Agreement, take photographs, and make sure other reports are prepared on the progress of the work as the project manager deems appropriate; and (4) review records, files, and documents relevant to this Agreement. In addition, the project manager for the lead regulatory agency has authority to require changes to any procedural, design, or specification document that is referenced in a supporting work plan. Such required changes will be subject to the appropriate dispute resolution process as specified in the Agreement.

The DOE project managers or their representatives shall be physically present on the Hanford Site or reasonable available to supervise work performed at the Hanford site during the performance of work performed pursuant to this Agreement and shall be available to the EPA and Ecology project manager for the pendency of this Agreement.

Other authorities and responsibilities are identified in the context of this action plan. The project managers may delegate their authority and responsibilities with notice to the other effected party(ies).

Project managers for DOE and the lead regulatory agency shall meet to discuss progress (including the status of all key project tasks), address issues, and review near term plans pertaining to their respective projects, milestones, operable units and/or TSD groups/units. For TSD groups and operable units, meetings shall be held monthly, unless the project managers agree that a meeting is not appropriate. The assigned DOE project manager shall provide current work schedule information including project task element schedule status and associated "float" (defined as the projected number of days until a task becomes critical path), marked up the appropriate schedules from the RI/FS work plan, closure plan, etc., and/or appropriate detailed near term schedules prior to the meeting. The schedules shall address all ongoing activities associated with the milestones, operable unit or separate TSD groups/units, to include actions on specific units (e.g., sampling). These schedules will be provided to all parties and reviewed at the meeting. Any agreement and commitments (within the project managers level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE project manager summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments
- Any new agreements and commitments
- Schedules (with current status noted)
- Any approved changes signed off at the meeting in accordance with section 12.2

In the event that the lead regulatory agency project manager forms an opinion that DOE actions or failure to act, jeopardizes completion of an Agreement milestone, they shall notify DOE of that fact in a timely manner. Such notification shall be in writing and shall provide the project manager's detailed rationale for the opinion. On receipt, DOE's project manager will reply in writing within 15 working days. Such reply will either assure that compliance is intact and that DOE's ability to meet Agreement milestones has not been unduly jeopardized, or will describe in detail, expected impact(s), causative factors, and action(s) DOE has/is taking in response.

Section 9.0

Table 9-1. Primary Documents

Waste/Material Stream Project Management (Work) Plans (see Action Plan Section 11.5).
(To be added to Table 9-1 of the Tri-Party Agreement.)

Section 11.0

11.0 WORK SCHEDULE AND OTHER WORK PLANS, AND ASSOCIATED REPORTS

11.1 INTRODUCTION

This section describes the format and content of the work schedule, supporting plans and reports, and the process for annual updates and other revisions. In addition, this section also identifies those primary documents that contain other schedules that directly support the work schedule.

The work schedule is contained in Appendix D. It includes the major and interim milestones and additional associated target dates that support the accomplishment of the major milestones described in Section 2.0. Both major and interim milestones are considered enforceable under the Agreement. Dates specified as target dates are incorporated in the work schedule for the purpose of tracking progress toward meeting milestones, and are not enforceable. Work plans and reports will specify additional target dates and milestones. Plans and reports prepared in support of Appendix D (milestone) requirements will specify more detailed work elements and interfaces between Hanford site programs and projects over time. (See Sections 11.4 through 11.7).

Milestones and target dates will be incorporated into the Agreement via the change process defined in Section 12.0 upon issuance of the approved work plan (including Project Management (Work) Plan) or report, and incorporated into the work schedule as part of the revision update process. The work schedule will indicate actions required within each major milestone heading, and at each operable unit identified in Appendix C, or TSD group identified in Appendix B. Such actions include, but are not limited to, the following:

- Permitting activities
- Closures
- Groundwater monitoring
- Achieving compliance with interim status requirements
- Ceasing disposal of contaminated liquids to the soil column
- Investigations and characterization
- Remedial and corrective actions
- Technology improvements
- Acquisition of New new facilities, and/or modification of facilities as necessary, e.g., to enhance operations and eliminate long-term storage
- Land disposal restriction requirements

11.2 WORK SCHEDULE

A listing of major and interim milestones and associated target dates, current as of the last Agreement update, is provided in Appendix D.

11.3 WORK SCHEDULE UPDATES

The work schedule will be updated as necessary in order that printed copies of the Agreement remain reasonably current periodically. In addition, any approved work schedule changes (see Section 12.0 for formal change control system) will be incorporated at this time if not previously incorporated. Each update will be performed as agreed by the three parties.

The work schedule may also be updated for clarity consistent with to incorporate previously approved changes made in accordance with Section 12.2. Such updates do not require approval signatures and are not subject to the public comment process.

11.4 DOE MULTI YEAR WORK PLANS AND SYSTEMS ENGINEERING CONTROL DOCUMENTS

Unless otherwise agreed to by the Parties, DOE Multi Year Work Plans (MYWP) and sitewide systems engineering control documents, shall be consistent with this Agreement, e.g., such plans and documents shall describe work necessary to maintain or achieve compliance with the RCRA, CERCLA, and the requirements of this Agreement. At the time such plans/control documents are submitted they shall describe in detail work to be done, e.g., project start and completion dates, interfaces between programs and projects, and performance standards to be met. Such plans/control documents shall include a DOE determination that they are consistent with the requirements of this Agreement.

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-90-00, M-91-00 and M-92-00, 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 (non-regulated nuclear materials are identified with the milestone prefix "MX", and are established pursuant to Article XLIX, and paragraph 155). 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-90-00, M-91-00, and M-92-00, 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 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 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 and 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. With the exception of Tank Waste Remediation System (TWRS) projects governed by Section 11.8 of this Agreement, 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.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on project schedules (e.g., reported progress and critical path analysis) for tracking purposes.

~~11.4~~ ~~11.6~~ OTHER WORK PLANS AND SUPPORTING SCHEDULES

Unless otherwise specified, other workplans, including those operable unit (OU) workplans prepared under the Hanford Past-Practice Investigation Strategy, shall be prepared, reviewed and approved as primary documents. At the time work plans are submitted for approval they shall describe in detail the work to be done and include the performance standards to be met. They shall also include an implementation schedule with start and completion dates. The work plan schedule 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. A change package shall be submitted with the work plan which identifies the interim milestones.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review and approval to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on the supporting schedules for tracking progress.

