

## **APPENDIX A**

### **DEFINITION OF TERMS AND ACRONYMS**

- Acronyms
- Definition of Terms used in the Action Plan
- Definition of other Technical Terms

## APPENDIX A

### Acronyms (sheet 1 of 2)

ARAR	Applicable, or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substances and Disease Registry
CDR	Conceptual Design Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CMD	Corrective Measures Design
CMi	Corrective Measures Implementation
CMS	Corrective Measures Study
CPP	CERCLA Past Practice
CRP	Community Relations Plan
DOE	U.S. Department of Energy
DOI	U.S. Department of Interior
DST	Double Shell Tank
DW	Dangerous Waste
EA	Environmental Assessment
Ecology	State of Washington Department of Ecology
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FFTF	Fast Flux Test Facility
FS	Feasibility Study
HSWA	Hazardous and Solid Waste Amendments (of 1984)
HSWMUR	Hanford Site Waste Management Units Report
HWMA	Hazardous Waste Management Act
HWVP	Hanford Waste Vitrification Plant
IM	Interim Measure
IRA	Interim Response Actions
ISV	In-situ Vitrification
LDR	Land Disposal Restrictions
NCP	National Oil and Hazardous Substances Contingency Plan
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Deficiency
NPL	National Priorities List
O&M	Operation and Maintenance
PNRS	Preliminary Natural Resource Survey
PUREX	Plutonium/Uranium Extraction
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RFI/CMS	RCRA Facility Investigation/Corrective Measures Study
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPP	RCRA Past Practice

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### Acronyms (sheet 2 of 2)

SST	Single-Shell Tank
TAG	Technical Assistance Grant
TSD	Treatment, Storage, and Disposal
WAC	Washington Administrative Code
WIDS	Waste Identification Data System
WPPSS	Washington Public Power Supply System
WRAP	Waste Receiving and Processing

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### Definition of Terms Used in the Action Plan (sheet 1 of 11)

**Administrative Record:** The administrative record is the body of documents and information that is considered or relied upon in arriving at a final decision for a remedial action, removal action, corrective measure, interim measure, RCRA permit, or approved RCRA closure plan.

**Agency (Agencies):** unless otherwise specified, the State of Washington Department of Ecology and the U.S. Environmental Protection Agency.

**Agency for Toxic Substances and Disease Registry:** the agency under the Department of Health and Human Services, Public Health Service, that is responsible for conducting health assessments at Superfund sites for EPA. (see Section 7.7)

**Agreement:** The Hanford Federal Facility Agreement and Consent Order, including all attachments, addenda and modifications, which are required to be written and to be incorporated into or appended.

**Applicable or Relevant and Appropriate Requirement (ARAR):** any standard, requirement, criteria or limitation as provided in Section 121(d)(2) of CERCLA. (see Section 7.5)

**Authority:** legal jurisdiction enabling a governmental agency to administer and implement federal or state laws and regulations.

**B Plant:** old Hanford plutonium recovery and separations facility converted in 1968 for waste fractionation.

**Base RCRA Program:** those elements of the federal Resource Conservation and Recovery Act of 1976, as amended, for which the state of Washington has received authorization to implement. The state implements its own dangerous waste program in lieu of the base RCRA program.

**Burial Ground:** land area specifically designated to receive contaminated waste packages and equipment, usually in trenches covered with overburden.

**Carbon Tetrachloride:** a chlorinated organic solvent used in the plutonium extraction process at the Plutonium Finishing Plant. Carbon tetrachloride is a known human liver carcinogen via inhalation and ingestion. Other toxic effects include central nervous system damage.

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**Chromium:** an inorganic element, found in the environment in two forms: hexavalent and trivalent. Hexavalent chromium is carcinogenic via inhalation; hexavalent and trivalent chromium are less toxic via ingestion. Hexavalent chromium is a primary contaminant in groundwater beneath the 100 Area at Hanford.

**CERCLA Past Practice (CPP):** a process by which a past practice unit containing hazardous substances will be addressed for remedial action (as opposed to RCRA past practice). (see Section 7.3)

**Code of Federal Regulations (CFR):** regulations developed by the federal government to implement statutory requirements.

**Community Relations Plan (CRP):** a report that assesses and defines a community's informational needs concerning potential hazards posed by conditions at hazardous waste sites. The CRP also encourages and ensures two-way communication between an affected community and the public agency overseeing the site cleanup. (see Section 10.0)

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund:** the federal statute enacted in 1980 and reauthorized in 1986, which provides the statutory authority for cleanup of hazardous substances that could endanger public health or welfare or the environment.

**Conceptual Design Report:** DOE's initial design phase for a new hazardous waste management or support unit at Hanford; a specific element necessary in DOE's planning and budget process.

**Confined Aquifer:** an aquifer having defined, relatively impermeable upper and lower boundaries and the pressure of which is significantly greater than atmospheric.

**Contamination (Groundwater and Surface Water):** an impairment of quality by biological, chemical, or radiological materials that lowers the water quality to a degree which creates a potential hazard to the environment, public health, or interferes with a beneficial use.

**Corrective Measures Implementation (CMI):** the step in RCRA past practice process in which a corrective action system is designed and implemented; comparable to the Remedial Design and Remedial Action phases of the CERCLA process. (see Section 7.4)

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### Definition of Terms Used in the Action Plan (sheet 3 of 11)

**Corrective Measures Study (CMS):** the step in the RCRA past practice process in which alternatives for a corrective action system are investigated and screened; comparable to the Feasibility Study phase of the CERCLA process. (see Section 7.4)

**Crib:** an underground structure designed to receive liquid waste that can percolate into the soil directly and/or after travelling through a connected tile field.

**Cyanide:** an extremely hazardous substance used in the extraction of ores, treat of metals, and in the manufacture of pharmaceuticals.

**Dangerous Waste (DW):** those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.

**Days:** calendar days, unless otherwise specified. Any submittal, Written Notice of Position or written statement of dispute that would be due under the terms of this Agreement on a Saturday, Sunday or federal or state holiday shall be due on the following business day.

**Decontamination and Decommissioning (D&D)-**(as defined by DOE Order 5840.2 for the D&D Program):

- **Decontamination:** the removal of radioactive contamination from facilities, equipment, or soils by washing, heating, chemical or electrochemical action, mechanical cleaning, or other techniques.
- **Decommissioning:** actions taken to reduce the potential health and safety impacts of DOE contaminated facilities, including activities to stabilize, reduce, or remove radioactive materials or to demolish the facilities.

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**Definitive Design:** DOE's design phase in which detailed construction drawings and specifications are prepared following conceptual design for a new, or modification to a facility or unit.

**Double Shell Tank (DST):** a reinforced concrete underground vessel with two inner steel liners to provide containment and backup containment of liquid wastes; annulus is instrumented to permit detection of leaks from inner liner.

**Extremely Hazardous Waste (EHW):** those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.

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**Fast Flux Test Facility (FFTF):** A liquid metal test reactor that serves as a test tool for advanced reactor technology. Operations at the FFTF began in April 1982 and have since expanded into other areas, such as fusion research, space power systems and isotope production.

**Feasibility Study (FS):** the step in the CERCLA process in which alternatives for a remedial action system are investigated and screened (see Section 7.3).

**Fiscal Year (FY):** as used in this document, the federal government fiscal year, October 1 through September 30. Note that the State of Washington fiscal year is July 1 through June 30.

**French Drain:** a rock-filled encasement with an open bottom to allow seepage of liquid waste into the ground.

**Groundwater:** water which fills the spaces between soil, sand, rock, and gravel particles beneath the earth's surface. Rain that does not immediately flow to streams and rivers slowly percolates down through the soil to a point of saturation to form groundwater reservoirs. Groundwater flows at a very slow rate, compared to surface water, along gradients which often lead to river systems. If occurring in significant quantities, groundwater can be withdrawn for domestic, industrial, and agricultural purposes.

**Grout:** a fluid mixture of cementitious materials and liquid waste that sets up as a solid mass and is used for waste fixation and immobilization. The Hanford Grout facility will be regulated under the RCRA program.

**Grout Campaign:** the complete filling of one vault with treated waste/grout mixture.

**Hanford Operable Units Report:** documents the assignment of individual units to operable units and provides the rationale and justification for the prioritization of the operable units for the remedial investigation process.

**Hanford Site:** also referred to as "Hanford" or "Site", the approximately 560 square miles in Southeastern Washington State, excluding leased lands, and State and Bonneville Power Administration owned lands, which is owned by the United States and which is commonly known as the Hanford Reservation (Figure 7-1 in the Action Plan). This definition is not intended to limit CERCLA or RCRA authority regarding hazardous wastes, substances, pollutants or contaminants which have migrated off the Hanford Site.

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### Definition of Terms Used in the Action Plan (sheet 5 of 11)

- Hanford Site Waste Management Units Report (HSWMUR): data base listing all known waste management units at Hanford and summarizes the wastes handled, dates of use and other information about each unit. (see Section 3.5)
- Hanford Waste Vittrification Plant (HWVP): a facility to be constructed for treatment of high level liquid radioactive waste. Liquids are vitrified or glassified in order to reduce the potential for radioactive and hazardous contamination leaching into the environment. This unit will be regulated under RCRA.
- Hazardous and Solid Waste Amendments of 1984, P.L. 98-616 (HSWA): the reauthorization of the RCRA program, enacted by Congress on November 8, 1984.
- Hazardous Substance: substances regulated under CERCLA, as defined in CERCLA Sec. 101(14).
- Hazardous Waste: those wastes included in the definitions of RCRA 1004(5) and RCW 70.105.010(15).
- Hazardous Waste Constituent, also referred to as "hazardous constituent" or "constituent": a constituent that caused the Administrator of the Environmental Protection Agency to list the hazardous waste in 40 CFR Part 261, Subpart D or a constituent listed in Table 1 of 40 CFR 261.24. (Hazardous constituents are listed in 40 CFR Part 261, Appendix VIII).
- Hazardous Waste Management Act (HWMA): the Hazardous Waste Management Act, codified at Ch. 70.105 RCW, and its implementing regulation at Ch. 173-303 Washington Administrative Code. (A state program, commonly referred to as the State Dangerous Waste Program, which regulates the generation, treatment, storage and/or disposal of hazardous wastes in cooperation with RCRA).
- Imminent and Substantial Endangerment: a situation in which the lead regulatory agency and DOE immediately respond to a release of a hazardous substance or hazardous waste in order to abate the danger or threat to public health or welfare or the environment. Such action may be taken under CERCLA, RCRA, or HWMA authority, as appropriate.



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**In-Situ Vittrification (ISV):** a process by which electrical current is passed through contaminated soils in-place heating the soil to a molten state. While cooling the soils become a homogenous glass-like block thereby minimizing the leachability of contaminants.

**Interim Isolation (as pertains to Single-Shell Tanks):** disconnecting and blanking or capping pipelines from SST systems and installing barriers to avoid inadvertent liquid addition.

**Interim Measure (IM):** an expedited action taken under RCRA authority to mitigate a hazardous waste release or to reduce the potential for a future release from a unit. (see Section 7.2.4)

**Interim Response Action (IRA):** an expedited action taken under CERCLA authority to mitigate a hazardous substance release or to reduce the potential for a future release from a unit. (see Section 7.2.4)

**Interim Stabilization (as pertains to Single-Shell Tanks):** is the removal of pumpable supernatant and interstitial liquid from SST systems into DST systems. As much liquid as practicable will be removed. Supernatant is free standing liquid. Interstitial liquid is that liquid in the waste matrix contained within the pore spaces of the salts and sludges, some of which is capable of gravity drainage while the rest is held by capillary forces.

**Interim Status:** a RCRA provision which grants a facility the right to continue to operate (treat, store, or dispose of hazardous waste) in accordance with applicable RCRA or state regulations until a RCRA permit is issued.

**Land Disposal Restriction Waste (LDR):** RCRA hazardous wastes, subject to Section 3004(d) through (m) of RCRA and 40 CFR 268.

**Lead Regulatory Agency:** the regulatory agency (EPA or Ecology) which is assigned the primary administrative and technical responsibility with respect to actions under this Agreement at a particular Operable Unit pursuant to Section 4.6 of the Action Plan. The designation of a Lead Regulatory Agency shall not change the jurisdictional authorities of the Parties.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP):** the title of the federal regulations (40 CFR Part 300) promulgated under the authority of CERCLA.

**National Priorities List (NPL):** EPA's list of priority waste sites containing hazardous substances that will be investigated and cleaned up under the Superfund program.

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**Notice of Deficiency (NOD):** a RCRA administrative action in which the lead regulatory agency defines specific deficiencies or omissions in RCRA primary documents. (see Section 9.2)

**Operable Unit:** a discrete portion of the Hanford Site, as identified in Section 3.3 of the Action Plan. An operable unit at Hanford is a group of land disposal sites placed together for the purposes of doing a Remedial Investigation/Feasibility Study (RI/FS) and subsequent cleanup actions. The primary criteria for placement of a site into an operable unit includes geographic proximity, similarity of waste characteristics and site type, and the possibility for economies of scale.

**Parties:** the U.S. Environmental Protection Agency, the State of Washington Department of Ecology, and the U.S. Department of Energy, all of which are signing the Agreement and Action Plan.

**Plutonium Uranium Extraction (PUREX):** latest in a line of separation technologies, preceded by bismuth phosphate and REDOX.

**Preliminary Assessment and Site Inspection (PA/SI):** normally the first step in analyzing the nature and severity of contamination at a potential CERCLA site and is used to determine if a site should be nominated for the NPL. Based upon extensive documentation previously submitted to EPA by DOE, this requirement is considered to have been satisfied for the Hanford Site.

**Primary Documents:** documents which contain information, documentation, data, and proposals upon which key decisions will be made with respect to the remedial action or permitting process. Primary documents are subject to dispute resolution and are part of the administrative record. (see Section 9.2)

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**Project Manager:** the individual responsible for implementing the terms and conditions of the Agreement and Action Plan on behalf of his/her respective Party. EPA, DOE, and Ecology will each designate one Project Manager. (see Section 4.1)

**Quality Assurance (QA):** the systematic actions necessary to provide adequate confidence that a material, component, system, process, or facility performs satisfactorily, or as planned in service.

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**Quality Control (QC):** the quality assurance actions that control the attributes of a material, process, component, system, or facility in accordance with predetermined quality requirements.

**Radioactive Mixed Waste:** also called "mixed waste", wastes that contain both hazardous waste subject to RCRA, as amended, and radioactive waste subject to the Atomic Energy Act of 1954, as amended. Mixed waste is regulated under the State Dangerous Waste Program.

**Radioactive Waste:** a solid, liquid, or gaseous material of negligible economic value that contains radionuclides in excess of threshold quantities except for radioactive material from post-weapons-test activities.

**Record of Decision (ROD):** the CERCLA document used to select the method of remedial action to be implemented at a site after the Feasibility Study/Proposed Plan process has been completed. (see Section 7.3)

**Remedial Action (RA):** the CERCLA process of remedial action implementation after the investigative steps have been completed and after issuance of the Record of Decision and after Remedial Design has been completed. (see Section 7.3)

**Remedial Design (RD):** the CERCLA process of design for the remedial action alternative that was selected in the Record of Decision. (see Section 7.3)

**Remedial Investigation (RI):** the CERCLA process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations. The RI is done in conjunction with the Feasibility Study. (see Section 7.3)

**Resource Conservation and Recovery Act (RCRA):** 42 U.S.C. Sec. 6901 et seq., as amended. For purposes of this Agreement, "RCRA" also includes the HWMA Ch. 70.105 RCW. (A federal law enacted in 1976 that regulates the generation, transportation, treatment, storage, and disposal of hazardous wastes).

**Responsiveness Summary:** a summary of oral and/or written public comments received during a comment period on key documents, and agency responses to those comments. The responsiveness summary is especially valuable during the decision process at a site, because it highlights community concerns about the proposed decision.

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- RCRA Facility Assessment (RFA): the initial RCRA process to determine whether corrective action for a RCRA past practice unit is warranted, or to define what additional data must be gathered to make this determination; analogous to a CERCLA Preliminary Assessment and Site Inspection (see Section 7.4)
- RCRA Facility Investigation (RFI): the RCRA process of determining the extent of hazardous waste contamination; analogous to the CERCLA Remedial Investigation. (see Section 7.4)
- RCRA Past Practice (RPP): a process by which a past practice unit containing hazardous wastes or hazardous constituents will be addressed for corrective action, regardless of the date waste was received or discharged at a unit. (see Section 7.4)
- RCRA Permit: a permit under RCRA and/or HWMA for treatment, storage or disposal of hazardous waste.
- Revised Code of Washington (RCW): the Washington State statutes.
- Secondary Document: as distinguished from Primary Document, it is considered to be a supporting document providing information or data and does not, in itself, reflect key decisions. A secondary document is subject to review by the regulatory agencies and is part of the administrative record. It is not subject to dispute resolution. (see Section 9.2)
- Single-Shell Tank (SST): at Hanford, 149 single-shell carbon steel tanks (ranging in size from 55,000 to 1 million gallons) that have been used to store high-level radioactive wastes.
- State of Washington Department of Ecology (Ecology): the State of Washington Department of Ecology, its employees and Authorized Representatives.
- State-only Wastes: any liquid, solid, gas or sludge, regardless of quantity that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-070 through 103.
- Superfund Amendments and Reauthorization Act of 1986 (SARA): the reauthorization of the CERCLA statute, enacted by Congress in December 1986.

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### Definition of Terms Used in the Action Plan (sheet 10 of 11)

- Support Agency:** the regulatory agency (EPA or Ecology) which is not designated as the lead regulatory agency at an operable unit. The support agency will provide assistance to the lead regulatory agency, as needed.
- Technical Assistance Grant (TAG):** a grant available from EPA designed to enhance public participation as described in Section 117 of CERCLA. A maximum of \$50,000 per NPL site is available. Grant money must be used for the purpose of interpreting information regarding CERCLA activity at the site.
- Treatment, Storage, or Disposal (TSD):** a RCRA term referring to the treatment, storage, or disposal of hazardous waste. Under RCRA, TSD activity can occur only at units which received or stored hazardous waste after November 19, 1980, the effective date of the RCRA regulations.
- Treatment, Storage, or Disposal (TSD) Group:** a grouping of TSD units for the purpose of preparing and submitting a permit application and/or closure plan pursuant to the requirements under RCRA, as determined in the Action Plan.
- Treatment, Storage, or Disposal (TSD) Unit:** a unit used for treatment, storage, or disposal of hazardous waste and is required to be permitted and/or closed pursuant to RCRA requirements as determined in this Action Plan.
- Unit Manager:** the individual responsible for implementing the terms and conditions of the Action Plan at the operable unit level on behalf of his/her respective Party.
- United States Department of Energy (DOE):** the United States Department of Energy, its employees and Authorized Representatives.
- United States Environmental Protection Agency (EPA):** the United States Environmental Protection Agency, its employees and Authorized Representatives.
- Unplanned Release:** an unintentional release, including a spill, of hazardous waste or hazardous substance into the environment.
- Vadose Zone:** the unsaturated region of soil between the ground surface and the water table.
- Validated Data:** Data that DOE has determined meets criteria contained in the "Data Validation Guidelines for Contract Laboratory Program Organic Analyses" and "Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses" that are contained in the Sample Management Administrative Manual.

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Verified Data: Data that has been checked for accuracy and consistency by DOE following a transfer action (e.g., from manual log to computer or from distributed data base to centralized data repository).