Required work plans include:

- RI/FS work plan
- Remedial action work plan
- Closure plan
- RFI/CMS work plan
- CMI plan
- LFI work plan
- ERA work plans/EECA's.

These ERA work plans/EECA's are not to be prepared, reviewed and approved as primary documents, but are subject to approval in accordance with Section 7.2.4 of the Action Plan. Additional detailed schedules, beyond those contained in the above plans, may be needed as agreed to by the assigned project managers to provide more definitive schedules to track progress. These may be part of other plans or may be stand-alone schedules.

~~11.5~~ OTHER WORK PLANS

In addition to the work plans previously described, other work plans may be developed for special situations at the request of the lead regulatory agency. These work plans will be considered primary documents as discussed in Section 9.1, and are subject to all work plan requirements, including those identified above in Section 11.4.

~~11.6~~ ~~11.7~~ SUPPORTING TECHNICAL PLANS AND PROCEDURES

In addition to the requirements as specified in this Agreement, supporting technical plans and procedures may be developed by DOE. They will be reviewed for approval by EPA and Ecology as primary documents or reviewed as secondary documents as determined by EPA and Ecology. In the event that such supporting technical plans and procedures apply only to a specific operable unit, ~~project~~ TSD group/unit or milestone the lead regulatory agency will provide the necessary review and approval. The DOE may submit such plans or procedures at any time, without request of the regulatory agencies. The EPA or Ecology may also request that specific plans or procedures be developed or modified by DOE, consistent with Article XXX of the Agreement. These technical plans and procedures shall pertain to specific compliance and cleanup activities conducted pursuant to this Agreement and shall provide a detailed description of how certain requirements will be implemented at the Hanford Site. DOE shall comply with the most recent approved versions of these technical plans and procedures and those secondary documents which are in effect.

Appendix F contains a listing of current supporting technical plans and procedures and their respective status. Changes to Appendix F will be accomplished in accordance with Section 12.0. Appendix F will be updated annually in conjunction with the annual update to the Work Schedule.

~~11.7~~ ~~11.8~~ TANK WASTE REMEDIATION SYSTEM CRITICAL PATH PROCESS

Tank waste remediation milestones will be established using a critical path process as described in this section. The tank waste remediation program will be established and managed as an integrated system and shall include all activities associated with waste characterization, retrieval/closure, tank stabilization, pretreatment, treatment of high-level and low-level tank waste, acquisition of new tanks, and the multi-purpose storage complex. The parties will develop detailed operating procedures and implement the critical path milestone system on a trial basis, in April 1994, with full implementation by September 30, 1994.

- A. For the purposes of critical path analysis, negotiated dates for completion of single-shell tank waste retrieval, the final closure of single-shell tank farms, and completion of all high-level and low-level tank waste treatment shall be designated as program endpoints and shall be major milestones.
- B. Activities and associated schedules for this program shall be included in the Site Management System (SMS). All activities, milestones, and target dates necessary for tracking the program will be negotiated for inclusion in this Agreement. Activity definition will be based generally on SMS Level 0 schedules, but may in some instances include SMS Level 1. Based on a critical path analysis, any event appearing on the critical path shall be designated as either a major or an interim milestone. Any event not on the critical path shall be designated a target date.
- C. On a semi-annual basis, the integrated schedule shall be updated by the project managers or their designees and the critical path shall be re-evaluated. Updates shall be based on current Site Management System (SMS) information. Additional events falling on the critical path shall be designated as interim milestones. The integrated management schedule shall identify schedule float for each task. Schedule float shall be defined as the amount of time available before an activity becomes a critical path activity. Any activity found to be no longer on the critical path shall revert to target date status.
- D. The Department of Energy shall have the ability to reschedule any activity associated with a target date as necessary to efficiently manage the project, provided such movement shall not adversely affect the critical path or the

program endpoints. Project managers shall be advised in advance in writing of any such changes.

- E. Changes to any activity or schedule which affects the critical path, a major or interim milestone, or program endpoints must be requested in accordance with Section 12.0 of the Action Plan.
- F. Based on the information in the monthly SMS report, the Department of Energy shall take all appropriate actions to correct schedule slips in critical path activities.

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Change Number <p style="text-align: center;">M-90-96-01</p>	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date DRAFT June 14, 1996
Originator Ecology/DOE	Phone	
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title Creation of new Major milestone M-90-00 and its sub-elements governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, and/or disposal of treated and immobilized tank wastes ¹ .		
Description/Justification of Change Agreement Milestone M-33-00 was established to: (1) prompt the development of milestones necessary for the storage, treatment/processing, and disposal of Hanford site solid wastes and hazardous materials not yet covered under the <u>Hanford Federal Facility Agreement and Consent Order</u> (Agreement), and (2) prompt the development and incorporation of Agreement modifications designed to aid in achieving integrated management of all aspects of Hanford site "cleanup" (including but not limited to waste and materials management, remedial action, and site closure).		
Impact of Change These M-90-96-01 agreements are made in partial fulfillment of Land Disposal Restriction (LDR) treatment requirements of Agreement milestone M-26-00 (which constitutes an existing Agreement or Order for treatment of mixed waste for purposes of the Federal Facilities Compliance Act of 1992 (FFCA)), and as companion documentation to Land Disposal Restriction (LDR) documents submitted by DOE pursuant to Agreement milestone M-26-00. The Parties recognize and agree to establishment of additional schedules and milestones for completion of facility acquisition and for completion of treatment and disposal processes, as adequate information becomes available as determined by the lead regulatory agency or DOE. Approval of this change request by the Parties establishes a new major milestone, and associated interim milestones and target dates governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for: (1) the interim storage of Tank Waste Remediation System (TWRS) Immobilized High-Level Tank Waste (IHLW) and other canistered high level waste forms, and (2) for the interim storage and disposal of TWRS Immobilized Low-Activity Tank Waste (ILAW). On approval, Hanford site planning and budget development documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans) will be modified accordingly.		
Affected Documents <u>Hanford Federal Facility Agreement and Consent Order</u> , as amended by its Sixth Amendment, February 1996, Hanford site internal planning and budget documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans).		
Approvals		
_____ DOE	_____ Date	___ Approved ___ Disapproved
_____ EPA	_____ Date	___ Approved ___ Disapproved
_____ Ecology	_____ Date	___ Approved ___ Disapproved

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This M-90-00 milestone covers those aspects of the Hanford Tank Waste Remediation System not within the scope of Agreement major milestones: M-20 (with the exceptions noted here), M-32, M-40, M-41, M-42, M-43, M-44, M-45, M-46, M-50, M-51, M-60, and M-61.