Vitrification: [see Hanford Waste Vitrification Plant (HWVP) or In-Situ Vitrification.]

Washington Administrative Code (WAC): the Washington State regulations.

Waste Information Data System (WIDS): a data base which identifies all waste management units on the Hanford Site. It describes the current status of each unit, along with descriptive information. (see Section 3.5)

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### Definition of Other Technical Terms (sheet 1 of 7)

Note: These terms are not considered part of the Action Plan, but are provided to the reader for informational purposes only.

**Absorption:** the process by which radiation imparts some or all of its energy to any material through which it passes; the taking up of a substance by another substance.

**Alpha-Emitter:** a radioactive substance, such as plutonium, that emits alpha particles. Alpha radiation is much less penetrating than gamma or beta radiation, but is much more ionizing, and therefore potentially extremely toxic.

**Aquifer:** a geologic formation, group of formations, or part of a formation capable of yielding significant quantities of groundwater to wells, springs, or other points of discharge.

**Aquifer System:** a logical grouping of aquifers in a region, grouped on the basis of characteristics such as superficial geology, water quality, and vulnerability.

**Annulus:** also called "annular space", this is the space between the outer and inner casing of a well, or the space between the wall of the drilled hole and the casing.

**As Low As Reasonably Achievable (ALARA):** A radiation protection principle applied to radiation exposure, with costs and benefits taken into account.

**Background Water Quality:** the natural levels of chemical, physical, biological, and radiological constituents or parameters upgradient of a unit, practice, or activity that have not been affected by that unit, practice, or activity.

**Barrier:** a manmade addition to a disposal site that is designed to retard or preclude contaminant transport and/or to preserve the integrity of the disposal site.

**Basalt:** a dark, fine-grained, extrusive igneous rock.

**Basalt Waste Isolation Project (BWIP):** program to study Hanford as a possible location for the high-level nuclear waste repository.

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### Definition of Other Technical Terms (sheet 2 of 7)

**Beneficial Uses:** uses of waters of the state that include but are not limited to use for domestic water, irrigation, agriculture, fish, shellfish, recreation, industrial water, and generation of electric power.

**Beta Radiation:** essentially weightless charged particles (electrons or positrons) emitted from the nucleus of atoms undergoing nuclear transformation.

**Bottoms (tank bottoms):** the concentrated material remaining in the waste tanks after most of the contents have been pumped out for solidification or transfer to other storage tanks; refers also to specific tanks used to collect such bottoms waste from several other tanks.

**Byproduct Material:** waste produced by extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface waste resulting from uranium solution extraction processes; excludes fission products and other radioactive material covered in 10 CFR Part 20.3(3).

**Cold Standby:** a condition whereby a reactor is defueled and maintained in a state that will allow the reactor to be restarted, if necessary.

**Criteria:** numerical or narrative values which represent the maximum level a contaminant must not exceed to maintain a given beneficial use.

**Curie (Ci):** the basic unit used to describe the intensity of radioactivity. A curie is equal disintegrations to 37 billion pr second.

**Defense Waste:** radioactive waste from any activity performed in whole or in part in support of DOE atomic energy defense activities; term excludes waste under purview of the Nuclear Regulatory Commission or generated by the commercial nuclear power industry.

**Ditch:** an unlined conveyance for transport of liquid wastes to a pond or trench structure designed for percolation.

**Drywell:** a drainage receptable constructed by digging a hole and refilling with coarse gravel; also a watertight well casing used for inserting monitoring equipment.

**Enforcement Standard:** the value assigned to any contaminant for the purposes of regulating that contaminant.



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**Ethylene Glycol:** an organic compound used primarily as an anti-freeze.  
Ethylene glycol is moderately toxic when ingested.

**Evapotranspiration:** the combined loss of water from soil by evaporation and from the surfaces of plant structures.

**Half-life:** the time required for a radionuclide's activity to decay to half its value, used as a measure of the persistence of radioactive materials; each radionuclide has a characteristic constant half-life.

**Halogenated Hydrocarbons:** organic compounds containing atoms such as chlorine, fluorine, iodine, or bromine.

**Hydraulic Continuity:** a term used to describe the relationship between groundwater and surface water, wherein they are often connected, allowing flow in either or both directions.

**Iodine:** a gaseous inorganic chemical produced in the plutonium production reactors at Hanford. Radioactive isotopes of iodine are found in most radioactive waste streams at Hanford.

**Ion Exchange:** process for selectively removing a hazardous constituent from a waste stream by reversibly transferring ions between an insoluble solid and the waste stream; the exchange medium (usually from a column of resin) can then be washed to collect the waste or taken directly to disposal. Both the residue and liquid stream from this process may still be a hazardous waste.

**Isotope:** any of two or more forms of a chemical with the same atomic number and nearly identical chemical behavior but different atomic mass and physical (e.g. radioactive) properties.

**Jet Pumping:** a technique for removing interstitial liquor from single-shell tanks.

**Leachate:** the product obtained from the passage of water through landfills or storage piles.

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- Lead:** a heavy metal used for shielding material in nuclear reactors. Lead can be toxic when ingested or inhaled. Lead can impair nervous system development in children and can cause nervous system damage in adults. Lead is also a reproductive toxin.
- Level of Detection:** the level at which a constituent can be detected by a department approved method of analysis.
- Liquid Waste Disposal Site:** units used for discharge of contaminated liquids to the ground.
- Low-Level Waste (LLW):** typically contains small amounts of radioactivity in large volumes, and most can be handled without protective shielding. Solid low-level waste consists of trash such as clothing, tools, and glassware. Liquid waste consists primarily of water circulated as cooling water.
- Lysimeter:** an instrument for measuring the water percolating through soils and determining the materials dissolved by the water.
- Maximum Contaminant Level (MCL):** the maximum level of a contaminant in water that can exist without harming the beneficial use of drinking water. Defined specifically in the Safe Drinking Water Act.
- N-Reactor:** N-Reactor is a dual purpose reactor, generating electricity from its steam by-product in addition to producing plutonium. It is the only plutonium production reactor at Hanford that has operated since 1971. It is currently in standby status.
- National Pollutant Discharge Elimination System (NPDES):** grants authority to EPA and authorized states to issue permits for discharge of wastewaters into certain surface water bodies within prescribed limits for constituents, concentrations and volumes.
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- Percolation:** gravity flow of water through pore spaces in rock or soil.
- pH:** a measure of acidity and alkalinity.
- Plume:** a defined area of groundwater contamination.
- Plutonium:** a radioactive element used as the primary fuel in nuclear weapons. Plutonium is purified during various production operations at Hanford.

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- Point of Compliance:** a RCRA term, the point at which the groundwater protection standard applies and where monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.
- Ponds:** surface impoundments used to contain low-level liquid radioactive wastes, mixed wastes, or hazardous wastes.
- Receptor:** any living entity potentially affected by release of substances to the environment from Hanford operations.
- Recharge:** the net process of groundwater replenishment by infiltration of surface water through the soil column. Sources of recharge include precipitation and surface runoff from natural and man-made water courses and impoundments.
- Reduction/Oxidation (REDOX):** a facility and/or processes for separating plutonium from irradiated reactor fuels by using successive steps of chemical reduction/oxidation together with solvent extraction.
- Reverse Well:** liquid waste disposal structure consisting of a well (sometimes drilled into the water table) into which waste solutions were pumped.
- Salt Cake:** crystallized nitrate and other salts deposited in waste tanks, usually after active measures are taken to remove moisture.
- Sanitary Landfill:** a burial operation for disposing of nonradioactive, nonhazardous waste or garbage.
- Saturated Zone:** the subsurface zone in which all interconnected voids or pores are filled with water.
- Seepage Pond:** an artificial body of surface water formed by discharge from Hanford process operations.
- Solid Waste (radioactive):** either solid radioactive material or solid objects that contain radioactive material or bear radioactive surface contamination.

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**Stabilization:** treatment of waste or a waste site to protect the environment from contamination.

**State Waste Discharge Permit:** a permit issued pursuant to Chapter 173-216 WAC.

**Strontium 90:** a highly radioactive isotope common in most radioactive waste streams at Hanford.

**Sulfuric Acid:** a highly corrosive inorganic acid used in various production processes at Hanford.

**Surplus Facility:** any facility or site (including equipment) that has no identified programmatic use and may or may not be radioactively contaminated to levels that require controlled access.

**Synthetic Organic:** man-made chemical compounds that contain carbon and may be highly persistent in the environment.

**Tank Farm:** an installation of multiple adjacent tanks, usually interconnected, for storage of liquid waste, or substances used in Hanford operations. Major tank farms at Hanford at underground.

**Transuranic (TRU) Waste:** waste contaminated with long-lived transuranic elements in concentrations within a specified range established by DOE, EPA, and the Nuclear Regulatory Commission (NRC). These are elements shown above uranium on the chemistry periodic table, such as plutonium, americium, and neptunium.

**Trend Analysis:** a statistical methodology used to detect net changes or trends in contaminant levels over time.

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**Tritium:** a radioactive isotope of hydrogen used in nuclear weapons to increase the efficiency of the nuclear reaction.

**Tunnel:** a large underground storage structure for large pieces of equipment, often on railroad cars; PUREX storage tunnels.

**Unconfined Aquifer:** an aquifer overlain with permeable material and sensitive to contamination; also, an aquifer that has a water table or surface at atmospheric pressure.

**Vault:** a RCRA approved, subsurface structure designed for permanent disposal of low-level mixed wastes in grout.

## APPENDIX A

### Definition of Other Technical Terms (sheet 7 of 7)

Washington Guidance Level (WGL): an interim health level for a contaminant which does not have an established criterion but which may create a public health hazard. A WGL is based on less stringent development processes than a criterion and is meant to act as an enforcement guide until a criterion is established. WGL will be based on the most current available data which may include, but not be limited to: (a) USEPA Maximum Contaminant Level Goals, (b) USEPA Priority Pollutant Values, (c) USEPA Ambient Water Quality Criteria, (d) USEPA Health Advisories, (e) Other States criteria or Guidance Levels, and (f) Department of Social and Health Services Health Risk Assessments.

Water Table: the upper boundary of an unconfined aquifer surface below which soil saturated with groundwater occurs; defined by the levels at which water stands in wells that barely penetrate the aquifer.

200 Areas Plateau: the highest portion (aside from Rattlesnake and Gable Mountains) on the Hanford Site, containing most of the waste processing and storage facilities.

ATTACHMENT 3

MUTUAL COOPERATION FUNDING AGREEMENT  
BETWEEN  
THE STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
AND  
THE U.S. DEPARTMENT OF ENERGY

This MUTUAL COOPERATION FUNDING AGREEMENT (hereinafter called "Funding Agreement"), effective upon the date of signature, is by and between the United States Department of Energy, represented by the Richland Operations Office, and the State of Washington, represented by the Department of Ecology.

Whereas, the parties have entered into an AGREEMENT IN PRINCIPLE BETWEEN THE STATE OF WASHINGTON AND THE UNITED STATES DEPARTMENT OF ENERGY (hereinafter called "the Principle Agreement"), effective the 27th day of February 1989, and;

Whereas, the Department of Energy (DOE) desires to provide funding to the State Agencies responsible for environmental oversight, monitoring and emergency preparedness services to DOE as set forth in the Principle Agreement and this Agreement; and

Whereas, the State of Washington is willing to perform the effort contemplated by the Principle Agreement and this Agreement, and report thereon as contemplated by said agreements; and

Whereas, this Funding Agreement is executed by DOE under the authority of PL 95-91 and other applicable law, and by the State of Washington, through the Governor, under the authority of Article III of the Washington Constitution and Washington Revised Code Chapter 43.06 and other applicable law;

NOW THEREFORE, the parties hereto agree as follows;

ARTICLE I - SCOPE OF AGREEMENT

1. The State of Washington will implement an aggressive environmental oversight program as contemplated by this Agreement and the Principle Agreement, in support of DOE's activities at the Hanford Site, including technical analysis, work to be performed under the Hanford Federal Facilities Agreement and Consent Order (FFACO) sharing of samples and data, public education and information exchange, and monitoring of air, soil, vegetation, wildlife, fish, foodstuffs, ambient radiation, and water in the environs of the Hanford Site. Consistent with the Agreement in Principle which

the parties have signed, the State will establish and staff an extension office at Hanford to assist in the performance of these services.

## ARTICLE II - PAYMENT

1. In consideration of the State of Washington's performance of its responsibilities herein, DOE will make available to Ecology advance payments estimated to be \$2.9 million. This amount shall be provided through a letter of credit, which DOE shall establish, as follows:

For the period through September 30, 1989	\$ 500,000
For the period of October 1989 through September 1991	
an estimated	\$2,400,000
2. The State of Washington agrees to use and apply the funds provided pursuant to this Agreement for the sole purpose of helping to defray the costs of its employees who are performing work under the Principle Agreement and this Agreement (salary and related costs), and the reasonable directly associated costs of the State's activities under the Principle Agreement and this Agreement. The State of Washington agrees to establish procedures which will assure that the funding is utilized as provided herein.
3. Funding is currently available only in the amount of \$500,000. Payments commencing in October 1989 are subject to the availability of funds appropriated by the Congress which DOE may legally obligate and pay.
4. Funding for the State for its CERCLA costs and for the payment of RCRA permit fees and reasonable service charges pursuant to applicable State law are covered under the Hanford Federal Facilities Agreement and Consent Order, and therefore, such costs are separate from this agreement.
5. DOE shall, subject to the availability of appropriated funds, continue to provide funding to the State to perform the work and services under this Agreement during the period federal FY 1990 through FY 1993. On an annual basis, the State shall submit to DOE a proposed work scope and cost estimates for work and services to be performed by the State under this Agreement during the upcoming federal fiscal year. Subsequent to review by DOE, DOE shall provide such funds to the State through its letter of credit in accordance with this Agreement. In the event DOE disagrees with the State's proposed work scope and cost estimates, or does not have sufficient funds available, the signatories to the Agreement in Principle will attempt to resolve the funding level. Failure to agree to the funding amount shall result in termination of this agreement.
6. Ecology's performance of its obligations under Article I shall be

excused if its costs are not paid pursuant to the terms of this Funding Agreement.

#### ARTICLE III - REPORTS, RECORDS AND ACCOUNTS

1. The State of Washington agrees to keep records and books of account, in accordance with generally accepted accounting principles and practices, covering the DOE's payment of funds and the State's use of such funds.
2. The State will provide to DOE, within 90 days after the end of each federal fiscal year, a Financial Status Report (SF 269, short form) showing the expenditure of DOE funds under this agreement.
3. DOE shall at all reasonable times be afforded access to the books and records and to related correspondence, receipts, vouchers, memoranda, and other data reflecting the use of funds provided under this Funding Agreement. The State of Washington shall preserve such books and papers in accordance with the retention requirements referenced in Article IV Examination of Records by Comptroller General.

#### ARTICLE IV - EXAMINATION OF RECORDS

1. The Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment of funds under this Funding Agreement, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions related to this Funding Agreement.
2. Expenditures are subject to the requirements of the Single Audit Act of 1984 (P.L. 98-502) and Office of Management and Budget Circular A-128 (Audits of State and Local Governments)
3. Nothing herein shall be deemed to preclude an audit by the General Accounting Office of any transaction under this Agreement.

#### ARTICLE V - OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of the Funding Agreement or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.



ARTICLE VI - TERM AND TERMINATION

This Funding Agreement shall be in effect through federal FY 93; provided, however, that if the Principle Agreement is terminated, this Funding Agreement shall also terminate and any obligation of the State of Washington to perform the effort as contemplated herein and any obligation of DOE to provide funding as contemplated herein shall cease upon the effective date of the termination.

ARTICLE VII - IMPACT OF OTHER ARRANGEMENTS AND CONTINUATION

The parties agree that, prior to the expiration of this Funding Agreement, they will enter into discussions regarding the need for continuation or extension of this Funding Agreement.

DATED THIS 15th DAY OF May, 1989.

FOR THE STATE OF WASHINGTON

Christine O. Bregg  
Director  
Department of Ecology

FOR THE U.S. DEPARTMENT  
OF ENERGY

Michael J. Lawrence  
Manager  
Richland Operations Office

HANFORD FEDERAL FACILITY AGREEMENT

AND

CONSENT ORDER

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VOLUME 2 OF 2

CALENDAR YEAR 1990 ANNUAL UPDATE

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by

Washington State  
Department of Ecology

United States  
Environmental Protection Agency

United States  
Department of Energy

March 1990


CALENDAR YEAR 1990 ANNUAL UPDATE

TO THE

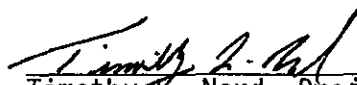
HANFORD FEDERAL FACILITY AGREEMENT

AND CONSENT ORDER

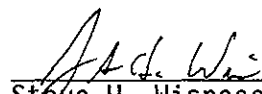
Approved for Implementation:

  
\_\_\_\_\_  
Paul T. Day, Project Manager  
US Environmental Protection Agency

4/10/90  
Date

  
\_\_\_\_\_  
Timothy L. Nord, Project Manager  
State of Washington  
Department of Ecology

4/10/90  
Date

  
\_\_\_\_\_  
Steve H. Wisness, Project Manager  
US Department of Energy

4/10/90  
Date

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B- Listing of Treatment, Storage, and Disposal  
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D- Work Schedule

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## **INTRODUCTION**

This document constitutes a revision of the Hanford Federal Facility Agreement and Consent Order (hereafter referred to as "the Agreement") Action Plan. Section 11.3 of the Agreement Action Plan establishes the requirement for an annual update to the Work Schedule which is contained as Appendix D to the Action Plan. In addition, it is the intent of the Parties to maintain Appendices B (Listing of Treatment, Storage, and Disposal Groups/Units), C (Prioritized Listing of Operable Units), and E (Key Individuals) up-to-date through the annual update process. Therefore, Appendices B, C, D, and E of the Agreement Action Plan are being issued as a separate volume from the rest of the Agreement.

This revision supersedes Appendices B, C, D, and E currently contained in the May 1989 version of the Agreement. The next issue of the main Agreement document will not include these appendices, as they will be reissued annually through use of this revision. This revision is part of the Agreement Action Plan, and therefore the Agreement.

## SUMMARY OF CHANGES

The following summarizes the changes made to Appendices B, C, D, and E as part of the Calendar Year 1990 annual update:

### Appendix B- Listing of Treatment, Storage, and Disposal Groups/Units

1. Deleted TSD Group S-2-6, 2727-WA SRE Sodium Storage Building, and TSD Group S-3-3, 332 Storage Facility. These facilities were proposed along with three other TSD Groups for withdrawal of Part A permit applications in accomplishment of Milestone M-20-45. Ecology approved the withdrawal of these two facilities, but requested additional information on the remaining three.
2. Added three additional units to TSD Group TS-2-3, B Plant, based on submittal of a revised Part A Permit Application.
3. Corrected the "Planned Action" for TSD Group TS-3-1, 300 Area Waste Acid System, from "Operating Permit" to "Closure", consistent with milestone M-20-10.
4. Revised "Planned Action" for TSD Group S-3-1, 303-K Contaminated Waste Storage Facility, from "Operating Permit" to "Closure". The plan is to "Clean Close" the facility in accordance with the Agreement, and then reuse the facility as a "Less than 90 Days Storage Facility".

### Appendix C- Prioritized Listing of Operable Units

1. Incorporated approved change package transferring the 241-TX-302B Catch Tank from operable unit 200-TP-5 to operable unit 200-TP-2.
2. Added 241-CX-71 Storage Tank to operable unit 200-SO-1.
3. Revised priority of Operable Unit 100-FR-1 from 9 to 10, and priority of Operable Unit 100-NR-3 from 10 to 9. This was done to allow 100-NR-3 to be investigated concurrently with an adjacent Operable Unit 100-NR-1, which is priority 8.

### Appendix D- Work Schedule

In accordance with section 11.3 of the Agreement Action Plan, the Work Schedule has been updated to reflect an additional year (Calendar Year 1996) and has been expanded to show additional target dates in the current year (1990) and the next year (1991). Milestone changes which have been processed and approved in accordance with section 12.0 of the Action Plan have been incorporated. Outyear target dates have been adjusted based on current plans. The following discusses the significant changes which have been made:

1. M-01-05 and M-02-02-- Incorporated approved change package which corrected the term "Bi-Annually" to "Biennially". Biennial is the correct term for describing events such as Milestone M-01-05 and M-02-02 which were intended by the three parties to occur once every two years.
2. M-12-00-- Deleted all activities following approval of Work Plans. Characterization and remediation activities are now shown under M-15-00 and M-16-00 respectively.
3. M-12-03-- The review and approval cycle for the 300-FF-1 Operable Unit Work Plan has been extended 4-1/2 months in order to coincide with the review and approval of the 300-FF-5 groundwater operable unit. This is consistent with the need to coordinate groundwater operable units with the initial source operable unit work plan. For example, 100-HR-1 and 100-HR-3 are scheduled concurrently.
4. M-12-05 and M-12-06-- The review and approval cycle for the 100-HR-1 and 100-HR-3 Operable Unit Work Plans has been extended 3 months to allow additional time to ensure that the requirements of both RCRA and CERCLA are satisfied. These are the first operable units being investigated under RCRA Corrective Action authority. CERCLA guidance was used in preparing the work plans.
5. M-12-07-- The review of the 100-DR-1 Operable Unit Work Plan has been deferred until questions associated with the 100-HR-1 and 100-HR-3 Work Plans have been addressed. See Item #4 above. The overall day in approval is expected to be 5-1/2 months.
6. M-12-13 and M-12-14-- Consistent with the change in priorities for Operable Units 100-FR-1 and 100-NR-3, and the approved change package; 1) changed Work Plan submittal date for 100-FR-1 from Feb. 1991 to April 1991, and 2) changed Work Plan submittal date for 100-NR-3 from April 1991 to Dec. 1990.
7. M-15-01-- Schedule for 1100-EM-1 operable unit investigation revised based on approved change which incorporated the schedule contained in the approved work plan.
8. M-17-00-- Significant changes have been made to target dates to better reflect the actual plan. This problem was pointed out in previously issued Quarterly Progress Reports. No milestones have been changed.
9. M-23-00-- Twenty interim milestones have been added based on an approved change package. This is the result of completing milestone M-22-00, which requires that enforceable compliance schedules be established. In addition, numerous target dates have been incorporated reflecting specific actions leading towards completion of the milestones. Incorporation of these interim milestones and target dates replaces Table D-4 which has been deleted from Appendix D.

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 1 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
D-1-1	100-D Ponds (120-D-1)	100-DR-1	X	
T-1-1	105-DR (122-DR-1) Sodium Fire Facility		X	
D-1-2	1301-N/1325-N Liquid Waste Disposal Facilities	100-NR-1	X	
	116-N-1 Crib 116-N-3 Crib			
T-1-2	1324-N/1324-NA Liquid Waste Facilities	100-NR-3	X	
	120-N-1 Pond 120-N-2 Neutralization Unit			
T-1-3**	1706-KE Treatment Facility (116-KE6 A-D):		X	
	1706-KE Waste Accumulation Tank 1706-KE Ion Exchange Column 1706-KE Solidification Unit (Evaporator) 1706-KE Condensate Tank			
T-1-4	183-H Solar Evaporation Basins (116-H-6)	100-HR-1	X	



# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 2 of 11)

Treatment, Storage, and Disposal		Operable Unit (if applicable)	Planned Action	
Group Number	Group/Units		Closure*	Operating Permit
T-2-1	200-E8 Borrow Pit	Demolition Site	X	
T-2-2	200-W Ashpit	Demolition Site	X	
T-2-3***	204-AR Waste Unloading Station			Treatment
D-2-1	2101-M Pond		X	
D-2-2	216-A-10 Crib	200-PO-2	X	
D-2-3	216-A-29 Ditch	200-PO-5	X	
D-2-4	216-A-36B Crib	200-PO-2	X	
D-2-5	216-B-3 Pond System:	200-BP-11	X	
	216-B-3 Pond			
	216-B-3A Pond			
	216-B-3B Pond			
	216-B-3C Pond			
	216-B-3-3 Ditch			

10. M-24-00-- Location and number of groundwater wells for CY 1991 have been included as interim milestones based on an approved change package.

#### **Appendix E- Key Individuals**

1. Steve Wisness has replaced Roger Freeberg as the DOE Project Manger.
2. Tim Nord has replaced Roger Stanley as Ecology Project Manager.
3. Grechen Schmidt has replaced Claire Rowlett as the EPA Community Relations Contact.
4. Mary Kelly has replaced Jerry Gilliland as the Ecology Community Relations Contact.

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 3 of 11)

Treatment, Storage, and Disposal		Operable Unit (if applicable)	Planned Action	
Group Number	Group/Units		Closure*	Operating Permit
S-2-3	Double-Shell Tanks			Storage
	241-AN Farm (7 tanks)			
	241-AP Farm (8 tanks)			
	241-AW Farm (6 tanks)			
	241-AY Farm (2 tanks)			
	241-AZ Farm (2 tanks)			
	241-SY Farm (3 tanks)			
	241-EW-151 Vent Station Catch Tank			
	244-AR Vault			
	244-CR Vault			
	244-TX Receiver Tank			
	244-BX Receiver Tank			
	244-U Vault			
	244-S Receiver Tank			
	244-A Receiver Tank			
D-2-6	216-B-63 Trench	200-BP-8	X	
D-2-7	216-S-10 Pond and Ditch	200-RO-1	X	
	216-S-10D Ditch			
	216-S-10P Pond			

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 4 of 11)

Treatment, Storage, and Disposal		Operable Unit (if applicable)	Planned Action	
Group Number	Group/Units		Closure*	Operating Permit
D-2-8	216-U-12 Crib	200-UP-2	X	
D-2-9	Low-Level Burial Grounds			
	218-E-10			Landfill
	218-E-12B			Landfill
	218-W-3A			Landfill
	218-W-3AE			Landfill
	218-W-4B			Landfill
	218-W-4C			Landfill
	218-W-5			Landfill
	218-W-6			Landfill
S-2-1	Purex Tunnels 1 and 2			Storage
	218-E-14			
	218-E-15			
T-2-4**	221-T Containment System Test Facility		X	
TS-2-1	222-S Laboratories Treatment Tanks and Storage Building			
	222-S Storage Pad			Storage
	*** 219-S Hot Waste Facility Tank 102			Treatment
	*** 219-S Hot Waste Facility Tank 103			Treatment

# APPENDIX B

## Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 5 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
S-2-2	224-T Transuranic Storage and Assay Facility (TRUSAF)			Storage
S-2-4	Single-Shell Tanks		X	
	241-A Farm (6 tanks)	200-PO-3		
	241-AX Farm (4 tanks)	200-PO-3		
	241-B Farm (16 tanks)	200-BP-7		
	241-BX Farm (12 tanks)	200-BP-7		
	241-BY Farm (12 tanks)	200-BP-7		
	241-C Farm (16 tanks)	200-PO-3		
	241-S Farm (12 tanks)	200-RO-4		
	241-SX Farm (15 tanks)	200-RO-4		
	1241-T Farm (16 tanks)	200-TP-6		
	241-TX Farm (18 tanks)	200-TP-5		
	241-TY Farm (6 tanks)	200-TP-5		
	241-U Farm (16 tanks)	200-UP-3		
T-2-5***	241-Z Treatment Tank (D-5)			Treatment
T-2-6	242-A Evaporator			Treatment
S-2-5	2727-S Nonradioactive Dangerous Waste Storage Facility		X	

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 6 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
TS-2-2	Hexone Storage and Treatment		X	
	276-S-141 Tank			
	276-S-142 Tank			
	Railcar Storage Tanks (Future)			
	Distillation System (Future)			
	Incinerator (Future)			
T-3-1	300 Area Solvent Evaporator		X	
TS-3-1	300 Area Waste Acid System		X	
	313 Building Waste Acid Neutralization Tank			
	313 Building Centrifuge			
	313 Filter Press			
	333 Building Chromium Treatment Tanks (2 tanks)			
	334-A Waste Acid Storage Tanks (3 tanks)			
	***311 Neutralized Waste Tanks (2 tanks)			

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 7 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
S-3-1	303-K Contaminated Waste Storage Facility		X	
T-3-2	303-M Uranium Oxide Facility			Treatment
TS-3-2	304 Concretion Facility and Storage Area		X	
	304 Concretion Facility 304 Storage Area			
S-3-2	305-B Storage Facility			Storage
D-3-1	300 Area Process Trenches (316-5)	300-FF-1	X	
T-3-3**	324 Sodium Removal Pilot Plant			Treatment
T-3-4	325 Waste Treatment Facility			Treatment

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 8 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
TS-3-3	3718-F Alkali Metal Treatment and Storage Facility			
	3718-F Burn Shed			Treatment
	3718-F Treatment Tank #1			Treatment
	3718-F Treatment Tank #2			Treatment
	3718-F Alkali Metal Treatment Facility Storage			Storage
T-4-1	400 Area Maintenance and Storage Facility (MASF)			Treatment
S-4-1	4843 FFTF Sodium Storage Facility			Storage
D-6-1	600 Area Nonradioactive Dangerous Waste Landfill	200-IU-3	X	
S-6-1	616 Nonradioactive Dangerous Waste Storage Facility			Storage
TS-2-3	B Plant			
	B Plant Waste Concentrator			Treatment
	B Plant Settle and Decant Tank			Treatment
	B Plant Filter			Treatment
	B Plant Radioactive Organic Waste Solvent Tank #1			Storage



# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 9 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
	B Plant Radioactive Organic Waste Solvent Tank #2			Storage
	B Plant Radioactive Organic Waste Solvent Tank #3			Storage
	B Plant Radioactive Organic Waste Solvent Tank #4			Storage
	B Plant Radioactive Organic Waste Solvent Tank #5			Storage
	B Plant Radioactive Organic Waste Solvent Tank #6			Storage
	B Plant Radioactive Organic Waste Solvent Tank #7			Storage
	B Plant Storage Area			Storage
	B Plant Waste Piles			Storage
T-X-1	Biological Treatment Test Facilities			Treatment
TD-2-1	Grout			
	Grout Treatment Facility			Treatment
	Grout Treatment Facility Landfill			Treatment/Landfill
TS-2-4	Hanford Central Waste Complex			
	Waste Receiving and Processing (WRAP) Facility (Future)			Treatment
	Radioactive Mixed Waste Storage Facility			Storage

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 10 of 11)

Treatment, Storage, and Disposal		Operable Unit (if applicable)	Planned Action	
Group Number	Group/Units		Closure*	Operating Permit
TS-2-5	Hanford Waste Vitrification Plant (HWVP) (Future)			Treatment/Storage
T-X-2	Physical and Chemical Treatment Test Facilities			Treatment
TS-2-6	Purex			
	*** Neutralization Tank E-5			Treatment
	*** E-F11 Concentrator			Treatment
	*** Neutralization Tank G-7			Treatment
	Ammonia Distillate Treatment System (Future Tank)			Treatment
	*** Neutralization Tank F-18			Treatment
	*** Neutralization Tank F-15			Treatment
	*** Neutralization Tank F-16			Treatment
	*** Neutralization Tank U3			Treatment
	*** Neutralization Tank U4			Treatment
	Purex Waste Piles			Storage
TS-3-4	Simulated High-Level Waste Slurry Treatment and Storage		X (or)	Treatment/Storage

# APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 11 of 11)

<u>Treatment, Storage, and Disposal</u>		Operable Unit (if applicable)	<u>Planned Action</u>	
Group Number	Group/Units		Closure*	Operating Permit
T-2-7***	T Plant Treatment Tank			Treatment
T-X-3	Thermal Treatment Test Facilities			Treatment
T-11-1	1100 Area Hanford Patrol Academy Demolition Area			Treatment
* Post-Closure Permit required if closed as a land disposal unit in accordance with Subsection 6.3.3. ** Part A permit application may be withdrawn because unit(s) never handled or never will handle hazardous waste. *** Part A permit application may be withdrawn due to reclassification of unit(s) as treatment by generator.				

# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 1 of 28)

Priority	Operable Unit	Title of Units	Unit Type	Lead Regulatory Agency	Unit Category
1	1100-EM-1	1100-1	Acid Pit	EPA	CPP
		1100-2	Solvent Pit		CPP
		1100-3	Antifreeze Pit		CPP
		Horn Rapids Disposal	Landfill		CPP
		1100-4	Antifreeze Tank		CPP
		UN-1100-5	Spill		CPP
		UN-1100-6	Spill		CPP
2	300-FF-1 (GW addressed by 300-FF-5)	300 Ash Pits	Pit	EPA	CPP
		300 Filter Backwash Pond	Pond		CPP
		300 Retired Filter Backwash	Pond		CPP
		300 Retired RLWS*	Sewer		CPP
		300 Area RLWS* and 340 complex	Sewer		CPP
		300 Area sanitary sewer system	Sewer		CPP
		307	Retention Basin		CPP
		316-1	Pond		CPP
		316-2	Pond		CPP
		316-3	Trench		CPP
		316-5	Trench		TSD (D-3-1)
		(300 Area Process Trenches)			
		618-12	Burial Ground		CPP
		618-4	Burial Ground		CPP
		618-5	Burial Ground		CPP
		UN-300-1	Spill		CPP
		UN-300-11	Spill		CPP
		UN-300-14	Spill		CPP
		UN-300-2	Spill		CPP
		UN-300-41	Spill		CPP
2A	300-FF-5 (GW Operable Unit [O.U.])	300-FF-1	Source O.U.	EPA	CPP
		300-FF-2	Source O.U.		CPP
		300-FF-3	Source O.U.		CPP
3	200-BP-1	216-B-43	Crib	EPA	CPP
		216-B-44	Crib		CPP
		216-B-45	Crib		CPP
		216-B-46	Crib		CPP
		216-B-47	Crib		CPP
		216-B-48	Crib		CPP
		216-B-49	Crib		CPP

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

\*RLWS = Radioactive Liquid Waste Sewer

# APPENDIX C

Prioritized Listing of Operable Units. (sheet 2 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-BP-1 (Continued)	216-B-50 216-B-57 216-B-61 UN-200-E-110 UN-200-E-63 UN-200-E-9	Crib Crib Crib Spill Spill Spill		CPP CPP CPP CPP CPP CPP
4	100-HR-1 (GW addressed by 100-HR-3)	116-H-1 116-H-2 116-H-3 116-H-4 116-H-5 116-H-6 (183-H) 116-H-7 116-H-9 1607-H2 1607-H3	Trench Trench French Drain Crib Outfall Structure Retention basin Retention basin Crib Septic Tank Septic Tank	Ecology	RPP RPP RPP RPP RPP TSD (T-1-4) RPP RPP RPP RPP
4A	100-HR-3 (GW O.U.)	100-HR-1 100-HR-2 100-DR-1 100-DR-2 100-DR-3	Source O. U. Source O. U. Source O. U. Source O. U. Source O. U.	Ecology	RPP RPP RPP RPP RPP
5	100-DR-1 (GW addressed by 100-HR-3)	116-D-1A 116-D-1B 116-D-2 116-D-3 116-D-4 116-D-5 116-D-6 116-D-7 116-D-9 116-DR-1 116-DR-2 116-DR-5 116-DR-9	Trench Trench Crib French Drain French Drain Outfall Structure French Drain Retention basin Crib Trench Trench Outfall Structure Retention basin	Ecology	RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP

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TSD = Treatment, Storage, and Disposal

## APPENDIX C

Prioritized Listing of Operable Units. (sheet 3 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	100-DR-1	120-D-1	Ponds		TSD (D-1-1)
	(continued)	126-D-1	Ash pit		RPP
		130-D-1	Storage tank		RPP
		1607-D2	Septic tank		RPP
		1607-D4	Septic tank		RPP
		1607-D5	Septic tank		RPP
6	100-BC-1	116-B-1	Trench	EPA	CPP
	(GW addressed	116-B-10	French drain		CPP
	by 100-BC-5)	116-B-11	Retention basin		CPP
		116-B-12	Crib		CPP
		116-B-2	Trench		CPP
		116-B-3	Crib		CPP
		116-B-4	French Drain		CPP
		116-B-5	Crib		CPP
		116-B-6A	Crib		CPP
		116-B-6B	Crib		CPP
		116-B-7	Outfall Structure		CPP
		116-B-8	Outfall Structure		CPP
		116-B-9	French Drain		CPP
		116-C-1	Trench		CPP
		116-C-5	Retention basin		CPP
		118-B-5	Burial Ground		CPP
		118-B-7	Burial Ground		CPP
		120-B-1	Sump		CPP
		126-B-1	Ash pit		CPP
		128-B-1	Burning pit		CPP
		1607-B1	Septic Tank		CPP
		1607-B2	Septic Tank		CPP
		1607-B3	Septic Tank		CPP
		1607-B4	Septic Tank		CPP
		1607-B5	Septic Tank		CPP
		1607-B6	Septic Tank		CPP
		1607-B7	Septic Tank		CPP

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 4 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
6A	100-BC-5 (GW O.U.)	100-BC-1 100-BC-2 100-BC-3 100-BC-4	Source O. U. Source O. U. Source O. U. Source O. U.	EPA	CPP CPP CPP CPP
7	100-KR-1 (GW addressed by 100-KR-4)	116-KE-4 116-KW-3 116-K-1 116-K-2 116-K-3	Retention Basin Retention Basin Crib Trench Outfall Structure	EPA	CPP CPP CPP CPP CPP
7A	100-KR-4 (GW O.U.)	100-KR-1 100-KR-2 100-KR-3	Source O. U. Source O. U. Source O. U.	EPA	CPP CPP CPP
8	100-NR-1	116-N-1 (1301-N) 116-N-2 116-N-3 (1325-N) 124-N-4 128-N-1 UN-100-N-13 UN-100-N-17 UN-100-N-2 UN-100-N-20 UN-100-N-24 UN-100-N-26 UN-100-N-31 UN-100-N-9	Crib Storage Tank Crib Septic Tank Burning Pit Spill Spill Spill Spill Spill Spill Spill Spill	Ecology	TSD (D-1-2) RPP TSD (D-1-2) RPP RPP RPP RPP RPP RPP RPP RPP RPP
9	100-NR-3	120-N-1 (1324-N) 120-N-2 (1324-NA) 120-N-3 120-N-5 120-N-6 120-N-7 120-N-8 124-N-1 124-N-10 124-N-2 124-N-5 124-N-6 124-N-7 124-N-8 124-N-9 130-N-1 UN-100-N-11 UN-100-N-15	Pond Neutralization unit French Drain Tank French Drain French Drain French Drain Septic Tank Septic Tank Septic Tank Septic Tank Septic Tank Septic Tank Septic Tank Septic Tank Septic Tank Pond Spill Spill	Ecology	TSD (T-1-2) TSD (T-1-2) RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP

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# APPENDIX C

Prioritized Listing of Operable Units. (sheet 5 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	100-NR-3 (Continued)	UN-100-N-18	Spill		RPP
		UN-100-N-19	Spill		RPP
		UN-100-N-21	Spill		RPP
		UN-100-N-22	Spill		RPP
		UN-100-N-23	Spill		RPP
		UN-100-N-25	Spill		RPP
		UN-100-N-33	Spill		RPP
		UN-100-N-34	Spill		RPP
		UN-100-N-4	Spill		RPP
		UN-100-N-5	Spill		RPP
		UN-100-N-6	Spill		RPP
		UN-100-N-8	Spill		RPP
		UN-600-17	Spill		RPP
10	100-FR-1	116-F-1	Trench	EPA	CPP
		116-F-10	French Drain		CPP
		116-F-11	French Drain		CPP
		116-F-12	French Drain		CPP
		116-F-13	French Drain		CPP
		116-F-14	Retention basin		CPP
		116-F-2	Trench		CPP
		116-F-3	Trench		CPP
		116-F-4	Crib		CPP
		116-F-5	Crib		CPP
		116-F-6	Trench		CPP
		116-F-7	French Drain		CPP
		116-F-8	Outfall Structure		CPP
		116-F-9	Trench		CPP
		1607-F2	Septic Tank		CPP
		1607-F3	Septic Tank		CPP
		1607-F4	Septic Tank		CPP
		1607-F5	Septic Tank		CPP
		1607-F6	Septic Tank		CPP
		UN-100-F-1	Spill		CPP

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 6 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
11	200-UP-2	200 West constr. surface laydown area	Burial ground	Ecology	CPP
		207-U	Retention Basin		CPP
		216-U-1&2	Crib		CPP
		216-U-12	Crib		TSD (D-2-8)
		216-U-14	Ditch		CPP
		216-U-15	Trench		CPP
		216-U-16	Crib		CPP
		216-U-17	Crib		CPP
		216-U-3	French Drain		CPP
		216-U-4	Reverse Well		CPP
		216-U-4A	French Drain		CPP
		216-U-4B	French Drain		CPP
		216-U-5	Trench		CPP
		216-U-6	Trench		CPP
		216-U-7	French Drain		CPP
		216-U-8	Crib		CPP
		241-U-151	Diversion Box		CPP
		241-U-152	Diversion Box		CPP
		241-U-302	Catch tank		CPP
		241-U-361	Settling Tank		CPP
		241-UX-154	Diversion Box		CPP
		241-UX-302	Catch Tank		CPP
		241-WR Vault	Vault		CPP
		2607-W5	Septic Tank		CPP
		2607-W7	Septic Tank		CPP
		UN-200-W-101	Spill		CPP
		UN-200-W-117	Spill		CPP
		UN-200-W-118	Spill		CPP
		UN-200-W-125	Spill		CPP
		UN-200-W-138	Spill		CPP
		UN-200-W-19	Spill		CPP
		UN-200-W-22	Spill		CPP
		UN-200-W-33	Spill		CPP
		UN-200-W-39	Spill		CPP
		UN-200-W-46	Spill		CPP
		UN-200-W-48	Spill		CPP
		UN-200-W-55	Spill		CPP
		UN-200-W-6	Spill		CPP
		UN-200-W-60	Spill		CPP
		UN-200-W-69	Spill		CPP
		UN-200-W-78	Spill		CPP
		UN-200-W-86	Spill		CPP

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# APPENDIX C

Prioritized Listing of Operable Units. (sheet 7 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
12	100-BC-2 (GW addressed by 100-BC-5)	116-C-2A	Crib	EPA	CPP
		116-C-2B	Crib		CPP
		116-C-2C	Crib		CPP
		116-C-3	Outfall Structure		CPP
		118-C-2	Burial Ground		CPP
		1607-B8	Septic Tank		CPP
13	200-BP-5	216-B-5	Reverse Well	EPA	CPP
		216-B-56	Crib		CPP
		216-B-59A	Trench		CPP
		216-B-59B	Retention Basin		CPP
		216-B-9TF	Crib		CPP
		241-B-154	Diversion Box		CPP
		241-B-302-B	Catch Tank		CPP
		241-B-361	Settling Tank		CPP
		UN-200-E-45	Spill		CPP
		UN-200-E-7	Spill		CPP
14	100-DR-2 (GW Addressed by 100-HR-3)	116-DR-3	Trench	Ecology	RPP
		116-DR-4	Crib		RPP
		116-DR-6	Trench		RPP
		116-DR-7	Crib		RPP
		116-DR-8	Crib		RPP
		118-D-5	Burial Ground		RPP
		1607-D3	Septic Tank		RPP
15	200-ZP-1	216-Z-1&2TF	Crib	EPA	CPP
		216-Z-12	Crib		CPP
		216-Z-13	French Drain		CPP
		216-Z-14	French Drain		CPP
		216-Z-15	French Drain		CPP
		216-Z-18	Crib		CPP
		216-Z-1A	Tile Field		CPP
		216-Z-3	Crib		CPP
		241-Z-361	Settling Tank		CPP
		2607-Z	Septic tank		CPP
		UN-200-W-103	Spill		CPP
		UN-200-W-11	Spill		CPP
		UN-200-W-23	Spill		CPP
		UN-200-W-74	Spill		CPP
		UN-200-W-75	Spill		CPP
		UN-200-W-89	Spill		CPP

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 8 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-ZP-1 (Continued)	UN-200-W-90 UN-200-W-91 UN-200-W-159	Spill Spill Spill		CPP CPP CPP
16	100-KR-2 (GW Addressed by 100-KR-4)	130-KE-1 130-KW-1 116-KE-1 116-KE-2 116-KE-3 116-KW-1 116-KW-2 118-K-1 1607-K4 1607-K6 130-KE-2 130-kW-2 130-K-1 130-K-2 UN-100-K-1	Storage tank Storage tank Crib Crib French Drain Crib French Drain Burial Ground Septic Tank Septic Tank Storage Tank Storage Tank Storage Tank Storage Tank Spill	EPA	CPP CPP CPP CPP CPP CPP CPP CPP CPP CPP CPP CPP CPP CPP CPP
17	200-BP-4	216-B-11A&B 216-B-51 216-B-7A&B 216-B-8TF	Reverse Well French drain Crib Crib		
18	200-BP-11	216-B-3 (B Pond) 216-B-3-1 216-B-3-2 216-B-3-3 216-B-3A 216-B-3B 216-B-3C 216-E-25 UN-200-E-14 UN-200-E-92	Pond Ditch Ditch Ditch Pond Pond Pond Pond Spill Spill	Ecology	TSD (D-2-5) RPP RPP TSD (D-2-5) TSD (D-2-5) TSD (D-2-5) TSD (D-2-5) RPP RPP RPP
19	200-PO-2	216-A-10 216-A-15 216-A-2 216-A-21 216-A-27 216-A-31 216-A-36A 216-A-36B	Crib French Drain Crib Crib Crib Crib Crib Crib		TSD (D-2-2)      TSD (D-2-4)

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 9 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-PO-2 (Continued)	216-A-38-1 216-A-4 216-A-45 216-A-5 UN-200-E-117 UN-200-E-13 UN-200-E-22 UN-200-E-25 UN-200-E-39 UN-200-E-40 UN-200-E-97	Crib Crib Crib Crib Spill Spill Spill Spill Spill Spill Spill		
20	200-PO-5	207-A 216-A-1 216-A-16 216-A-17 216-A-18 216-A-19 216-A-20 216-A-23A 216-A-23B 216-A-24 216-A-29 216-A-34 216-A-7 216-A-8 216-A-524 241-A-302B 2607-EC UN-200-E-56 UN-200-E-67	Retention Basin Crib French Drain French Drain Trench Trench Trench French Drain French Drain Crib Ditch Ditch Crib Crib Control Structure Catch Tank Septic Tank Spill Spill		TSD (D-2-3)
B	100-BC-3 (GW Addressed by 100-BC-5)	118-B-2 118-B-3 118-B-4 118-B-6	Burial Ground Burial Ground Burial Ground Burial Ground	EPA	CPP CPP CPP CPP
B	100-BC-4 (GW addressed by 100-BC-5)	118-B-1 118-C-1 1607-B9	Burial Ground Burial Ground Septic Tank	EPA	CPP CPP CPP

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 10 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
B	100-DR-3 (GW Addressed by 100-HR-3)	118-D-1	Burial Ground	Ecology	RPP
		118-D-2	Burial Ground		RPP
		118-D-3	Burial Ground		RPP
		118-D-4	Burial Ground		RPP
		118-DR-1	Burial Ground		RPP
		128-D-1	Burning pit		RPP
		1607-D1	Septic Tank		RPP
B	100-FR-2	118-F-1	Burial Ground	Ecology	RPP
		118-F-2	Burial Ground		
		118-F-3	Burial Ground		
		118-F-4	Burial Ground		
		118-F-5	Burial Ground		
		118-F-6	Burial Ground		
		118-F-7	Burial Ground		
		126-F-1	Ash pit		
		128-F-1	Burning pit		
		1607-F1	Septic Tank		
B	100-HR-2 (GW Addressed by 100-HR-3)	118-H-1	Burial Ground	Ecology	RPP
		118-H-2	Burial Ground		RPP
		118-H-3	Burial Ground		RPP
		118-H-4	Burial Ground		RPP
		118-H-5	Burial ground		RPP
		126-H-1	Ash pit		RPP
		128-H-1	Burning pit		RPP
		1607-H1	Septic Tank		RPP
		1607-H4	Septic Tank		RPP
B	100-KR-3 (GW Addressed by 100-KR-4)	120-KE-1	Reverse Well	EPA	CPP
		120-KW-2	French Drain		CPP
		120-KE-3	Trench		CPP
		120-KE-2	French Drain		CPP
		120-KW-5	Storage Tank		CPP
		120-KE-6	Storage Tank		CPP
		120-KW-1	Reverse well		CPP
		128-K-1	Burning pit		CPP
		130-K-3	Storage tank		CPP

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 11 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	100-KR-3 (Continued)	1607-K1 1607-K2 1607-K3 1607-K5	Septic Tank Septic Tank Septic Tank Septic Tank		CPP CPP CPP CPP
B	100-NR-2	116-N-4 118-N-1 124-N-3 UN-100-N-1 UN-100-N-10 UN-100-N-12 UN-100-N-14 UN-100-N-29 UN-100-N-3 UN-100-N-30 UN-100-N-32 UN-100-N-35 UN-100-N-7	Storage Tank Silos Septic Tank Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill		
B	100-IU-1	Army Munitions Burial Site Riverland Railroad Pit Car Wash Pit	Burial Ground		
B	200-BP-2	216-B-14 216-B-15 216-B-16 216-B-17 216-B-18 216-B-19 216-B-20 216-B-21 216-B-22 216-B-23 216-B-24 216-B-25 216-B-26 216-B-27 216-B-28 216-B-29	Crib Crib Crib Crib Crib Crib Trench Trench Trench Trench Trench Trench Trench Trench Trench Trench Trench		

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Prioritized Listing of Operable Units. (sheet 12 of 28)

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 13 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-PO-1 (Continued)	UN-200-E-42 UN-200-E-49 UN-200-E-58 UN-200-E-60 UN-200-E-65 UN-200-E-88 UN-200-E-96 UN-200-E-114 UN-200-E-142	Spill Spill Spill Spill Spill Spill Spill Spill Spill		
B	200-PO-4	216-A-30 216-A-37-1 216-A-37-2 216-A-42 216-A-6 2607-EL UN-200-E-66	Crib Crib Crib Retention Basin Crib Septic Tank Spill		
B	200-SO-1	200-E Power House Ditch 216-C-1 216-C-10 216-C-2 216-C-3 216-C-4 216-C-5 216-C-6 216-C-7 216-C-9 218-C-9 241-CX-70 241-CX-71 241-CX-72 2607-E5 2607-E7A Hot Semi-Works Valve Pit UN-200-E-36 UN-200-E-37 UN-200-E-98 UN-200-E-141	Ditch  Crib Crib Reverse Well Crib Crib Crib Crib Crib Crib Pond Burial Ground Storage Tank Storage Tank Storage Tank Septic Tank Septic Tank Valve Pit  Spill Spill Spill Spill		

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# APPENDIX C

Prioritized Listing of Operable Units. (sheet 14 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
B	200-TP-1	216-T-21	Trench		
		216-T-22	Trench		
		216-T-23	Trench		
		216-T-24	Trench		
		216-T-25	Trench		
		216-T-32	Crib		
		216-T-36	Crib		
		216-T-5	Trench		
		216-T-7TF	Crib		
B	200-TP-2	2607-WT	Septic Tank		
		200-W Powerhouse Pond	Pond		
		216-T-13	Trench		
		216-T-18	Crib		
		216-T-19TF	Crib		
		216-T-20	Trench		
		216-T-26	Crib		
		216-T-27	Crib		
		216-T-28	Crib		
		216-T-31	French Drain		
		241-TX-152	Diversion Box		
		241-TX-155	Diversion Box		
		241-TX-302B	Catch Tank		
		UN-200-W-113	Spill		
		UN-200-W-131	Spill		
		UN-200-W-135	Spill		
		UN-200-W-14	Spill		
		UN-200-W-28	Spill		
		UN-200-W-5	Spill		
		UN-200-W-99	Spill		
B	200-TP-4	216-T-1	Ditch		
		216-T-10	Trench		
		216-T-11	Trench		
		216-T-2	Reverse Well		
		216-T-29	Crib		
		216-T-3	Reverse Well		
		216-T-33	Crib		
		216-T-34	Crib		
		216-T-35	Crib		
		216-T-8	Crib		
		216-T-9	Trench		
		218-W-7	Burial Ground		
		218-W-8	Burial Ground		
		241-T-361	Settling Tank		

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# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 15 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-TP-4 (Continued)	241-TX-154 241-TX-302C 2607-W3 2607-W4 UN-200-W-102 UN-200-W-137 UN-200-W-2 UN-200-W-21 UN-200-W-27 UN-200-W-3 UN-200-W-38 UN-200-W-4 UN-200-W-58 UN-200-W-65 UN-200-W-67 UN-200-W-73 UN-200-W-77 UN-200-W-8 UN-200-W-98	Diversion Box Catch Tank Septic Tank Septic Tank Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill		
B	200-ZP-2	207-Z 216-Z-10 216-Z-16 216-Z-17 216-Z-4 216-Z-5 216-Z-6 216-Z-7 216-Z-8 216-Z-9 2607-W8 2607-WA 2607-Z8 UN-200-W-130 UN-200-W-79	Retention Basin Reverse Well Crib Trench Trench Crib Crib Crib French Drain Trench Septic Tank Septic Tank Septic Tank Spill Spill		
B	200-IU-3	Central Landfill Original Central Landfill NRDW* Landfill 6607-1 6607-2 UN-600-12	Landfill Landfill Landfill Septic Tank Septic Tank Spill		TSD (D-6-1)

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

\*Nonradioactive Dangerous Waste

# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 16 of 28)

Priority	Operable Unit	Title of Units	Unit Type	Lead Regulatory Agency	Unit Category
B	300-FF-2 (GW Addressed by 300-FF-5)	300 Vitrification Test Site	Test treatment Facility	EPA	CPP
		618-1	Burial Ground		CPP
		618-13	Burial Ground		CPP
		618-2	Burial Ground		CPP
		618-3	Burial Ground		CPP
		618-7	Burial Ground		CPP
		618-8	Burial Ground		CPP
		618-9	Burial Ground		CPP
B	300-FF-3 (GW Addresseed by 300-FF-5)	300 Interim Filter Backwash Disposal	Pond	EPA	CPP
		309-TW-1	Storage Tank		CPP
		309-TW-2	Storage Tank		CPP
		309-TW-3	Storage Tank		CPP
		315 Retired Drain Field	Drain Field		CPP
		323 Tank 1	Tank		CPP
		323 Tank 2	Tank		CPP
		323 Tank 3	Tank		CPP
		323 Tank 4	Tank		CPP
		331 Drain field	Drain Field		CPP
		331 Trench 1	Trench		CPP
		331 Trench 2	Trench		CPP
		335 & 336 Retired Drain Fields	Drain Fields		CPP
		618-6	Burial Ground		CPP
		UN-300-10	Spill		CPP
		UN-300-12	Spill		CPP
		UN-300-13	Spill		CPP
		UN-300-17	Spill		CPP
		UN-300-18	Spill		CPP
		UN-300-39	Spill		CPP
		UN-300-4	Spill		CPP
		UN-300-40	Spill		CPP
		UN-300-42	Spill		CPP
		UN-300-43	Spill		CPP
		UN-300-44	Spill		CPP
		UN-300-45	Spill		CPP

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

# APPENDIX C

Prioritized Listing of Operable Units. (sheet 17 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	300-FF-3 (Continued)	UN-300-5 UN-300-7	Spill Spill		CPP CPP
C	100-IU-2	East White Bluffs Landfill White Bluffs Landfill J. A. Jones #2	Landfill  Landfill Landfill		
C	100-IU-3	USBR* 2,4-D Burial Site Wahulke Slope NIKE Missile Base	Landfill  Missile Base		
C	1100-EM-2	1100 Hoist Rams 1100 HWSA** 1100 Steam Pad Tank #2 1100 Steam Pad Tank #3 1100 Used Oil Tank #4 1100 Used Oil Tank #5 1100 Used Oil Tank #6 700 Area Waste Solvent Tank	Storage Tank Staging Area Storage Tank  Storage Tank  Storage Tank Storage Tank Storage Tank Storage Tank Storage Tank		
C	1100-EM-3	1208 HWSA 1226 HWSA 1234 Storage Yard 1240 HWSA Jones Yard HWSA Underground Used Oil Tank UN-3000-1	Staging Area Staging Area Storage facility  Staging Area Staging Area  Storage Tank Spill		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

\*U.S. Bureau of Reclamation

\*\*Hazardous Waste Staging Area

# APPENDIX C

Prioritized Listing of Operable Units. (sheet 18 of 28)

Priority	Operable Unit	Title of Units	Unit Type	Lead Regulatory Agency	Unit Category
C	1100-IU-1	6652-C SSL* Active Septic Tank 6652-C SSL* Inactive Septic Tank 6652-I ALE** Septic Tank 6652-G ALE Septic Tank Rattlesnake Mtn. NIKE Missile Base	Septic Tank Septic Tank Septic Tank Septic Tank Missile Base		
C	200-BP-10	218-E-2 218-E-2A 218-E-4 218-E-5 218-E-5A 218-E-9 UN-200-E-112 UN-200-E-61 UN-200-E-95	Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Spill Spill Spill		
C	200-BP-3	216-B-35 216-B-36 216-B-37 216-B-38 216-B-39 216-B-40 216-B-41 216-B-42	Trench Trench Trench Trench Trench Trench Trench Trench		
C	200-BP-6	216-B-10A 216-B-10B 216-B-13 216-B-4 216-B-6 216-B-60 218-E-6 218-E-7 241-BX-154 241-BX-155 241-BX-302B 241-BX-302C	Crib Crib French Drain Reverse Well Reverse Well Crib Burial Ground Burial Ground Diversion Box Diversion box Catch Tank Catch Tank		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