To meet these objectives the Parties have negotiated Agreement modifications under change request numbers L-96-01, M-90-96-01, M-91-96-01, and M-92-96-01.

This M-90-96-01 change request establishes a new major milestone (M-90-00 and its sub-elements) governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the interim storage of TWRS IHLW and other canistered high level waste forms, and for interim storage and disposal of TWRS ILAW. ILAW and IHLW Project Management Plans (PMP) described here have been agreed to based on the Parties recognition that milestones established by this M-90-96-01 change request will remain as constraints on PMP design and management of the project(s) themselves.

Major and interim milestones, and associated target dates established by approval of this change request are as follows:

M-90-00	Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities as necessary for storage of Hanford site IHLW and ILAW, and disposal of ILAW.	TBE (6 months after approval of PMP)
M-90-01	Submit interim storage and disposal ILAW, and interim storage IHLW Project Management Plans (PMP) to Ecology pursuant to Agreement section 11.5.	December 1997
	The Hanford Site Immobilized Tank Waste PMPs will include all plan elements required by Agreement Action Plan section 11.5. They will also summarize results to date of the interim ILAW disposal facility Performance Assessment.	
M-90-02T	Complete ILAW interim storage facility conceptual design.	June 1998
M-90-03	Initiate ILAW interim storage facility construction.	June 2001
	Initiation of construction occurs when DOE or its contractors (as authorized) issues an Approval to Start Construction, and structural modification of an existing facility, or installation of structural components of a new facility commences.	
M-90-04T	Complete ILAW interim storage facility detailed design	June 2001
M-90-05T	Submit final ILAW disposal facility Performance Assessment to Ecology for review.	December 2001
M-90-06	Initiate hot operations of ILAW interim storage facility.	December 2002 ²
M-90-07T	Complete ILAW disposal facility conceptual design.	June 2000
M-90-08	Initiate ILAW disposal facility construction.	June 2003
	Initiation of construction occurs when DOE or its contractor (as authorized) issues an Approval to Start Construction, and modification of an existing facility, or installation of structural components of a new facility commences.	
M-90-09T	Complete ILAW disposal facility detailed design.	March 2003

- M-90-10 Initiate hot operations of ILAW disposal facility. December 2005³
M-90-11 Complete canister storage facility construction. December 2002

Completion of this milestone requires the completion of all construction, internal/external facility(s) modifications and startup activities necessary for canister storage facility receipt of all phase I Hanford Site High Level Waste canisters from Tank Waste Remediation System (TWRS) processing. For purposes of this interim milestones phase I IHLW canister storage is defined as the capability for storage of at least 500 IHLW canisters. Interim milestones and associated target dates establishing work schedules for phase II IHLW canister storage will be established pursuant to the phase II Request for Proposal for TWRS privatization.

- M-90-12 Submit revised canister storage facility Part A Dangerous Waste Permit application to Ecology pursuant to chapter 173-303 WAC. June 1999

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3. Low Activity Waste units placed within these facilities will be designed so as to be retrievable if necessary.

Change Number M-91-96-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date DRAFT June 14, 1996
Originator Ecology/DOE		Phone
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title Creation of new Major milestone M-91-96-01 and its sub-elements governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, processing, and disposal of Hanford site Transuranic and Transuranic Mixed Waste (TRU/TRUM), Low Level Mixed Waste (LLMW), and Greater than Category 3 (GTC3) Low Level Waste (LLW) ¹ and LLMW ² .		
Description/Justification of Change (See page 2)		
Impact of Change These M-91-96-01 agreements are made in partial fulfillment of Land Disposal Restriction (LDR) treatment requirements of Agreement milestone M-26-00 (which constitutes an existing Agreement or Order for treatment of mixed waste for purposes of the Federal Facilities Compliance Act of 1992 (FFCA)), and as companion documentation to Land Disposal Restriction (LDR) documents submitted by DOE pursuant to Agreement milestone M-26-00. The Parties recognize and agree to establishment of additional schedules and milestones for completion of facility acquisition and for completion of treatment and disposal processes, as adequate information becomes available as determined by the lead regulatory agency or DOE. Approval of this change request by the Parties establishes a new major milestone, and associated interim milestones, and target dates governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, processing, and disposal of Hanford site TRU/TRUM, LLMW, and GTC3. On approval, Hanford site planning and budget development documents (e.g., Sitewide System Engineering control documents, Project Management Plans and Multi Year Work Plans) will be modified accordingly.		
Affected Documents <u>Hanford Federal Facility Agreement and Consent Order, Sixth Amendment, February 1996</u> (including Table D and Action Plan Work schedules), Hanford site internal planning and budget documents (e.g., Sitewide System Engineering control documents, Project Management Plans and Multi Year Work Plans).		
Approvals _____ Date _____ ___ Approved ___ Disapproved DOE		
_____ Date _____ ___ Approved ___ Disapproved EPA		
_____ Date _____ ___ Approved ___ Disapproved Ecology		

1 This milestone refers only to storage in the instance of GTC3 LLW.

2 This M-91-00 milestone covers those aspects of the Hanford site not within the scope of Agreement milestones: M-18, M-19, and M-20 (with the exception of those M-20 interim milestones noted here).

Agreement Milestone M-33-00 was established to: (1) prompt the development of milestones necessary for the storage, treatment/processing, and disposal of Hanford site solid wastes and hazardous materials not yet covered under the Hanford Federal Facility Agreement and Consent Order (Agreement), and (2) prompt the development and incorporation of Agreement modifications designed to aid in achieving integrated management of all aspects of Hanford site "cleanup" (including but not limited to waste and materials management, remedial action, and site closure).

To meet these objectives the Parties have negotiated Agreement modifications under change request numbers L-96-01, M-90-96-01, M-91-96-01, and M-92-96-01.

This M-91-96-01 change request establishes a new major milestone (M-91-00 and its sub-elements) governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, processing, and disposal of Hanford site TRU/TRUM, LLMW, and GTC3. TRU/TRUM, LLMW, and GTC3 Project Management Plans (PMP) described here have been agreed to based on the Parties' recognition that milestones established by this M-91-96-01 change request will remain as constraints on PMP design and management of the project(s) overall.

Major and interim milestones, and associated target dates established by approval of this change request are as follows:

Milestone	Description	Date
M-91-00	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. <u>TRANSURANIC AND TRANSURANIC MIXED WASTE</u>	TBD ³
M-91-01	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.	TBE (By December 2000) ⁴
M-91-02	Initiate processing of contact handled TRU/TRUM waste at Waste Receiving and Processing Facility/ WRAP1 (contact handled, small container).	December 1998
M-91-03	Submit Hanford Site TRU/TRUM Waste Project Management Plan (PMP) to Ecology pursuant to Agreement section 11.5. 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.	June 2000

3 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).

4 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.

- 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. September 2000
- During initial facility operations, contact handled, small container integrity will be evaluated and data used in the further development of the retrieval campaign.
- M-91-05T Complete and submit TRU/TRUM retrieval and processing facility Engineering Study/Functional Design Criteria Study to Ecology. December 2002
- 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.
- M-91-06T Award necessary privatized contracts for processing Remote Handled (RH) and Large Size TRU/TRUM. September 2003
- M-91-07 Complete Project W-113 for Post 1970 CH TRU/TRUM retrieval. September 2004
- M-91-08T 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). June 2005

LOW LEVEL MIXED WASTE

- M-91-09 Initiate operations at new Central Waste Complex storage facilities (Project W-112). June 1997
- 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. June 1999
- The Hanford Site LLMW/GTC3 PMP will include all plan elements required by Agreement Action Plan section 11.5. Approval of the LLMW/GTC3 PMP and accompanying Agreement change requests will establish all major tasks and deliverables for treatment/storage/disposal of Hanford RH and large container CH LLMW, and storage of GTC3 waste including commercial sector management activities, construction of new facilities, and modification of existing facilities.
- M-91-11T Complete and submit LLMW treatment facility Engineering Study/Functional Design Criteria Study to Ecology. December 2000
- The LLMW treatment facility Engineering Study/Functional Design Criteria Study will cover activities/facilities not considered commercially viable as documented in the approved LLMW/GTC3 PMP and associated Agreement change requests.

- | | | |
|----------|--|---------------|
| M-91-12 | Initiate thermal treatment of currently stored and newly generated CH LLMW. At least 600 cubic meters will be provided for treatment by December 2005. | December 2000 |
| M-91-13 | Initiate disposal of CH LLMW. | June 2001 |
| M-91-14T | Award commercialization contract(s) for treatment of RH and Large Size LLMW per approved LLMW/GTC3 PMP and associated Agreement change requests. | October 2003 |
| M-91-15 | Complete acquisition of facilities and initiate treatment of RH and large container (CH) LLMW. | June 2008 |

Change Number
M-92-96-01

Federal Facility Agreement and Consent Order
Change Control Form

Date
DRAFT
June 14, 1996

Do not use blue ink. Type or print using black ink.

Originator
Ecology/DOE

Phone

Class of Change

I - Signatories

II - Executive Manager

III - Project Manager

Change Title

Creation of new Major milestone M-92-00 and its sub-elements governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, treatment/processing, and disposal of Hanford site Cesium and Strontium capsules (Cs/Sr), Unirradiated Uranium (UU), Bulk Sodium (Na), and 300 Area Special Case Waste (SCW).

Description/Justification of Change

Agreement Milestone M-33-00 was established to: (1) prompt the development of milestones necessary for the storage, treatment/processing and disposal of Hanford site solid wastes and hazardous materials not yet covered under the Hanford Federal Facility Agreement and Consent Order (Agreement), and (2) prompt the development and incorporation of Agreement modifications designed to aid in achieving integrated management of all aspects of Hanford site "cleanup" (including but not limited to waste and materials management, remedial action, and site closure).

Impact of Change

These M-92-96-01 agreements are made in partial fulfillment of Land Disposal Restriction (LDR) treatment requirements of Agreement milestone M-26-00 (which constitutes an existing Agreement or Order for treatment of mixed waste for purposes of the Federal Facilities Compliance Act of 1992 (FFCA)), and as companion documentation to Land Disposal Restriction (LDR) documents submitted by DOE pursuant to Agreement milestone M-26-00. The Parties recognize and agree to establishment of additional schedules and milestones for completion of facility acquisition and for completion of treatment and disposal processes, as adequate information becomes available as determined by the lead regulatory agency or DOE.

Approval of this change request by the Parties establishes a new major milestone, and associated interim milestones and target dates governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities for the storage, treatment/processing, and disposal of Hanford site Cesium and Strontium capsules (Cs/Sr), Unirradiated Uranium (UU), Bulk Sodium (Na), and 300 Area Special Case Waste (SCW). On approval, Hanford site planning and budget development documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans) will be modified accordingly.

Affected Documents

Hanford Federal Facility Agreement and Consent Order, as amended by its Sixth Amendment, February 1996), Hanford site internal planning and budget documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans).

Approvals

_____	_____	___ Approved	___ Disapproved
DOE	Date		
_____	_____	___ Approved	___ Disapproved
EPA	Date		
_____	_____	___ Approved	___ Disapproved
Ecology	Date		

To meet these objectives the Parties have negotiated Agreement modifications under change request numbers L-96-01, M-90-96-01, M-91-96-01, and M-92-96-01.