\* = Space Science Laboratory

\*\* = Arid Lands Ecology Reserve

# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 19 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-BP-6 (Continued)	241-ER-152 2607-E3 2607-E4 Tile Field South of 218-E-4 UN-200-E-1 UN-200-E-103 UN-200-E-2 UN-200-E-3 UN-200-E-41 UN-200-E-44 UN-200-E-52 UN-200-E-140 UN-200-E-54 UN-200-E-55 UN-200-E-69 UN-200-E-80 UN-200-E-85 UN-200-E-87 UN-200-E-90	Diversion Box Septic Tank Septic Tank Tile Field Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill		
C	200-BP-8	207-B 216-B-2-1 216-B-2-2 216-B-2-3 216-B-63 2607-E9	Retention Basin Ditch Ditch Ditch Trench Septic Tank		TSD (D-2-6)
C	200-BP-9	200 Area construction pit 216-B-12 216-B-55 216-B-62 216-B-64 241-ER-151 241-ER-311 UN-200-E-64	Landfill Crib Crib Crib Crib Diversion Box Catch Tank Spill		
C	200-NO-1	216-N-1 216-N-2 216-N-3 216-N-4 216-N-5 216-N-6 216-N-7	Pond Trench Trench Pond Trench Pond Trench		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

# APPENDIX C

Prioritized Listing of Operable Units. (sheet 20 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
C	200-PO-6	200-E burning pit 218-E-12A 218-E-8	Pit Burial Ground Burial Ground		
C	200-RO-1	216-S-10D 216-S-10P 216-S-11 216-S-16D 216-S-16P 216-S-17 216-S-172 216-S-19 216-S-25 216-S-5 216-S-6 216-U-9 2607-WZ 2904-S-160 2904-S-170 2904-S-171 UN-200-W-139	Ditch Pond Pond Ditch Pond Pond Control structure Pond Crib Crib Crib Ditch Septic tank Control structure Control structure Control structure Spill		TSD (D-2-7) TSD (D-2-7)
C	200-RO-2	207-S 216-S-1&2 216-S-13 216-S-15 216-S-18 216-S-23 216-S-3 216-S-7 216-S-8 216-S-9 218-W-9 241-S-302A 241-SX-302 UN-200-W-108 UN-200-W-109 UN-200-W-114	Retention Basin Crib Crib Pond Trench Crib French Drain Crib Trench Crib Burial Ground Catch Tank Catch Tank Spill Spill Spill		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

# APPENDIX C

Prioritized Listing of Operable Units. (sheet 21 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-RO-2 (Continued)	UN-200-W-123 UN-200-W-127 UN-200-W-20 UN-200-W-32 UN-200-W-34 UN-200-W-41 UN-200-W-42 UN-200-W-49 UN-200-W-50 UN-200-W-52 UN-200-W-82 UN-200-W-83 UN-200-W-85	Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill Spill		
C	200-RO-3	207-SL 216-S-12 216-S-14 216-S-20 216-S-22 216-S-26 240-S-151 240-S-152 240-S-302 2607-W6 UN-200-W-116 UN-200-W-30 UN-200-W-35 UN-200-W-43 UN-200-W-56 UN-200-W-57 UN-200-W-61 UN-200-W-87	Retention Basin Trench Trench Crib Crib Crib Diversion Box Diversion Box Catch Tank Septic Tank Spill Spill Spill Spill Spill Spill Spill Spill		
C	200-TP-3	207-T 216-T-12 216-T-14 216-T-15 216-T-16 216-T-17 216-T-4-1D 216-T-4-2 216-T-4A 216-T-4B 216-T-6 UN-200-W-63 UN-200-W-7	Retention Basin Trench Trench Trench Trench Trench Ditch Ditch Pond Pond Crib Spill Spill		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal



# APPENDIX C

Prioritized Listing of Operable Units. (sheet 22 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
C	200-UP-1	216-S-21 216-S-4 216-U-10 216-U-11 216-U-13 216-Z-11 216-Z-19 216-Z-1D 216-Z-20 2607-W9 UN-200-W-68	Crib French Drain Pond Ditch Trench Ditch Ditch Ditch Crib Septic Tank Spill		
C	200-ZP-3	218-W-1 218-W-1A 218-W-2 218-W-2A 218-W-3 218-W-4A 218-W-11 2607-WWA Z-Plant Burning Pit UN-200-W-132 UN-200-W-44	Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Septic Tank Pit Spill Spill		
C	200-IU-4	Hanford Townsite Landfill Hanford Trailer Camp Landfill 213 J & K P-11 UN-600-16 UN-600-18	Landfill Landfill Storage facility Crib Spill Spill		
C	300-IU-1	316-4 618-10 618-11 J. A. Jones #1 UN-600-11	Crib Burial Ground Burial Ground Landfill Spill		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 23 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
C	300-FF-4	4713-B discharge	French drain		
		4722-B discharge	French drain		
		4722-C discharge	French drain		
		French drain #10	French drain		
		French drain #10A	French drain		
		French drain #1A	French drain		
		French drain #1B	French drain		
		French drain #2	French drain		
		French drain #3	French drain		
		French drain #4	French drain		
		French drain #5	French drain		
		French drain #6	French drain		
		French drain #7	French drain		
		French drain #8	French drain		
		French drain #9	French drain		
		403 discharge	French drain		
		4721 building	French drain		
		400 Area process pond and sewer	Pond		
		400 Area retired french drains	French drain		
		400 Area retired sanitary pond	Pond		
		400 Area retired septic tanks	Septic tank		
		Sand bottom trench	Trench		
		Sanitary sewer	Sewer		
		Sanitary tile field	Tile field		
		4831 laydown hazardous staging	Staging area		
		UN-400-1	Spill		
D	100-IU-4	Sodium dichromate barrel disposal	Landfill		
D	100-IU-5	White Bluffs pickling acid	Crib		
D	200-SS-1	200-E Powerhouse Ash Pit	Ash pit		
		218-E-3	Burial ground		
		2607-E1	Septic tank		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 24 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-SS-1 (Continued)	2607-E7B 2607-E8 2607-EH 2607-EK 2607-EM 2607-EP 2607-EQ 2607-ER 2607-GF Chemical tile field north of 2703-E	Septic tank Septic tank Septic tank Septic tank Septic tank Septic tank Septic tank Septic tank Septic tank Drain field		
D	200-SS-2	200 West Ash Disposal Basin 200 West Burning Pit 200-W Powerhouse Ash Pit 216-W-LC 2607-W1 2607-W2 UN-200-W-88	Ash pit Ash pit Burning pit Crib Septic Tank Septic Tank Spill		
D	200-IU-1	Exploratory Shaft HWSA Exploratory Shaft Septic Tank 6607-3	Staging Area Septic Tank Septic Tank		
D	200-IU-6	216-A-25 216-N-8	Pond Pond		
D	200-IU-2	NSTF* Septic Tank NSTF* Underground Tank 1607-FSM	Septic Tank Storage Tank Septic Tank		
D	200-IU-5	Batch Plant HWSA 2607-FSN 622-R Old central shop area	Staging Area Septic tank Septic Tank Building		

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

\*Near Surface Test Facility

# APPENDIX C

## Prioritized Listing of Operable Units. (sheet 25 of 28)

Priority	Operable Unit	Title of Units	Unit Type	Lead Regulatory Agency	Unit Category
*	200-BP-7	241-B Tank Farm (16 Units)	Single-Shell Tank	Ecology	TSD (S-2-4)
		241-B-151	Diversion Box		RPP
		241-B-152	Diversion Box		RPP
		241-B-153	Diversion Box		RPP
		241-B-252	Diversion Box		RPP
		241-B-301B	Catch Tank		RPP
		241-BR-152	Diversion Box		RPP
		241-BX Tank Farm (12 units)	Single-Shell Tank		TSD (S-2-4)
		241-BX-153	Diversion Box		RPP
		241-BX-302A	Catch Tank		RPP
		241-BXR-151	Diversion Box		RPP
		241-BXR-152	Diversion Box		RPP
		241-BXR-153	Diversion Box		RPP
		241-BY Tank Farm (12 units)	Single-Shell Tank		TSD (S-2-4)
		241-BYR-152	Diversion Box		RPP
		241-BYR-153	Diversion Box		RPP
		241-BYR-154	Diversion Box		RPP
		242-B-151	Diversion Box		RPP
		244-BXR	Receiving Vault		RPP
		2607-EB	Septic Tank		RPP
		UN-200-E-101	Spill		RPP
		UN-200-E-105	Spill		RPP
		UN-200-E-109	Spill		RPP
		UN-200-E-38	Spill		RPP
		UN-200-E-43	Spill		RPP
		UN-200-E-5	Spill		RPP
		UN-200-E-75	Spill		RPP
		UN-200-E-76	Spill		RPP
		UN-200-E-79	Spill		RPP
		UN-200-E-89	Spill		RPP
*	200-PO-3	216-A-39	Crib	Ecology	RPP
		216-C-8	French Drain		RPP
		241-A Tank Farm (6 units)	Single-Shell Tank		TSD (S-2-4)
		241-A-152	Diversion Box		RPP
		241-A-153	Diversion Box		RPP
		241-A-350	Catch Tank		RPP
		241-A-417	Condensate Tank		RPP
		241-A-A	Diversion Box		RPP
		241-A-B	Diversion Box		RPP

Note: \*This operable unit contains single-shell tanks and is not prioritized with other operable units. Schedules for RFI/CMS work plans and subsequent characterization are being developed as part of the SST system closure/corrective action work plan.

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

# APPENDIX C

Prioritized Listing of Operable Units. (sheet 26 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
200-PO-3 (Continued)		241-AR-151	Diversion box		RPP
		241-AX Tank Farm (4 units)	Single-shell tank		TSD (S-2-4)
		241-AX-151	Diversion box		RPP
		241-AX-152-CT	Catch tank		RPP
		241-AX-152-DS	Diverter station		RPP
		241-AX-155	Diversion box		RPP
		241-AX-501	Valve pit		RPP
		241-AX-A	Diversion box		RPP
		241-AX-B	Diversion box		RPP
		241-C Tank Farm (16 units)	Single-shell tank		TSD (S-2-4)
		241-C-151	Diversion box		RPP
		241-C-152	Diversion box		RPP
		241-C-153	Diversion box		RPP
		241-C-252	Diversion box		RPP
		241-C-301C	Catch tank		RPP
		241-CR-151	Diversion box		RPP
		241-CR-152	Diversion box		RPP
		241-CR-153	Diversion box		RPP
		241-ER-153	Diversion box		RPP
		2607-ED	Septic tank		RPP
		2607-EG	Septic tank		RPP
		2607-EJ	Septic tank		RPP
		UN-200-E-118	Spill		RPP
		UN-200-E-16	Spill		RPP
		UN-200-E-18	Spill		RPP
		UN-200-E-27	Spill		RPP
		UN-200-E-47	Spill		RPP
		UN-200-E-48	Spill		RPP
		UN-200-E-68	Spill		RPP
		UN-200-E-70	Spill		RPP
		UN-200-E-72	Spill		RPP
		UN-200-E-81	Spill		RPP
		UN-200-E-82	Spill		RPP
		UN-200-E-86	Spill		RPP
		UN-200-E-91	Spill		RPP

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

## APPENDIX C

## Prioritized Listing of Operable Units. (sheet 27 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
	200-P0-3 (Continued)	UN-200-E-94	Spill		RPP
		UN-200-E-99	Spill		RPP
		UN-200-E-100	Spill		RPP
		UN-200-E-107	Spill		RPP
*	200-R0-4	241-S Tank Farm (12 units)	Single-shell tank	Ecology	TSD (S-2-4)
		241-S-151	Diversion box		RPP
		241-S-152	Diversion box		RPP
		241-S-302B	Catch tank		RPP
		241-S-A	Valve pit		RPP
		241-S-B	Valve pit		RPP
		241-S-C	Valve pit		RPP
		241-S-D	Valve pit		RPP
		241-SX Tank Farm (15 units)	Single-shell tank		TSD (S-2-4)
		241-SX-151	Diversion box		RPP
		241-SX-152	Diversion box		RPP
		UN-200-W-10	Spill		RPP
		UN-200-W-80	Spill		RPP
		UN-200-W-81	Spill		RPP
*	200-TP-5	241-TX Tank Farm (18 units)	Single-shell tank	Ecology	TSD (S-2-4)
		241-TX-153	Diversion box		RPP
		241-TX-302A	Catch tank		RPP
		241-TXR-152	Diversion box		RPP
		241-TXR-153	Diversion box		RPP
		241-TY Tank Farm (6 units)	Single-shell tank		TSD (S-2-4)
		241-TY-153	Diversion box		RPP
		241-TY-302A	Catch tank		RPP
		241-TY-302B	Catch tank		RPP
		242-T-151	Diversion box		RPP
		2607-WTX	Septic tank		RPP
		UN-200-W-100	Spill		RPP
		UN-200-W-17	Spill		RPP
		UN-200-W-29	Spill		RPP
		UN-200-W-76	Spill		RPP

Note: \*This operable unit contains single-shell tanks and is not prioritized with other operable units. Schedules for RFI/CMS work plans and subsequent characterization are being developed as part of the SST system closure/corrective action work plan.

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

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# APPENDIX C

Prioritized Listing of Operable Units. (sheet 28 of 28)

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
*	200-TP-6	241-T Tank Farm (16 units)	Single-Shell tank	Ecology	TSD (S-2-4)
		241-T-151	Diversion box		RPP
		241-T-152	Diversion box		RPP
		241-T-153	Diversion box		RPP
		241-T-252	Diversion box		RPP
		241-T-301	Catch tank		RPP
		241-T-302	Catch tank		RPP
		241-TR-152	Diversion box		RPP
		241-TR-153	Diversion box		RPP
		UN-200-W-62	Spill		RPP
		UN-200-W-64	Spill		RPP
		UN-200-W-97	Spill		RPP
*	200-UP-3	241-U Tank Farm (16 units)	Single-shell tank	Ecology	TSD (S-2-4)
		241-U-153	Diversion box		RPP
		241-U-252	Diversion box		RPP
		241-U-301	Catch tank		RPP
		241-U-A	Diversion box		RPP
		241-U-B	Diversion box		RPP
		241-U-C	Diversion box		RPP
		241-U-D	Diversion box		RPP
		241-UR-151	Diversion box		RPP
		241-UR-152	Diversion box		RPP
		241-UR-153	Diversion box		RPP
		241-UR-154	Diversion box		RPP
		244-UR	Receiving vault		RPP
		2607-WUT	Septic tank		RPP
		UN-200-W-71	Spill		RPP

Note: \*This operable unit contains single-shell tanks and is not prioritized with other operable units. Schedules for RFI/CMS work plans and subsequent characterization are being developed as part of the SST system closure/corrective action work plan.

CPP = CERCLA Past-Practice

RPP = RCRA Past-Practice

TSD = Treatment, Storage, and Disposal

## APPENDIX D

### Work Schedule

- o Listing of Currently Identified Interim Milestones
- o Time-scaled Logic Networks



Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 1 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-01-00	Complete 14 grout campaigns of double-shell tank waste by September 1994 and maintain currency with waste feed thereafter  The 14 grout campaigns will support the acceleration of the single-shell tank stabilization activities by one year. Additional grout campaigns will allow double-shell tank space to be made available for single-shell tank waste. The number of grout campaigns each year after Sept. 1994 will be dependent upon the availability of grout feed material. Grout campaigns (up to 5 each year) will be conducted when sufficient waste feed is accumulated to fill a grout vault.	Sept. 1994
M-01-01	Complete a total of 3 grout campaigns of double-shell tank wastes (includes one campaign of phosphate-sulfate waste)	Sept. 1991
M-01-02	Complete a total of 6 grout campaigns of double-shell tank wastes	Sept. 1992
M-01-03	Complete a total of 10 grout campaigns of double-shell tank wastes	Sept. 1993
M-01-04	Complete a total of 14 grout campaigns of double-shell tank wastes	Sept. 1994
M-01-05	Commitments for additional grout campaigns after September 1994 will be incorporated as interim milestones	Biennially beginning Sept. 1994
M-02-00	<del>Initiate B Plant operations for pretreatment of double-shell tank waste</del>  Double-shell tank waste pretreatment is required prior to disposal of high-activity tank wastes. The B Plant pretreatment supports the removal, treatment, and final disposal of wastes subject to land disposal restrictions which are stored in double-shell tanks. Removal of the wastes from double-shell tanks and disposal in grout or glass will allow double-shell tank space to be made available for single-shell tank waste.	<del>Oct. 1993</del>

Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 2 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-02-01	Initiate pretreatment of neutralized current acid waste	Oct. 1993
M-02-02	Commitments for pretreatment of additional tank wastes will be incorporated as interim milestones	Biennially beginning CY 1992
M-03-00	Initiate Hanford Waste Vitrification Plant operations  Waste which is pretreated in B Plant will be designated for disposal in either glass or grout. Pending treatment and final disposal, the wastes must be stored in double-shell tanks. Completion of the vitrification plant will enable the pretreated waste to be removed from double-shell tanks, thus allowing double-shell tank space to be made available for single-shell tank waste. The HWVP also supports the removal, treatment, and final disposal of wastes subject to land disposal restrictions which are stored in double-shell tanks. Initiation of operations is defined to be hot startup.	Dec. 1999 <sup>1</sup>
M-03-01	Initiate HWVP construction	July 1991
M-03-02	Complete HWVP construction	June 1998 <sup>1</sup>
M-04-00	Provide annual reports of tank waste treatability studies  Wastes stored in double-shell and single-shell tanks, as well as newly generated wastes destined to be stored in the double-shell tanks, will be studied to determine the most appropriate treatment/disposal method. Studies to determine the long-term feasibility of grout or glass for disposal of these wastes are included in the scope of this milestone.	Annually Beginning Sept. 1990
M-04-01	Provide letter to Ecology describing work scope to be included in Sept. 1990 report	Dec. 1989

<sup>1</sup>The U.S. Department of Energy, Richland Operations Office commits to request sufficient money in FY 1991 to meet milestone M-03-00.

Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 3 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-05-00	Complete single-shell tank interim stabilization  Complete the single-shell tank interim stabilization activities (removal of pumpable liquid from those 51 single-shell tanks not yet stabilized) for all single-shell tanks except 241-C-105 and 241-C-106. All 149 tanks, including 241-C-105 and 241-C-106 will be interim stabilized and interim isolated by September 1996.	Sept. 1995
M-05-01	Interim stabilize 3 single-shell tanks	Sept. 1989
M-05-02	Interim stabilize an additional 5 single-shell tanks	Sept. 1990
M-05-03	Interim stabilize an additional 9 single-shell tanks	Sept. 1991
M-05-04	Interim stabilize an additional 9 single-shell tanks	Sept. 1992
M-05-05	Interim stabilize an additional 9 single-shell tanks	Sept. 1993
M-05-06	Interim stabilize an additional 9 single-shell tanks	Sept. 1994
M-05-07	Interim stabilize an additional 5 single-shell tanks (stabilization complete except for 241-C-105 and 241-C-106)	Sept. 1995
M-05-08	Interim stabilize Tanks 241-C-105 and 241-C-106	Sept. 1996
M-05-09	Complete interim stabilization and interim isolation of all 149 single-shell tanks	Sept. 1996

Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 4 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-06-00	Develop single-shell tank waste retrieval technology and complete scale-model testing  Various waste retrieval technologies will be evaluated for retrieving each of the several types of single-shell tank wastes. Emphasis will be placed on optimizing waste removal while minimizing personnel exposure. Promising technologies will be evaluated for each waste type and one or more will be selected for testing using simulated waste in a scale model (minimum 1:12 scale) tank.	June 1994
M-06-01	Identify waste retrieval technologies to be tested in scale-model tank	Oct. 1990
M-06-02	Initiate waste retrieval testing in scale-model tank	Oct. 1992
M-07-00	Initiate full-scale demonstration of waste retrieval technology  A full-scale waste retrieval demonstration at a pre-selected single-shell tank will follow scale model testing of waste retrieval technologies (Milestone M-06-00). This demonstration will be complete when it succeeds in removing no less than 95 percent of the radioactive and chemical waste inventory from the single-shell tank. If any waste remains in the tank or the surrounding soil, final tank closure will proceed under an approved closure plan in Milestone M-08 or M-09. Demonstration initiation is defined as startup of the waste retrieval equipment in the selected single-shell tank.	Oct. 1997
M-07-01	Submit tank selection criteria, retrieval options and recommended tank selection to Ecology for concurrence	Oct. 1993
M-07-02	Ecology concurrence/non-concurrence of tank selection criteria, retrieval options, and tank selection	Dec. 1993

Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 5 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-07-03	Complete final design for installation of piping and other required waste removal equipment	Dec. 1994
M-07-04	Submit completion date and completion criteria for full-scale demonstration project to Ecology for concurrence	Oct. 1997
M-07-05	Ecology concurrence/non-concurrence of completion date/criteria	Dec. 1997
M-08-00	Initiate full-scale tank farm closure demonstration project  The full-scale tank farm demonstration project will include waste retrieval and the installation of a final cover. Decisions as to the appropriate disposal of wastes, tanks, contaminated piping, and soils will follow detailed characterization and regulatory agency approval as part of the closure process. For purposes of this milestone, initiation is defined as full-scale waste retrieval. The full-scale demonstration will serve to verify the various technologies being developed for tank farm closures.	June 2004
M-08-01	Submit tank farm selection criteria, closure method(s), tank farm selection rationale, and recommended tank farm selection to Ecology for approval	Jan. 1999
M-08-02	Complete final design for the installation of required piping and other required waste removal equipment	Jan. 2001
M-08-03	Submit tank farm closure plan for selected tank farm to Ecology for approval	Dec. 2003

Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 6 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-09-00	Complete closure of all 149 single-shell tanks  Closure and removal of required waste from the 149 single-shell tanks will be effected in accordance with the approved closure plan(s). As stated in the Hanford Defense Waste-Environmental Impact Statement Record of Decision, a supplemental EIS will be prepared prior to making any final decisions regarding disposal of single-shell tank waste. The final closure plan(s) will address the recommendations of the supplemental EIS.	June 2018
M-09-01	Complete preparation of supplemental EIS and issue draft for public review	June 2002
M-09-02	Submit closure plan to Ecology for approval	Dec. 2003
M-10-00	Complete analyses of at least two complete core samples from each single-shell tank  Obtain and analyze a minimum of two core samples from each single-shell tank. Samples will be collected and analyzed to determine the characteristics of significant waste strata to support timely development of tank waste retrieval technology and to assist in preparation of single-shell tank closure plans and the supplemental EIS. Additional sampling may be determined to be necessary to ensure representative samples are obtained from each tank. Samples will be collected and analyzed in accordance with a single-shell tank waste analysis plan approved by Ecology. Data from this initial characterization may be adequate to identify those tanks whose waste will be retrieved. Additional sampling and analysis will be necessary to justify any decision to leave tank waste in place.	Sept. 1998
M-10-01	Submit draft waste sampling and analysis plan to National Academy of Sciences, Ecology, and EPA	March 1989
M-10-02	Submit waste sampling and analysis plan to Ecology for approval	May 1989

Table D-1. Major and Interim Milestones--Disposal of Tank Waste.  
(sheet 7 of 7)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-10-03	Obtain 15 core samples from 2 tanks (reference sampling tanks)	Dec. 1989
M-10-04	Obtain 12 core samples from 6 tanks	Nov. 1990
M-10-05	Obtain 20 core samples from 10 tanks	Oct. 1991
M-10-06	Obtain 20 core samples from 10 tanks	Sept. 1992
M-10-07	Obtain 22 core samples from 11 tanks	Sept. 1993
M-10-08	Obtain 44 core samples from 22 tanks	Sept. 1994
M-10-09	Obtain 44 core samples from 22 tanks	Sept. 1995
M-10-10	Obtain 44 core samples from 22 tanks	Sept. 1996
M-10-11	Obtain 44 core samples from 22 tanks	Sept. 1997
M-10-12	Obtain 44 core samples from 22 tanks	Sept. 1998
M-11-00	Complete construction and initiate operations of expanded laboratory hot cells for high- level radioactive mixed waste  The expanded laboratory hot cells will provide analytical capabilities for waste analyses from single-shell tanks, double-shell tanks, and B Plant pretreatment processing. The hot cells will provide at least double the sample through- put capacity from that which is currently available at the 222-S Laboratory.	June 1994
M-11-01	Complete conceptual design for hot cell expansion	June 1989
M-11-02	Complete definitive design for hot cell expansion	March 1992

Table D-2. Major and Interim Milestones--Cleanup of Past-Practice Units.  
(sheet 1 of 4)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-12-00	Submit RI/FS or RFI/CMS work plans for 20 operable units  Work plans for each of the first 20 operable units listed in Appendix C will be prepared and submitted to EPA and Ecology by April 1992. The work plans will meet the requirements of RCRA or CERCLA, depending upon whether the operable unit has been assigned to RCRA Past Practices or to CERCLA (see Appendix C). DOE will implement each RI/FS or RFI/CMS upon lead regulatory agency approval and in accordance with the schedule in Appendix D.	April 1992
M-12-01	Submit 1100-EM-1 Operable Unit Work Plan (groundwater and source operable unit)	Jan. 1989
M-12-02	Submit 200-BP-1 Operable Unit Work Plan (groundwater and source operable unit)	Feb. 1989
M-12-03	Submit 300-FF-1 Operable Unit Work Plan (source operable unit)	March 1989
M-12-04	Submit 300-FF-5 Operable Unit Work Plan (groundwater operable unit)	Sept. 1989
M-12-05 <sup>1</sup>	Submit 100-HR-1 Operable Unit Work Plan (source operable unit).	June 1989
M-12-06 <sup>1</sup>	Submit 100-HR-3 Operable Unit Work Plan (groundwater operable unit).	June 1989
M-12-07 <sup>1</sup>	Submit 100-DR-1 Operable Unit Work Plan (source operable unit).	Oct. 1989
M-12-08	Submit 100-BC-1 Operable Unit Work Plan (source operable unit)	June 1990

<sup>1</sup>Work plan will be prepared in accordance with CERCLA guidance but will reflect RCRA terminology.



Table D-2. Major and Interim Milestones--Cleanup of Past-Practice Units.  
(sheet 2 of 4)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-12-09	Submit 100-BC-5 Operable Unit Work Plan (groundwater operable unit)	June 1990
M-12-10	Submit 100-KR-1 Operable Unit Work Plan (source operable unit)	Aug. 1990
M-12-11	Submit 100-KR-4 Operable Unit Work Plan (groundwater operable unit)	Aug. 1990
M-12-12	Submit 100-NR-1 Operable Unit Work Plan (source and groundwater operable unit)	Dec. 1990
M-12-13	Submit 100-FR-1 Operable Unit Work Plan (source and groundwater operable unit)	April 1991
M-12-14	Submit 100-NR-3 Operable Unit Work Plan (source and groundwater operable unit)	Dec. 1990
M-12-15	Submit 200-UP-2 Operable Unit Work Plan (source and groundwater operable unit)	June 1991
M-12-16	Submit 100-BC-2 Operable Unit Work Plan (source and groundwater operable unit)	Aug. 1991
M-12-17	Submit 200-BP-5 Operable Unit Work Plan (source and groundwater operable unit)	Oct. 1991
M-12-18	Submit 100-DR-2 Operable Unit Work Plan (source operable unit)	Dec. 1991
M-12-19	Submit 200-ZP-1 Operable Unit Work Plan (source and groundwater operable unit)	Feb. 1992
M-12-20	Submit 100-KR-2 Operable Unit Work Plan (source and groundwater operable unit)	April 1992

**Table D-2. Major and Interim Milestones--Cleanup of Past-Practice Units.  
(sheet 3 of 4)**

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-13-00	<p><b>Submit six RI/FS or RFI/CMS work plans per year</b></p> <p>Submit a minimum of six RI/FS or RFI/CMS work plans per calendar year until work plans have been submitted for all operable units. The work plans will meet the requirements of RCRA or CERCLA depending on whether the operable unit has been assigned to RCRA Past Practices or to CERCLA (see Appendix C). DOE will implement each RI/FS or RFI/CMS upon lead regulatory agency approval and in accordance with the schedule in Appendix D.</p> <p>Interim milestones will be developed during each annual update of the work schedules in Appendix D. Milestones M-12-19 and M-12-20 will apply towards the six work plans scheduled for CY 1992.</p>	<p><b>Annually Beginning CY 1992</b></p>
M-14-00	<p><b>Complete construction and initiate operations of a low-level mixed waste laboratory</b></p> <p>The low-level mixed waste laboratory will provide analytical capabilities to analyze hazardous waste samples, those containing low levels of radioactivity as well as those that are strictly hazardous. The new laboratory will be sized in accordance with the design specifications of the project Conceptual Design Report.</p>	<p><b>Jan. 1992</b></p>
M-14-01	<p><b>Complete definitive design for a low-level mixed waste laboratory</b></p>	<p><b>Sept. 1990</b></p>

Table D-2. Major and Interim Milestones--Cleanup of Past-Practice Units.  
(sheet 4 of 4)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-15-00	Complete the RI/FS (or RFI/CMS) process for all operable units  All operable units (including groundwater operable units) will have been investigated through the RI/FS (or RFI/CMS) process, and the public comment period will be completed. Specific remedial actions for each operable unit will be selected.	Sept. 2005
M-15-01A	Submit draft 1100-EM-1 Feasibility Study Phase I and II report to EPA and Ecology for review	Dec. 1990
M-15-01B	Submit draft 1100-EM-1 Remedial Investigation Phase II report to EPA and Ecology for review	Nov. 1991
M-15-01C	Submit draft 1100-EM-1 Feasibility Study Phase III report and proposed plan to EPA and Ecology for review	Apr. 1992
M-16-00	Complete the remedial actions for all operable units  Remedial actions will be completed for each operable unit in accordance with the schedules developed as part of the remedial design (RD)/remedial action (RA) or corrective measure implementation (CMI) work plan.	Sept. 2018

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 1 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-17-00	<p>Complete liquid effluent treatment facilities/ upgrades for all Phase I streams</p> <p>Hanford currently has 19 Phase I liquid effluent streams being discharged to cribs, ponds, or ditches. Phase I streams are defined in the "Annual Status Report of the Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site," September 1988. Some of the cribs, ponds, or ditches are RCRA waste disposal units. These, along with others, are located in areas requiring inactive site investigations/ remedial actions. Liquid effluent streams are classified as Phase I streams based upon radionuclide/chemical content, regulatory requirements relative to the waste disposal unit, chemical spill potential, and waste disposal unit life expectancy.</p> <p>Each of the 19 Phase I effluent streams will be either treated or eliminated. Specific completion dates for each waste stream are identified in the Appendix D work schedules. Completion dates for eight specific waste stream treatment or management systems are interim (enforceable) milestones. The remaining completion dates are target dates (not enforceable) which are included as such in order to allow management flexibility. Target date projects under M-17-00 shall be completed no later than June 1995.</p>	June 1995
M-17-01	Complete B Pond by-pass system installation	Oct. 1990
M-17-02	Complete PUREX ammonia scrubber distillate treatment system	Jan. 1995
M-17-03	Complete PUREX demineralizer regeneration neutralization system upgrades	Sept. 1989

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 2 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-17-04	Complete B Plant chemical sewer upgrades	July 1992
M-17-05	Select 300 Area Process Trench effluent treatment option and establish schedule for implementing treatment and ceasing liquid discharges	March 1990
M-17-06	Cease all discharges to 300 Area process trenches	Dec. 1991
M-17-07	Complete secondary waste treatment system	June 1995
M-17-08	Complete 200 Area treated effluent system	June 1995
M-17-09	Complete 300 Area treated effluent system	June 1995
M-17-10	Cease all liquid discharges to hazardous land disposal units unless such units have been clean closed in accordance with RCRA	June 1995
M-18-00	Complete Waste Receiving and Processing (WRAP) Module I construction and initiate operations	Sept. 1996
	The WRAP Module I is required to sort and repackage wastes that are planned to be retrieved from retrievable storage units. Much of the waste currently stored in the retrievable storage units is anticipated to be radioactive mixed waste. Some of the radioactive waste stored on the pads is known to contain extremely hazardous waste as well as federally land-banned waste.	
M-18-01	Complete construction of WRAP Module I	Sept. 1995

**Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 3 of 11)**

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-19-00	Complete WRAP Module II construction and initiate operations  The WRAP Module II will include waste treatment capabilities to minimize land disposal of low-level radioactive waste and radioactive mixed waste. The September 1999 completion date of WRAP Module II is critical to achieving compliance for the management of wastes that are prohibited from land disposal and extended storage.	Sept. 1999
M-19-01	Complete construction of WRAP Module II	Sept. 1998
M-20-00	Submit Part B permit applications or closure plans for all RCRA TSD units  All Part B permit applications, closure plans, and post-closure permit applications will be submitted to Ecology and the EPA by May 1996. Individual unit submittals will occur as shown in the Appendix D work schedules. Scheduled submittal dates shall be enforceable as interim milestones.	May 1996
M-20-01	Submit HWVP (TS-2-5) Part B to Ecology and EPA	July 1989
M-20-02	Submit 616 Storage Facility (S-6-1) Part B to Ecology and EPA	July 1989
M-20-03	Submit Single-Shell Tank System (S-2-4) Closure/Corrective Action Work Plan to Ecology and EPA	Sept. 1989
M-20-04	Submit 2101-M Pond (D-2-1) Closure Plan to Ecology and EPA	Sept. 1989
M-20-05	Submit Central Waste Complex - RMW Storage (B-2-4) Part B to Ecology and EPA	Oct. 1991
M-20-06	Submit Low-Level Burial Grounds (D-2-9) Part B to Ecology and EPA	Dec. 1989
M-20-07	Submit Nonradioactive Dangerous Waste Landfill (D-6-1) Closure/Post-Closure Plan to Ecology and EPA	Aug. 1990

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 4 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-20-08	Submit 305-B Storage Facility (S-3-2) Part B to Ecology and EPA	Jan. 1990
M-20-09	Submit 216-B-3 Pond (D-2-5) Closure/Post-Closure Plan to Ecology and EPA	March 1990
M-20-10	Submit 300 Area Waste Acid System (TS-3-1) Closure Plan to Ecology and EPA (includes 311 Tanks)	June 1990
M-20-11	Submit PUREX Tunnels (S-2-1) Part B to Ecology and EPA	Sept. 1990
M-20-12	Submit Central Waste Complex - (TS-2-4) WRAP Part B to Ecology and EPA	Oct. 1991
M-20-13	Submit 303-K Storage Area (S-3-1) Closure Plan to Ecology and EPA	April 1990
M-20-14	Submit 4843 Sodium Storage Facility (S-4-1) Part B to Ecology and EPA	March 1991
M-20-15	Submit 304 Concretion Facility (TS-3-2) Closure Plan to Ecology and EPA	April 1990
M-20-16	Submit Double-Shell Tanks (S-2-3) Part B to Ecology and EPA	June 1991
M-20-17	Submit 242-A Evaporator (T-2-6) Part B to Ecology and EPA	June 1991
M-20-18	Submit 3718-F Alkali Metal Treatment and Storage Facility (TS-3-3) Part B to Ecology and EPA	June 1991
M-20-19	Submit Simulated High-Level Slurry Treatment/Storage (TS-3-4) Closure Plan to Ecology and EPA	Sept. 1989
M-20-20	Submit 325 Waste Treatment Facility (T-3-4) Part B to Ecology and EPA	August 1991
M-20-21	Submit B Plant (TS-2-3) Part B to Ecology and EPA	Oct. 1991

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 5 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-20-22	Submit 222-S Laboratory (TS-2-1) Part B to Ecology and EPA	Dec. 1991
M-20-23	Submit TRUSAF Storage (S-2-2) Part B to Ecology and EPA	June 1992
M-20-24	Submit PUREX (TS-2-6) Part B to Ecology and EPA	Sept. 1992
M-20-25	Submit Hanford Patrol Academy Demolition Sites (T-11-1) Part B to Ecology and EPA	Nov. 1992
M-20-26	Submit Ashpit Demolition Site (T-2-2) Closure Plan to Ecology and EPA	Nov. 1992
M-20-27	Submit Hexone Storage and Treatment (TS-2-2) Closure Plan to Ecology and EPA	Nov. 1992
M-20-28	Submit E-8 Borrow Pit Demolition Site (T-2-1) Closure Plan to Ecology and EPA	Nov. 1992
M-20-29	Submit MASF (T-4-1) Part B to Ecology and EPA	Nov. 1993
M-20-30	Submit 303-M Oxide Facility (T-3-2) Part B to Ecology and EPA	Oct. 1992
M-20-31	Submit 1301-N/1325-N (D-1-2) Closure Plan/Post-Closure Plan to Ecology and EPA	May 1994
M-20-32	Submit 300 Area Process Trenches (D-3-1) Closure/Post-Closure Plan to Ecology and EPA	Sept. 1992
M-20-33	Submit 216-A-10 Crib (D-2-2) Closure/Post-Closure Plan to Ecology and EPA	March 1996
M-20-34	Submit 216-A-36B Crib (D-2-4) Closure/Post-Closure Plan to Ecology and EPA	March 1996
M-20-35	Submit 1324-N/1324-NA (T-1-2) Closure Plan to Ecology and EPA	Sept. 1994
M-20-36	Submit 216-A-29 Ditch (D-2-3) Closure/Post-Closure Plan to Ecology and EPA	May 1996



Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 6 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-20-37	Submit 216-U-12 Crib (D-2-8) Closure Plan/ Post-Closure Plan to Ecology and EPA	Nov. 1994
M-20-38	Submit 216-B-63 Trench (D-2-6) Closure Plan to Ecology and EPA	May 1996
M-20-39	Submit 216-S-10 Pond and Ditch (D-2-7) Closure Plan to Ecology and EPA	May 1996
M-20-40	Submit 100-D Ponds (D-1-1) Closure Plan to Ecology and EPA	Feb. 1993
M-20-41	Submit 105-DR (T-1-1) Closure Plan to Ecology and EPA	Sept. 1990
M-20-42	Submit Thermal Treatment (T-X-3) Part B to Ecology and EPA	Dec. 1993
M-20-43	Submit Physical/Chemical Treatment (T-X-2) Part B to Ecology and EPA	Dec. 1994
M-20-44	Submit Biological Treatment (T-X-1) Part B to Ecology and EPA	Dec. 1995
M-20-45	Submit petitions to Ecology to withdraw Part A permit applications for 332 Storage Facility, 1706-KE Treatment Facility, 2727-WA Sodium Storage Facility, 221-T Alkali Metal Treatment and Storage Facility, and 324 Sodium Treatment Pilot Plant	June 1989
M-20-46	Submit petitions to Ecology to manage the following facilities as "treatment by generator" facilities: T Plant Treatment Tank, 222-S Treatment Tank, PUREX Treatment Tanks, 204-AR Waste Unloading Facility, and 241-Z Treatment Tank	June 1989
M-21-00	Submit RCRA interim status compliance assessments for all TSD units  RCRA operational units and those undergoing closure will be assessed for compliance with RCRA and state Dangerous Waste interim status requirements. Part A applications which will be withdrawn or units not yet constructed are not included in these assessments. Copies of the assessment documentation will be provided	April 1989