This M-92-96-01 change request establishes a new major milestone (M-92-00 and its sub-elements) governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, treatment/processing, and disposal of Hanford site Cesium and Strontium capsules (Cs/Sr), Unirradiated Uranium (UU), Bulk Sodium (Na), and 300 Area Special Case Waste (SCW). Cs/Sr, Na, and SCW Project Management Plans (PMP) described here have been agreed to based on the Parties recognition that milestones established by this M-92-96-01 change request will remain as constraints on PMP design and management of the projects themselves. It is also noted that in the instance of Hanford site Cs/Sr capsules (see milestones M-92-01 through M-92-05) such capsules would not be solid wastes when they can be shown to be recycled by being used or reused as effective substitutes for commercial products as provided in chapter 173.303.017 WAC.

Major and interim milestones, and associated target dates established by approval of this change request are as follows:

M-92-00	Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, treatment/processing, and disposal of Hanford site Cesium and Strontium capsules (Cs/Sr), bulk Sodium (Na), and 300 Area Special Case Waste (SCW).	TBE (by October 1998)
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CESIUM AND STRONTIUM CAPSULES (Cs/Sr)

M-92-01	Complete commercial disposition and/or acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for sitewide consolidation, and storage prior to commercial use, or treatment and/or repackaging by DOE TWRS.	December 2009
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Completion of this milestone requires the completion of commercial disposition and/or all construction, internal/external facility(s) modifications, and startup activities necessary for the treatment /processing, repackaging (if necessary), and storage of Cs/Sr (to include unencapsulated salts) located at the: (1) ARECO facility in Lynchberg VA (25 capsules), (2) Hanford 300 Area (13 capsules at the 327 pool facility and excess Cs/Sr salts at the 324 facility), and (3) Hanford Waste Encapsulation and Storage Facility (WESF) in the 200 East Area.

M-92-02 Submit Hanford Site Cs/Sr Project Management Plan (PMP) to Ecology pursuant to Agreement Action Plan section 11.5. September 1997

The Hanford Site Cs/Sr PMP will include all plan elements required by Agreement Action Plan section 11.5 (to include a final feasibility evaluation and determination regarding vitrification of 300 Area Cs/Sr at the 324 melter). Approval of the Cs/Sr PMP and accompanying Agreement change requests will establish all major project tasks and deliverables for treatment, storage, disposal of Hanford Cs/Sr including commercial sector management activities, modification of existing facilities, and/or construction of new facilities.

M-92-03 Submit modified Hanford facility Part A permit application to Ecology incorporating all Hanford site Cs/Sr capsules (300 Area and unencapsulated salts) for which a commercialization contract has not been executed. December 1997

M-92-04 Complete transfer of all 300 Area Cs/Sr to WESF and/or an approved storage location. December 1998

M-92-05 Inclusion of Hanford site Cs/Sr "treatment and/or repackaging parameters" in DOE TWRS phase II Request For Proposals (treatment and/or repackaging of all remaining Cs/Sr). June 2003

UNIRRADIATED URANIUM

MX-92-06T Complete commercial disposition and/or the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal/disposition of all Hanford site UU. December 2000

This target date includes all UU located in 300 Area Fuel Supply Facilities (Uranium dioxide powder and pellets stored in cans, pins, assemblies, and drums), Uranium Trioxide (UO3) powder stored in T-hoppers adjacent to the U Plant, depleted UO3 stored in 55 gallon drums in the 200 West Area and the 4713 building.

MX-92-07T Submit Hanford Site UU Project Management Plan (PMP) to Ecology pursuant to Agreement Action Plan section 11.5. December 1997

The UU PMP and accompanying Agreement change requests will establish all major project tasks and deliverables for treatment, storage, disposal of Hanford UU including sale or commercial sector management activities, modification of existing facilities, and/or construction of new facilities.

MX-92-08T Submit Hanford site UU Disposition Assessment Report. June 1998

The Hanford Site UU Disposition Assessment Report shall include a facility needs assessment should UU treatment, repackaging, and/or consolidation be necessary. This report shall also include an assessment of expected impacts on other Agreement projects.

SODIUM

M-92-09 Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of Hanford site sodium. TBE (by October 1998)

M-92-10 Submit Hanford Site Sodium Project Management Plan (PMP) to Ecology pursuant to Agreement Action Plan section 11.5. October 1998

The Hanford Site Sodium PMP will include all plan elements required by Agreement Action Plan section 11.5.

Should DOE determine (pursuant to the Hanford Site Sodium PMP and Agreement interim milestone M-50-03) that TWRS use of Hanford Site radioactive sodium (FFTF, Hallam & Sodium Reaction Experiment) is warranted, it shall specify in its TWRS, High Level Waste Vitrification Plant Request For Proposal(s) that use of Hanford site radioactive sodium is a requirement.

Should the Hanford Site PMP and findings pursuant to Agreement interim milestone M-50-03 determine that TWRS use of Hanford site radioactive sodium is not warranted DOE shall issue accompanying proposed Agreement change requests for alternate Hanford Site radioactive sodium disposition (e.g., necessary milestones and target dates associated with the construction of the sodium reaction facility). See also Agreement target date M-81-02-T01.

MX-92-11T Complete disposition options for all Hanford non-radioactive sodium. March 2002

	Associated interim milestones and/or target dates established under other Agreement major milestones.	
M-81-02-T01 (Revised)	Submit Final Sodium Disposition Evaluation Report/ Decision Point	June 1998
From TPA Amendment V	Under this target DOE will submit its final report following evaluation of the acceptable sodium product form for the TWRS tank sludge pretreatment process (i.e., caustic washing). This evaluation will be conducted in concert with TWRS TPA milestone M-50-03 (due date March 31, 1998). This Hanford Site radioactive (FFTF, Hallam, and Sodium Reaction Experiment) sodium evaluation will address other conversion options for disposal of the sodium if the product use for TWRS is not viable. Regardless of which option is selected, a new sodium reaction facility will be constructed adjacent to the sodium storage facility to convert the bulk metallic sodium to the appropriate chemical form. This report will include a decision on the final disposition of the Hanford Site radioactive sodium (e.g., disposal or reuse). Appropriate milestones and target dates will be established for construction and operation of the sodium reaction facility based on the option selected.	
	300 AREA SPECIAL CASE WASTE* <i>* (See attached inventory listing for description)</i>	
M-92-12	Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for consolidated storage prior to disposal of Hanford site 300 Area Special Case Waste (SCW).	September 2006
M-92-13	Submit 300 Area SCW Project Management Plan (PMP) to Ecology pursuant to Agreement Action Plan section 11.5.	September 2000
	The 300 Area SCW PMP will include all plan elements required by Agreement Action Plan section 11.5. including but not limited to: (i) 300 Area SCW wastes and materials inventory (buildings 325, 327, and other 300 Area buildings/facilities), (ii) characterization and hazardous waste designation results associated with inventory wastes and materials, (iii) detailed descriptions of phases I, II, and III SCW removal, transport and storage, and (iv) an analysis of the sufficiency of site wide SCW storage capabilities.	
M-92-14	Complete removal and transfer, and initiate storage of phase I 300 Area SCW waste and materials.	September 2002
	Phase I inventory will consist of, at minimum, one-third the total curie content of all 300 Area SCW.	

- M-92-15 Complete removal and transfer, and initiate storage of phase II 300 Area SCW waste and materials. September 2004
- Phase II inventory will consist of, at minimum, half of the remaining curie content of 300 Area SCW.
- M-92-16 Complete removal and transfer, and initiate storage of phase III 300 Area SCW wastes and materials. September 2006
- Phase III inventory will consist of any remaining 300 Area SCW wastes and materials.

Associated interim milestones established under other TPA major milestones.

- M-89-05 Complete 324 Facility SCW Assessment in support of 324 closure. June 1998

(Reference
TPA
Amendment
V)

Change Number M-20-96-02	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date D R A F T June 14, 1996
Originator Ecology/ DOE		Phone
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title Modification of Major Milestone M-20-00 and establishment of M-20-00 interim milestones in support of Major Milestone M-90-00 (see change request M-90-96-01) (governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for the storage, and/or disposal of treated and immobilized tank wastes ¹).		
Description/Justification of Change Agreement Milestone M-33-00 was established to: (1) prompt the development of milestones necessary for the storage, treatment/processing, and disposal of Hanford site solid wastes and hazardous materials not yet covered under the <u>Hanford Federal Facility Agreement and Consent Order (Agreement)</u> , and (2) prompt the development and incorporation of Agreement modifications designed to aid in achieving integrated management of all aspects of Hanford site "cleanup" (including but not limited to waste and materials management, remedial action, and site closure).		
Impact of Change Approval of this change request by the Parties modifies major milestone M-20-00, and establishes new interim milestones under major milestone M-20-00 in support of new major milestone M-90-00 governing the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for: (1) the interim storage of Tank Waste Remediation System (TWRS) Immobilized High-Level Tank Waste (IHLW) and other canistered high level waste forms, and (2) for the interim storage and disposal of TWRS Immobilized Low-Activity Tank Waste (ILAW). On approval, Hanford site planning and budget development documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans) will be modified accordingly.		
Affected Documents <u>Hanford Federal Facility Agreement and Consent Order, Sixth Amendment, February 1996 (including Table D and Action Plan Work schedules), Hanford site internal planning and budget documents (e.g., Sitewide System Engineering control documents, Project Management Plans and Multi Year Work Plans).</u>		
Approvals _____ Date ___ Approved ___ Disapproved DOE _____ Date ___ Approved ___ Disapproved EPA _____ Date ___ Approved ___ Disapproved Ecology		

¹ This M-90-00 milestone covers those aspects of the Hanford Tank Waste Remediation System not within the scope of Agreement major milestones: M-20 (with the exceptions noted here), M-32, M-40, M-41, M-42, M-43, M-44, M-45, M-46, M-50, M-51, M-60, and M-61.

Description/Justification of Change (continued)

In support of new Major Milestone M-90-00, Major Milestone M-20-00 is modified as follows:

M-20-00 Submit Part B permit applications or closure\post closure plans for all RCRA TSD units. Permit applications, closure, and post-closure plans will be submitted to Ecology and/or EPA for approval in accordance with their respective authorities. Individual unit submittals (enforceable as interim milestones) will occur as shown in appendix D.

~~2/28/2000~~
~~12/31/2003~~

Preclosure work plans will be prepared and submitted for approval for TSD units which will achieve closure in conjunction with the disposition of the facility in which they are contained.

In support of new Major Milestone M-90-00, new interim milestones under Major Milestone M-20-00 are established as follows:

M-20-56	Submit canister storage facility Part B Dangerous Waste Permit application to Ecology.	Dec. 2000
M-20-57	Submit interim ILAW facility Part B permit application to Ecology.	Dec. 2000
M-20-58	Submit LAW disposal facility Part B Permit application to Ecology.	Dec. 2003



Department of Energy

Richland Operations Office
P.O. Box 550
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AUG 1 1996

96-EAP-218

Ms. Mary Riveland, Director
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Department of Ecology
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U.S. Environmental Protection Agency
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Addressees:

REGULATORY STATUS OF SPENT NUCLEAR FUEL (SNF) AT HANFORD

- References:
- (1) DOE HQ ltr. to Sylvia K. Lawrence, EPA, from Raymond P. Berube, EH-20, "Regulatory Status of Spent Fuel," dated November 19, 1992.
 - (2) Presentation to EPA given by Gary E. McDannel, Lockheed Idaho Technologies Company, "Applicability of RCRA to DOE Spent Nuclear Fuels," dated January 19, 1995.
 - (3) Document, U.S. Department of Energy Environmental Management, Office of Spent Fuel Management and Special Projects, "National Spent Fuel Program Preliminary Report RCRA Characteristics of DOE Owned Spent Nuclear Fuel DOE-SNF-REP-002 Revision 3," dated July 1995.