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 7 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
	to Ecology within 30 days of assessment completion. The last assessment will be completed by March 31, 1989. Facilities to be assessed by March 31, 1989, include tank farms, low-level burial grounds, Plutonium Finishing Plant, PUREX, B Plant, N Reactor, 100 K Area Fuel Storage, Fast Flux Test Facility, T Plant, 222-S, 616 Storage Facility, Central Waste Complex, Nonradioactive Dangerous Waste Landfill, 300 Area Fuel Fabrication Facilities, Patrol demolition site, 4843 Sodium Storage Facility, 3718-F Alkali Metal Treatment and Storage, single-shell tanks, hexone tanks, 183-H, 2727-S, 300 Area Solvent Evaporator, 105-DR Sodium Fire Facility, E-8 Borrow Pit, 200 West Ash Pit, 216-U-12 Crib, 2101-M Pond, 216-S-10 Ditch and Pond, and 100-D Ponds.	
M-22-00	Establish enforceable compliance action schedules	Dec. 1989
	Schedules will be developed for review and approval by Ecology and the EPA for any actions identified in the interim status compliance assessments that are necessary to ensure compliance with interim status requirements. Specific compliance actions will become enforceable interim milestones under M-23-00.	
M-22-01	Submit petitions or requests for variance from interim status standards to Ecology and EPA	Sept. 1989

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 8 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-23-00	<p>Complete Interim Status Corrective Actions</p> <p>Complete actions identified in interim status compliance assessments (M-21-00) excluding groundwater monitoring and closure plans.</p> <p>Petitions for modification of inspection and labeling requirements were submitted to Ecology in September 1989 (M-21-01). Pending resolution, inspections and labeling will be performed per existing operations procedures.</p>	Sept.1991
M-23-01	Resubmit Treatment by Generator Requests for: T-Plant, 222-S, PUREX and 204-AR.	June 1990
M-23-02	Resubmit Request for Part A Permit Application withdrawal for the following facilities: 221-T Containment System Test Facility and the 324 Sodium Removal Pilot Plant.	Jan. 1990
M-23-03	Complete Waste Analysis Plans for Double Shell Tanks, 242-A Evaporator, and B Plant active TSD units. Waste Analysis Plans will be upgraded when additional laboratory capabilities are available pursuant to Milestones M-11-00 and M-14-00.	Dec. 1990
M-23-04	Complete Waste Analysis Plans for 4843 Storage Facility and Single Shell Tanks.	June 1990
M-23-05	Complete Contingency Plans for Low-Level Burial Grounds, 4843 Storage Facility, Central Waste Complex, T-Plant, TRUSAF, and 616.	June 1990
M-23-06	Complete Contingency Plans for Single-Shell Tanks, Double-Shell Tanks and 242-A Evaporator.	Oct. 1990
M-23-07	Complete Interim Status Corrective Actions for 222-S Storage Pad.	March 1990
M-23-08	Complete Interim Status Corrective Actions for 4843 Storage Facility.	June 1990

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 9 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-23-09	Notify Ecology of Decision on Operating Status of 3718-F Alkali Metal Treatment Facility.	Sept. 1990
M-23-10	If Operational, Complete Interim Status Corrective Actions for 3718-F.	Sept. 1991
M-23-11	Complete Interim Status Corrective Actions for Single Shell Tanks.	Dec. 1990
M-23-12	Complete Interim Status Corrective Actions for Double Shell Tanks.	Dec. 1990
M-23-13	Complete Interim Status Corrective Actions for 242-A Evaporator.	Dec. 1990
M-23-14	Complete Interim Status Corrective Actions for Low-Level Burial Grounds.	Jan. 1991
M-23-15	Complete Interim Status Corrective Actions for TRUSAF (224-T).	June 1990
M-23-16	Complete Interim Status Corrective Actions for 616 facility.	June 1990
M-23-17	Complete Interim Status Corrective Actions for Central Waste Complex.	June 1990
M-23-18	Complete Interim Status Corrective Actions for B-Plant.	Sept. 1991
M-23-19	Complete All B-Plant Cell 4 Corrective Actions.	Dec. 1990
M-23-20	Complete Interim Status Corrective Actions for T-Plant.	Jan. 1991
M-24-00	Install RCRA groundwater monitoring wells at the rate of 29 in CY 1989, 30 in CY 1990, and 50 per year thereafter until all land disposal units and single-shell tanks are determined to have RCRA compliant monitoring systems	Annually Beginning CY 1989
	USDOE will install groundwater monitoring wells around RCRA land disposal units and the single-shell tanks at the rate described above until Ecology determines that all such groundwater monitoring systems meet the requirements of WAC 173-303-645.	

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 10 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
	Installation of groundwater wells shall mean that wells have been drilled, adequately sealed, and screened over no more than 15 feet of the aquifer unless otherwise approved by Ecology, that all pumps and associated sampling equipment have been installed, and that such wells have been developed sufficiently to provide satisfactory samples for all parameters to be analyzed.	
	Specific units to receive groundwater wells and the number of wells to be installed at each unit will be identified in Appendix D in two-year intervals (i.e., CY 1989 and CY 1990 now, CY 1990 and CY 1991 at the next annual update, etc.). Such schedules will be enforceable as interim milestones.	
M-24-01	Install 10 additional wells around the Low-Level Burial Grounds for a total of 45 RCRA groundwater wells	Dec. 1989
M-24-02	Install 5 additional wells around B Pond for a total of 9 RCRA monitoring wells	Dec. 1989
M-24-03	Install 12 wells around the SSTs for a total of 12 RCRA monitoring wells	Dec. 1989
M-24-04	Install 2 additional wells around the grout vault area for a total of 7 RCRA monitoring wells	Dec. 1989
M-24-05	Install 1 additional well around the Grout Vault Area for a total of 8 RCRA monitoring wells	Dec. 1990
M-24-06	Install 6 additional wells around the Low-Level Burial Grounds for a total of 51 RCRA monitoring wells	Dec. 1990
M-24-07	Install 11 additional wells around the SSTs for a total of 23 RCRA monitoring wells	Dec. 1990
M-24-08	Install 4 wells around the B-63 Trench for a total of 4 RCRA monitoring wells	Dec. 1990

Table D-3. Major and Interim Milestones--Permitting and Closures of TSD Units. (sheet 11 of 11)

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-24-09	Install 3 wells around the S-10 Ditch and Pond for a total of 3 RCRA monitoring wells	Dec. 1990
M-24-10	Install 4 wells around the U-12 Crib for a total of 4 RCRA monitoring wells	Dec. 1990
M-24-11	Install 1 additional well around B Pond for a total of 11 RCRA monitoring wells	Dec. 1990
M-24-12	Install 18 additional RCRA wells around low-level burial grounds (69 total)	Dec. 1991
M-24-13	Install 3 RCRA wells around 216-S10-Pond	Dec. 1991
M-24-14	Install 4 additional RCRA wells around the 100-D Ponds	Dec. 1991
M-24-15	Install 10 additional RCRA wells around the SSTs (33 total)	Dec. 1991
M-24-16	Install 7 additional RCRA wells around the B-Pond (17 total)	Dec. 1991
M-24-17	Install 4 additional RCRA wells around the 1324-N/NA Ponds	Dec. 1991
M-24-18	Install 4 additional RCRA wells around the 216-A-29 ditch	Dec. 1991
M-25-00	Provide annual reports of studies/efforts that are in progress to identify alternatives to land disposal of radioactive mixed wastes	Annually Beginning March 1990
	The annual reports will provide information regarding actions taken to minimize waste generation, recycle/reclaim wastes, or treat wastes.	
	No interim milestones to be identified; each annual report is tracked as a major milestone.	

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FIGURE D-1 WORK SCHEDULE

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
ACTION PLAN WORK SCHEDULE

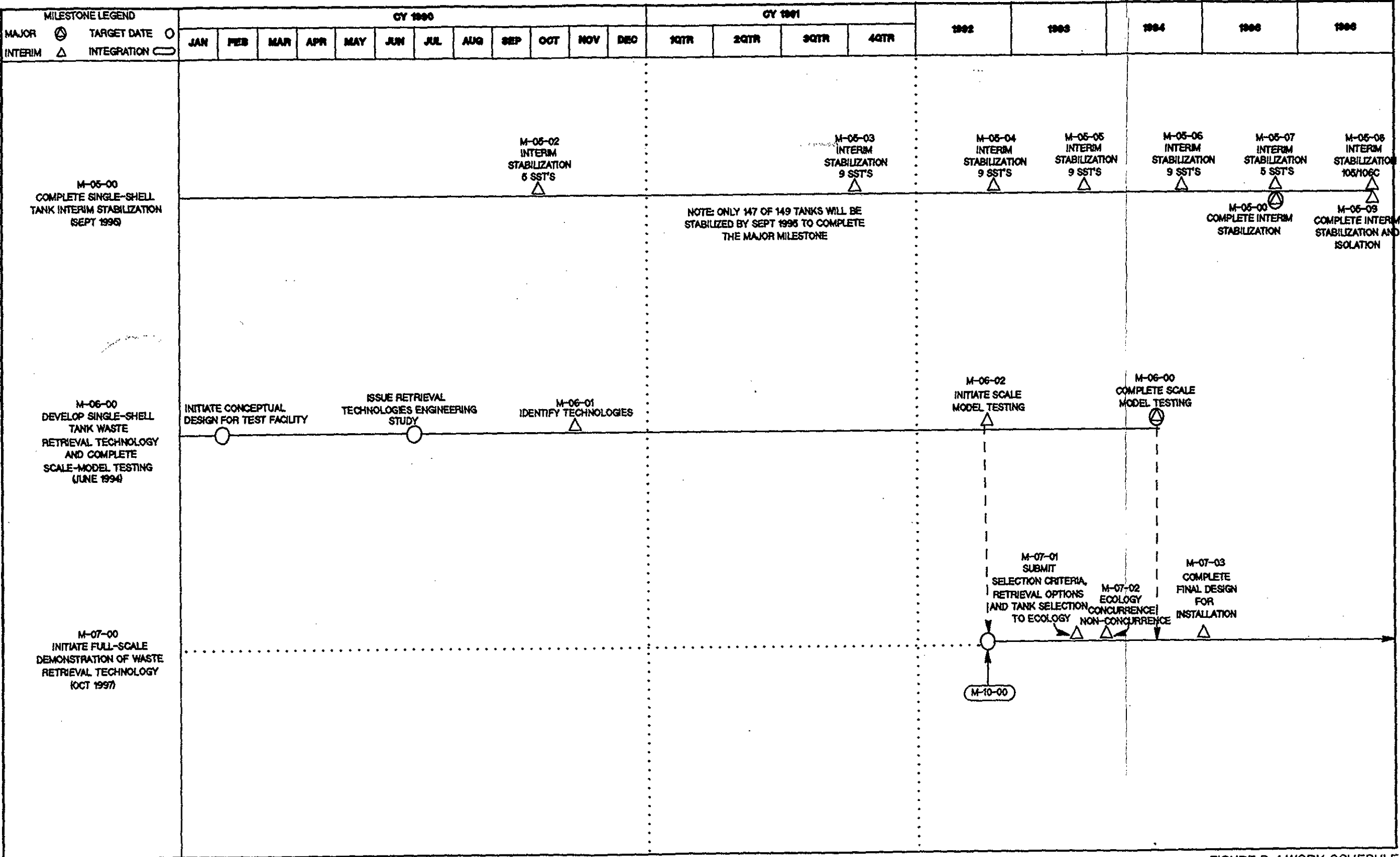


FIGURE D-1 WORK SCHEDULE



FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
ACTION PLAN WORK SCHEDULE

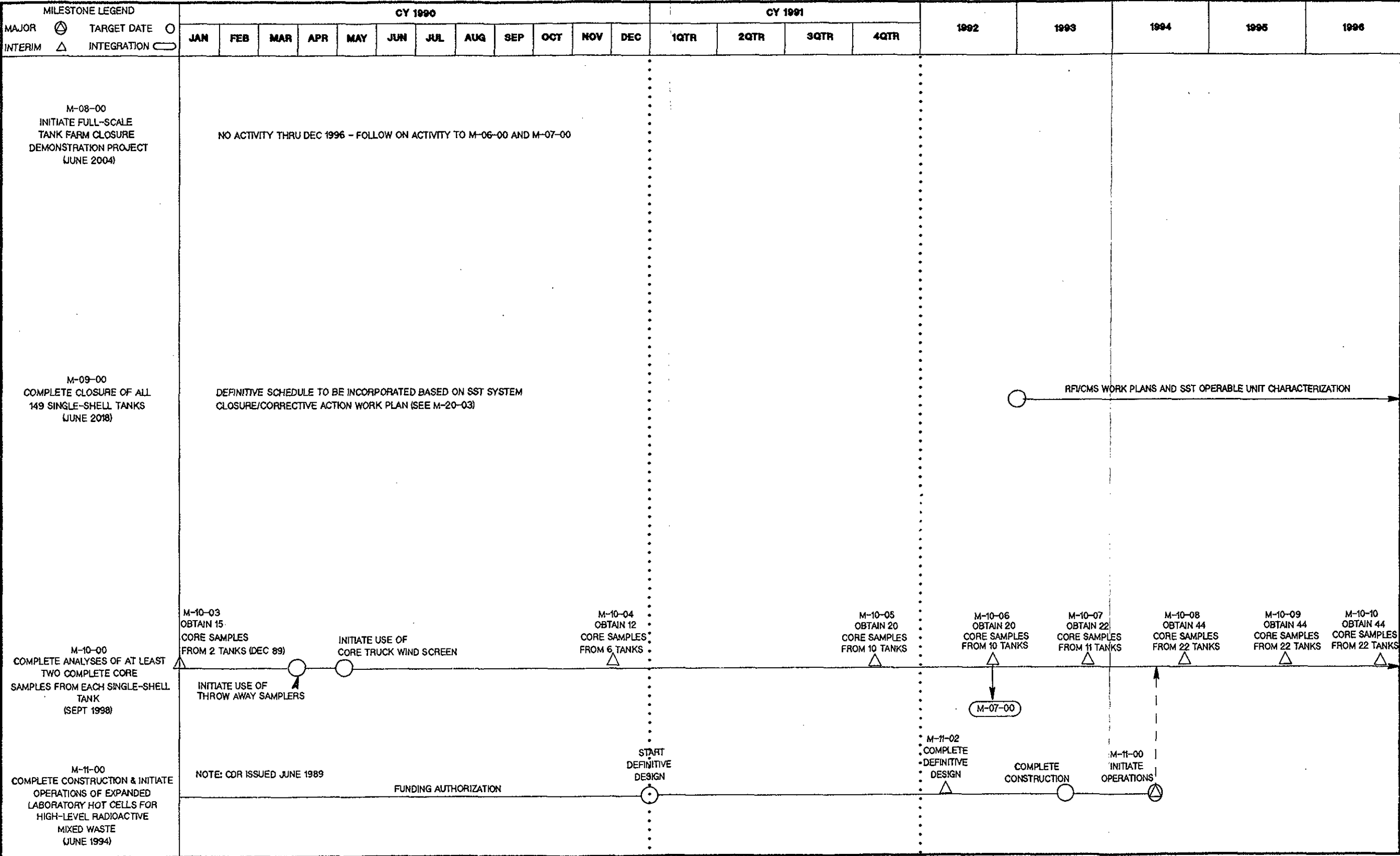
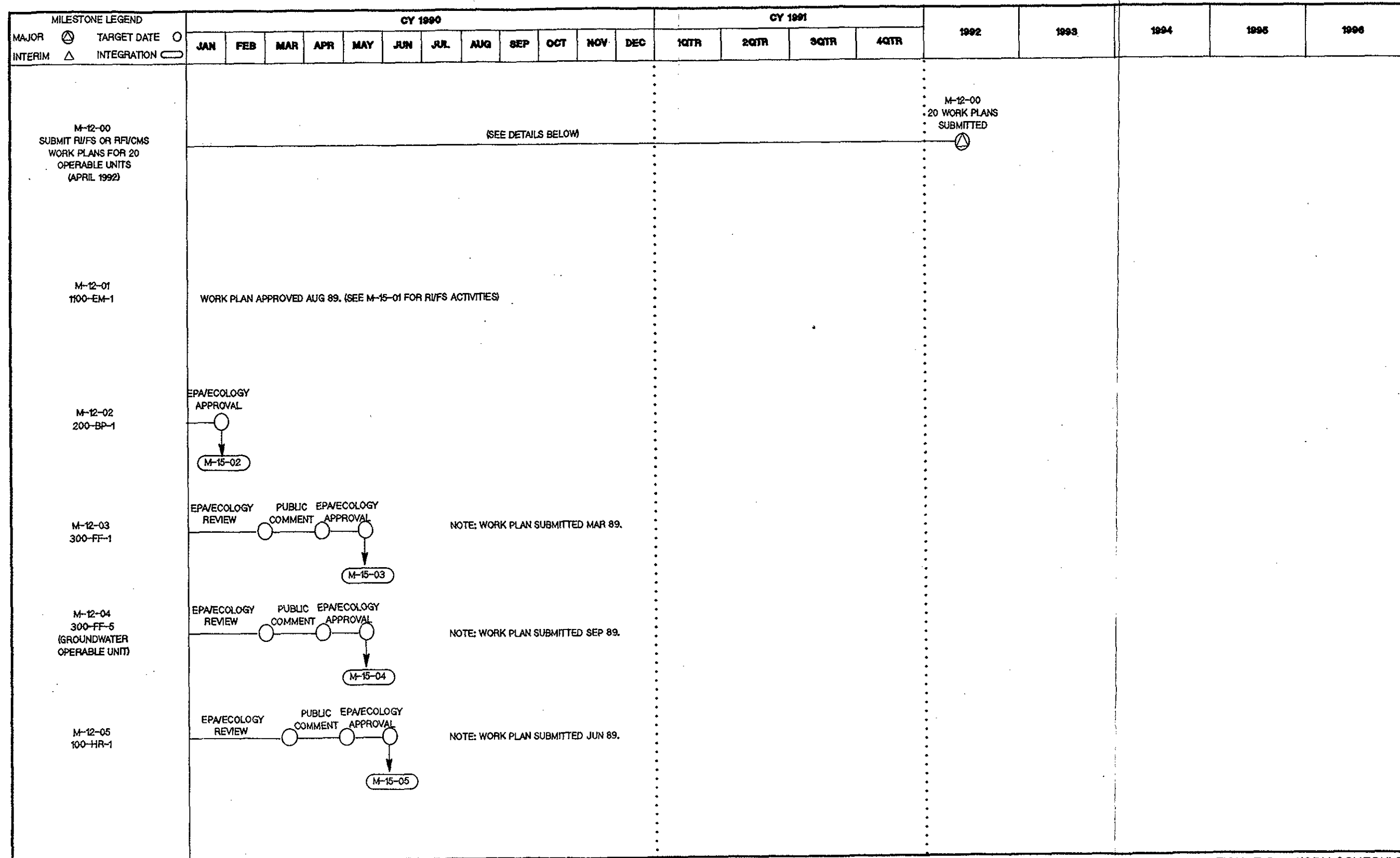