Tentative agreement in negotiations to establish new milestones in the Hanford Federal Facility Agreement and Consent Order (hereafter Tri-Party Agreement or TPA) for major Milestone M-33 were completed on June 14, 1996. These negotiations were intended to establish new schedules and milestones 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 at the Hanford Site. As part of these negotiations, discussions were held regarding the regulatory status of spent nuclear fuel (SNF) stored at Hanford. On June 3, representatives of EPA Region 10 and the Washington State Department of Ecology (Ecology) requested a formal written response concerning the U.S. Department of Energy's (DOE) RCRA applicability designation determination with respect to SNF at Hanford.

In November 1992, DOE's Deputy Assistant Secretary for Environment began formal correspondence with the Director of EPA's Office of Solid Waste regarding the regulatory status of SNF within the DOE complex relative to the RCRA hazardous waste requirements (Reference 1). In this correspondence, DOE cited an earlier study prepared for the EPA that concluded that spent fuels would not likely meet the criteria for RCRA hazardous wastes (U.S. EPA, Evaluation of Spent Nuclear Fuel as Mixed Waste, June 1990, prepared by S. Cohen & Associates). However, DOE also expressed concern that certain questions remain and a degree of uncertainty exists with respect to the applicability of RCRA to these materials. Dialogue between the two agencies continued for the next two years, culminating with a presentation to EPA in January 1995 (Reference 2).

The January 1995 presentation contained information regarding DOE's efforts to determine the applicability of RCRA to DOE SNF. Primarily, the presentation provided information regarding evaluations as to whether various categories of DOE SNF would exhibit the RCRA hazardous waste characteristics of toxicity or reactivity, or constitute a RCRA listed hazardous waste. The presentation concluded that all but a few categories of SNF clearly did not exhibit a hazardous characteristic or contain a listed waste.

Since January 1995, additional characterization work has been conducted on DOE SNF throughout the DOE complex. In July 1995, a preliminary report was completed describing the details of the DOE complex-wide effort (Reference 3). Copies of this report were recently provided to members of your staffs. The purpose of Reference 3 was to explain in detail the DOE effort thus far to characterize all SNF controlled by DOE in the context of the potential applicability of RCRA requirements to DOE-controlled SNF. In brief, the report concluded that if SNF were determined to be a solid waste, the vast majority of SNF would not be a hazardous waste as defined in RCRA regulations. Although additional characterization efforts have occurred throughout the DOE complex since July 1995, the results of those efforts are consistent with DOE's position regarding applicability of RCRA requirements contained in Reference 3.

In accordance with RCRA regulations (specifically 40 CFR 262.11), hazardous waste determinations may be conducted by testing the waste, or alternatively, "by applying knowledge of the hazardous characteristic of the waste in light of the materials or the process used." In cases where personnel performing sampling and analysis may be repeatedly exposed to radioactivity and hazardous chemicals, there is a strong incentive to rely, to the extent possible, on knowledge of the materials and processes used. The Department has historically adopted an approach that uses a combination of process knowledge and select sampling for characterizing radioactive materials in order to minimize the threat to human health and the environment. DOE employed this approach and divided the various types of DOE-owned SNF into 55 categories based on fuel type, matrix type and material, cladding type, uranium-235 enrichment, degree of burnup, potential hazardous materials and

characteristics, and actinide content. Current preliminary process knowledge and analyses indicate that at least 47 of the categories would not be subject to RCRA regulation if SNF were determined to be a solid waste. With regard specifically to Hanford, sodium-bonded SNF is the only category present at the site that would require further evaluation before a more definitive conclusion regarding its RCRA hazardous characteristics can be drawn. Only about 1 percent of the DOE-owned sodium-bonded fuel is at Hanford. This represents approximately one-half of one percent of the Hanford SNF. All of this SNF is scheduled to be shipped to the Idaho National Engineering Laboratory (INEL) during the period between the years 2000 and 2005 for appropriate management. Management options the Department may decide to employ include storage or treatment in preparation for disposal of the material in a geologic repository.

Before a material can be a hazardous waste, it must first be determined to be a solid waste. As previously indicated, the focus of Reference 3 is whether SNF would be a hazardous waste if determined to be a solid waste. Until 1992, DOE had an established reprocessing program. Although DOE is generally no longer reprocessing SNF, we are evaluating whether to undertake some activities that would involve further use of SNF, such as research and development or treatability studies. Additionally, certain SNF components, such as cladding, generally continue to serve the purpose for which they were intended (e.g., containment and shielding of radioactivity). Moreover, even if SNF were considered to have no further purpose, "special nuclear material" is specifically excluded from the RCRA definition of solid waste (42 U.S.C. 6903 (27)). Thus, for example, the N Reactor fuel stored at Hanford is not subject to regulation under RCRA because "special nuclear material" is categorically excluded from characterization as a solid waste (40 CFR 261.2(a)(4)) and because the N Reactor fuel does not otherwise contain any RCRA hazardous waste. The term "special nuclear material," as defined by the Atomic Energy Act of 1954, as amended, includes uranium enriched in the isotope 235 and, therefore, applies to the N Reactor fuel (42 U.S.C. 2014(aa)).

In conclusion, for the reasons discussed above, DOE does not believe that SNF at Hanford is subject to the requirements of RCRA. Moreover, only the sodium-bonded fuel would appear to require further analysis to determine if it would exhibit a RCRA hazardous characteristic.

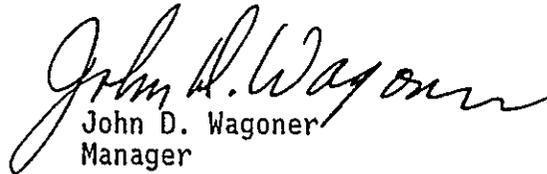
Addressees
96-EAP-218

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AUG 1 1996

If you have further questions please contact me or Elizabeth D. Sellers, of my staff, on (509) 376-7465.

Sincerely,


John D. Wagoner
Manager

EAP:FRM

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LISTING OF SPECIAL WASTES AND MATERIALS IN THE 300 AREA
CATEGORIZED AS "300 AREA SPECIAL CASE WASTE" UNDER
THE TPA M-92 MILESTONE
JUNE 13, 1996

The attached list describes the inventory of wastes and materials in the 300 Area which are subject to the requirements of the M-92 milestones for "300 Area Special Case wastes" (SCW). For purposes of developing this inventory, SCW is considered to be radioactive waste generated by DOE-funded activities for which there is no economic disposal or storage pathway provided via the most recent version of the "Hanford Site Solid Waste Acceptance Criteria", WHC-EP-0063. Material residues in building systems (such as particulates in ventilation systems which are still active) are not included. Typical SCW types in the 300 Area include:

- - > Cat3 Low-level Waste (GTC3LLW)
- High-activity, high dose rate streams of:
 - Low-level mixed waste (LLMW)
 - Transuranic and transuranic mixed waste (TRU/TRUM)
- Residual material from the testing of irradiated fuel. These residues are comprised of fuel pin fragments, dispersed particulate, and/or chemically altered fuel that cannot be readily retrieved and packaged with the fuel assemblies and intact pins.

The inventory was developed through consultation with staff responsible for the materials and with environmental support personnel. The inquiry was focused on areas (such as hot cells) which were judged to be likely locations for SCW, although non-hot cell facilities were also queried.

The inventory reflects best judgement as to which materials meet the definition of SCW. For instance, several fuel assembly-type materials in inventory are not shown because it is believed that the fuel can be readily retrieved, packaged with their assemblies, and managed pursuant to the requirements for spent fuel.

Omitted from this inventory is any material covered under other existing and currently proposed milestones, such as M-89, M-90, M-91, or covered under other portions of M-92 (e.g., 324 B-Cell and HLV tank wastes, unirradiated uranium, spent nuclear fuel, cesium and/or strontium capsules).

This 300 Area SCW inventory will be updated as necessary. Updates may be necessary in the event that the WHC-EP-0063 acceptance criteria are revised or that additional 300 Area wastes and materials are identified during the planned facility waste and material assessments or during disposition activities for the identified wastes and materials. As a result, this inventory list may increase or decrease over time.

Summary Information for Proposed M-92 Milestones on Special Case Waste In The 300 Area
(May 30, 1996)

300 Area Location	Location in Building	Waste/Material	Approximate Wt/Vol/Ci	Risk	Comment
324 Bldg	A-Cell	German Glass Logs	34 cans, 12 in X 48 in, 8.3 M Ci total	low	Funding is in place from Germany to remove.
	D-Cell	Nonfuel Bearing Hardware		low	Funding for removal is in place.
	Basement	Neptunium Oxide Powder (basement)	0.05 Kg	low	
325 Bldg. 325-A Cells					
	B-Cell	Pieces of Fuel Rod Material and Fines From Fuel Rods-- (Shippingsport, Yankee, and Saxton Fuel)	1.2 Kg, 1.1 Ci		In a 2" Swagelock Nipple labeled as B-Cell Blend
	B-Cell	Fragments of Yankee Fuel	1.7 Kg, 1.8 Ci		3" x 3' Pipe
	B-Cell	Saxton Fuel-derived Plutonium	5.7 g, 0.5 Ci		2" x 1' Pipe labeled as Saxton Fuel
	B-Cell	Np-237	23 mCi		In TK-13 (A tank under the tray in B-Cell). A nitrate solution.
	Gloveboxes	Dissolved N-Reactor Fuel (unirradiated)	5.8 Kg		Room 516-- 5.8 Kg in Nitric Acid

300 Area Location	Location in Building	Waste/Material	Approximate Wt/Vol/Ci	Risk	Comment
325 Bldg. 325-B Cells (Note: These cells are part of the 325 HWTUs, an interim status storage and treatment unit)	Cell 1	1. RH-TRU mixed waste from TWRS tank characterization 2. RH-TRU miscellaneous hot cell dry waste with fuel pieces mixed in. 3. High dose rate hot cell waste, incl. cladding, cell wipes, misc.	1. (20) 5-quart containers 2. (30) 1-gallon containers. 3. (35) 4&5 quart containers.		1. Dose rate precludes economical packaging for transfer to CWC. 2. ~ 1/3 of containers grouted. ~ 2/3 of containers not grouted. 3. High dose rate LLW and/or TRU waste. No hazardous constituents.
	Cell 3	Oxides of pieces of irradiated fuel.	17 sections of pipe with diameters 1-3", length 6-12".		Fragmented fuel segments, includes chopped up cladding.
327 Bldg	A-Cell	Fines of fuel.	~150+ 1-gallon buckets.		Stored throughout hot cells.
	D-Cell	Pieces of irradiated fuel pellets.	Stored in Al tubes 3/4" diam, 1-2' long.		Fuel originally from Peachbottom, HB Robinson, Turkey Point.
	E-Cell	Pieces of irradiated fuel pellets.	Stored in Al tubes 3/4" diam, 1-2' long.		Fuel originally from Peachbottom, HB Robinson, Turkey Point.
	F-Cell	Solvent-contaminated wipers, sorbents, etc.	1-2 1-gallon cans		Waste isolated from fuel cans in A-Cell

300 Area Location	Location in Building	Waste/Material	Approximate Wt/Vol/Ci	Risk	Comment
	Water Storage Basin	Spent ion exchange column.	SS pipe, 16' long, 2' diameter, dose rate ~200 R/hr.	low	Column used for removal of Cs-134, Cs-137, possible TRU.
	Dry Storage Cell	1. Pieces of irradiated fuel pellets.	1. ~100 small tin cans. Cans limited to 7g fissile.		1. Pellets and pieces are stored in Al tubes within cans.
		2. Pieces of irradiated fuel pellets.	2. Stored in Al tubes 3/4" diam, 1-2' long.		
3. Pieces of irradiated fuel pellets embedded in resin blocks.		3. ~400 small cans, ~1.5g fuel material per resin block, <7 g material per can.	3. Each resin block contains ~ half a fuel pellet.		
NonPNNL Bldgs in 300 Area					
340	Throughout	Tank heels and heels in ancillary equipment and containment structures (and/or decontamination waste resulting from future closure activities)	TBD	low	This system is still in service, but will be closed at a date to be determined soon. Removal from service is expected in or before 1999, at which time closure activities would begin.
340-A	Throughout	Tank heels (sludge) which has settled out from waste held in the tanks	60-120 ft ³	low	The sludge in these tanks is category 3 TRU-mixed waste.