FIGURE D-1 WORK SCHEDULE

# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

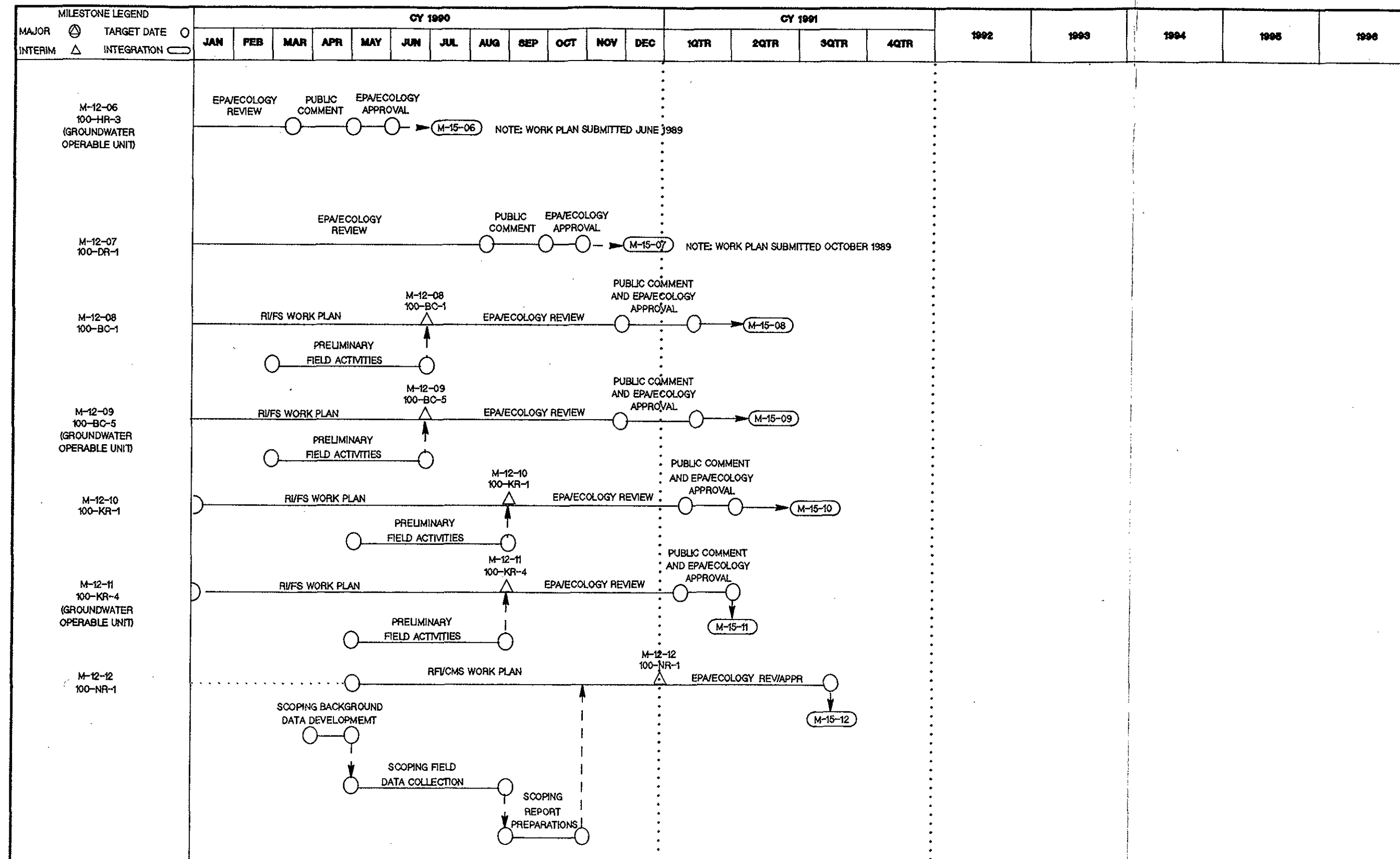
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# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

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FIGURE D-1 WORK SCHEDULE

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# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

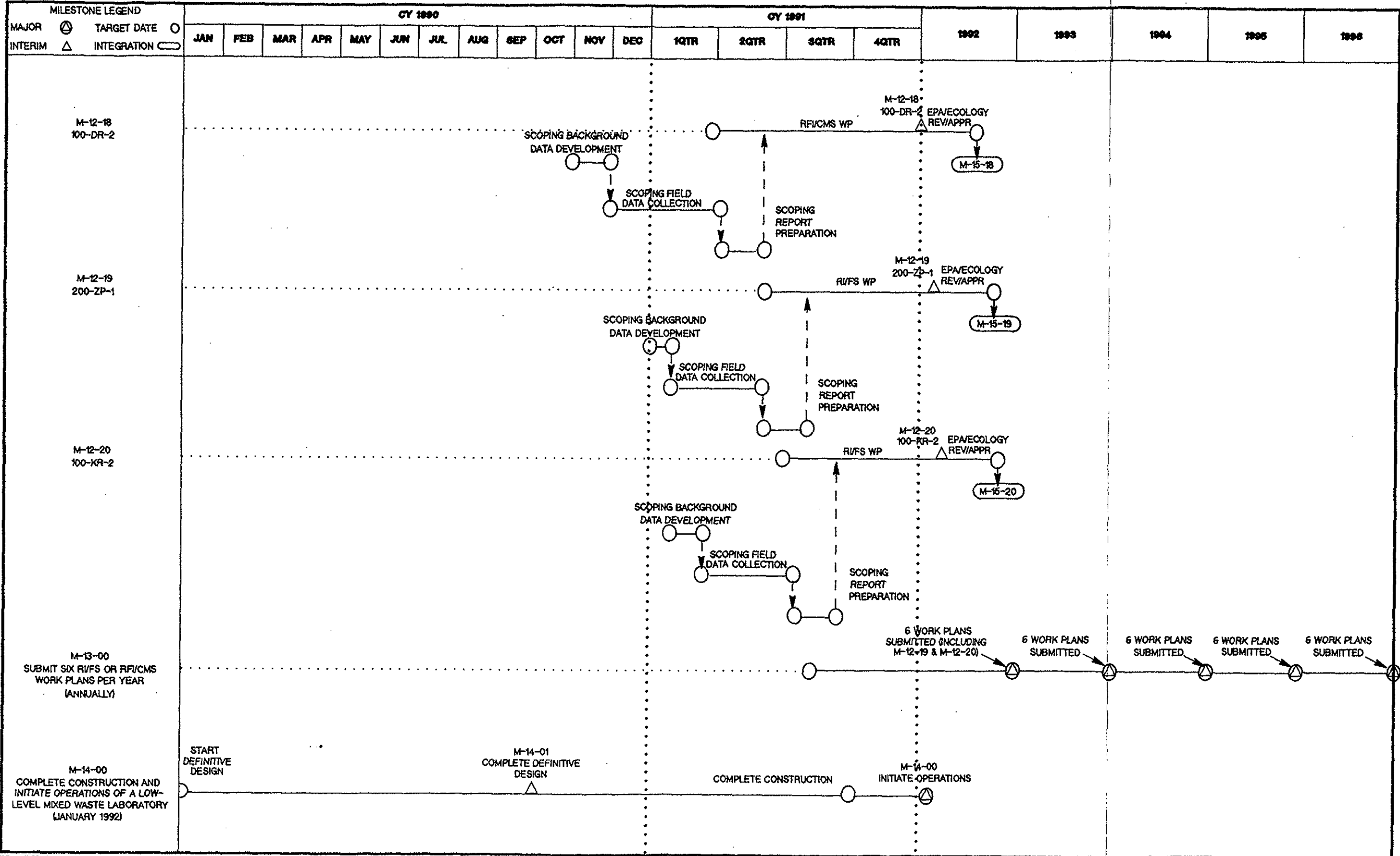


FIGURE D-1 WORK SCHEDULE

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
ACTION PLAN WORK SCHEDULE

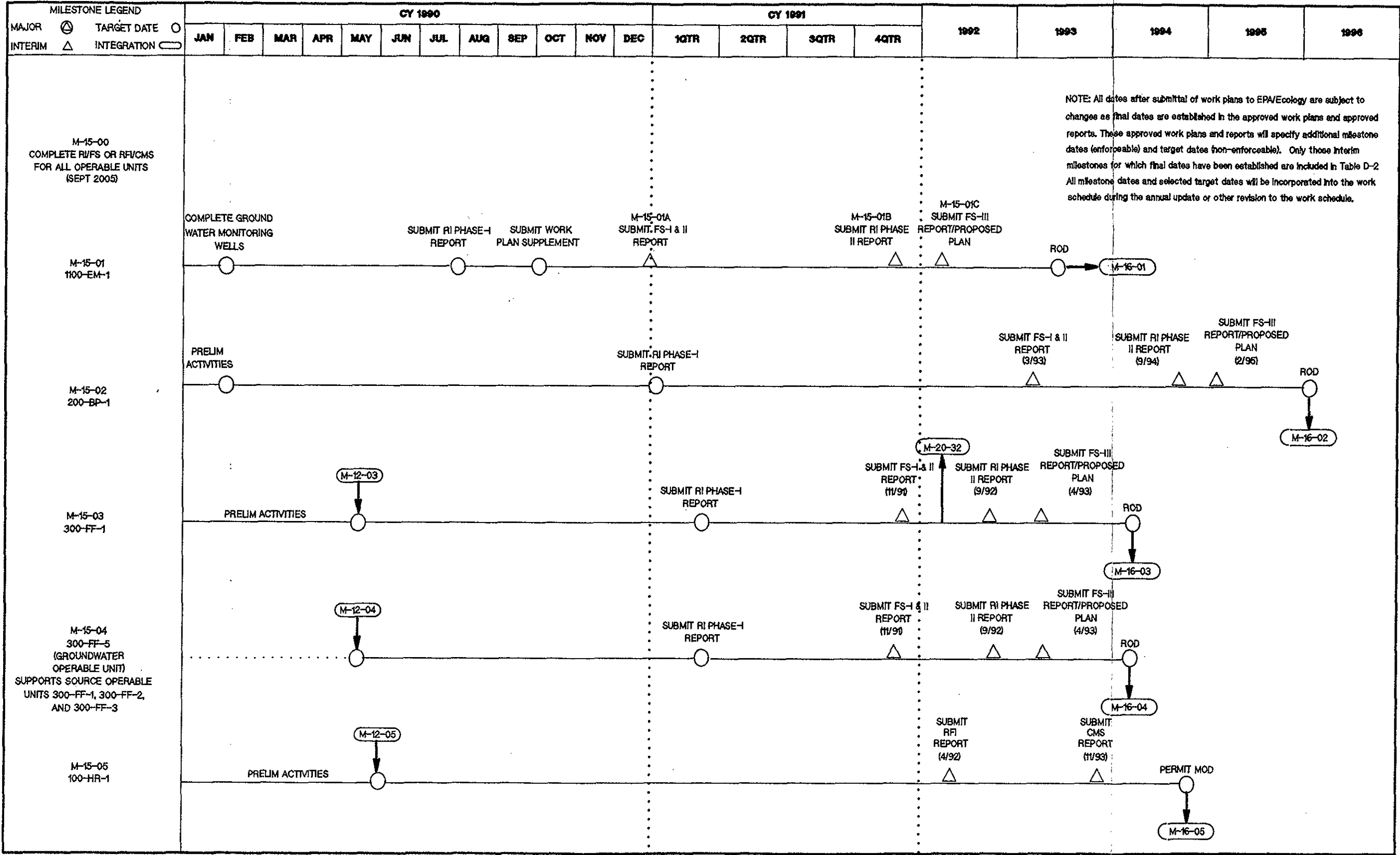
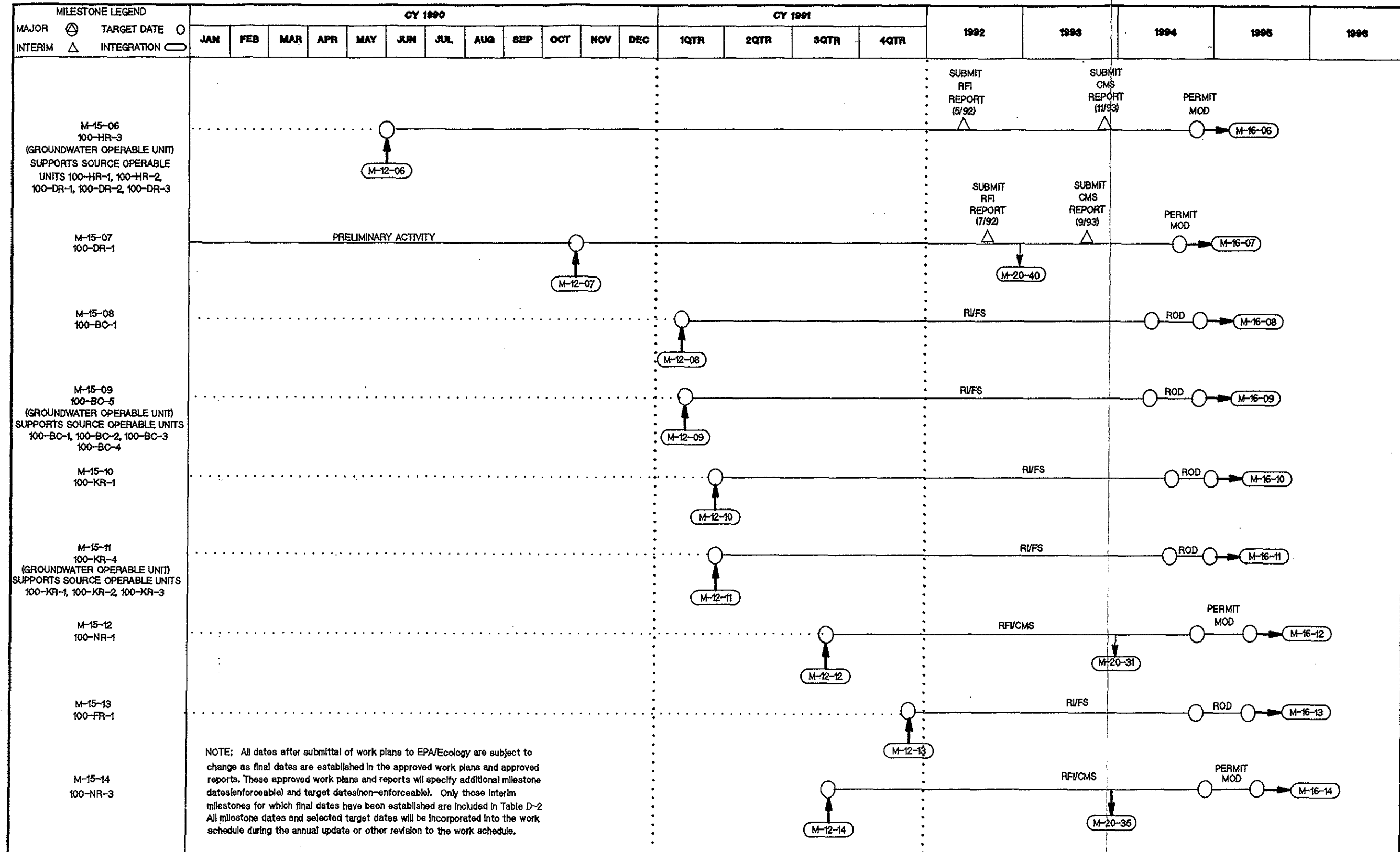


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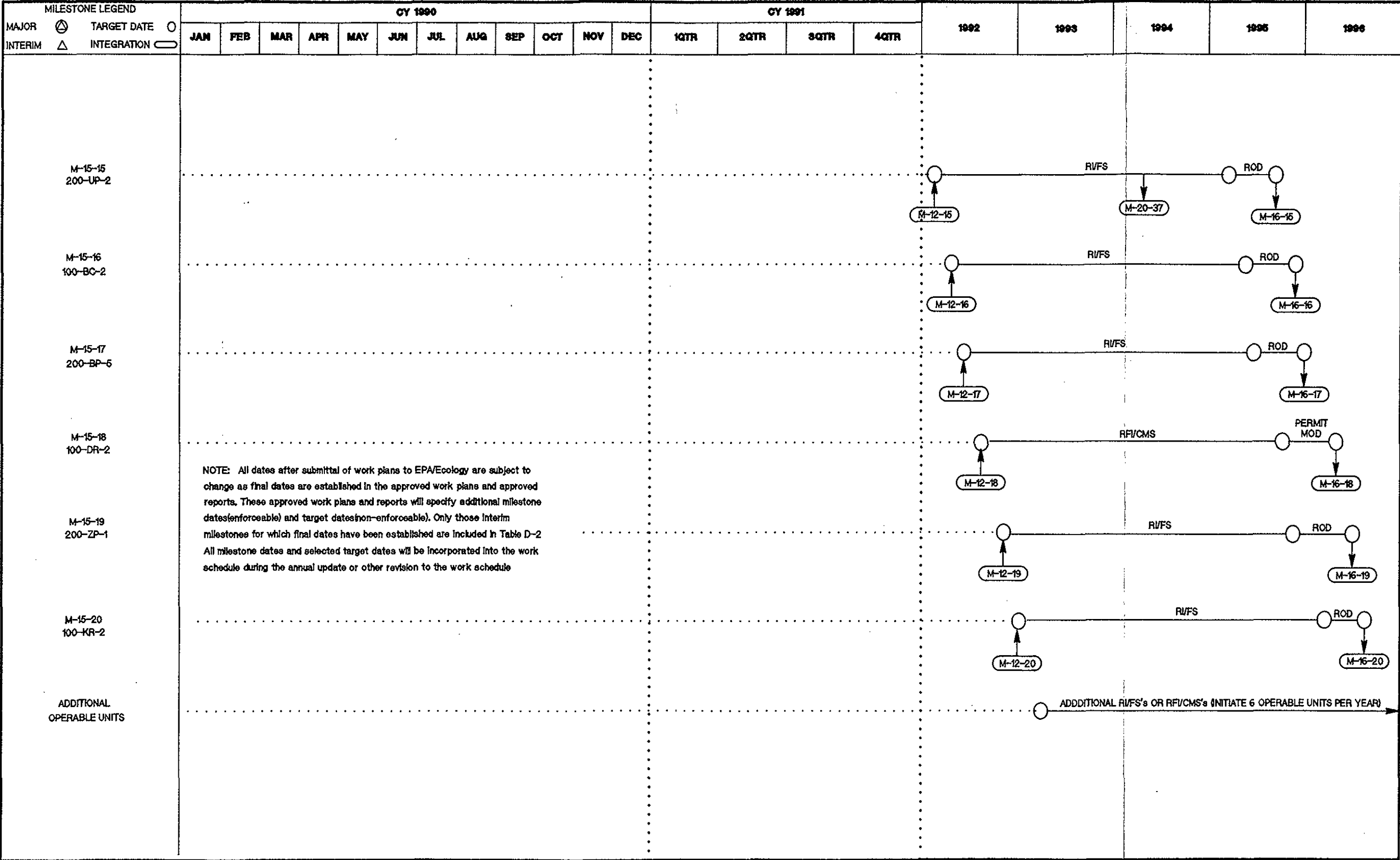
# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

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FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
ACTION PLAN WORK SCHEDULE

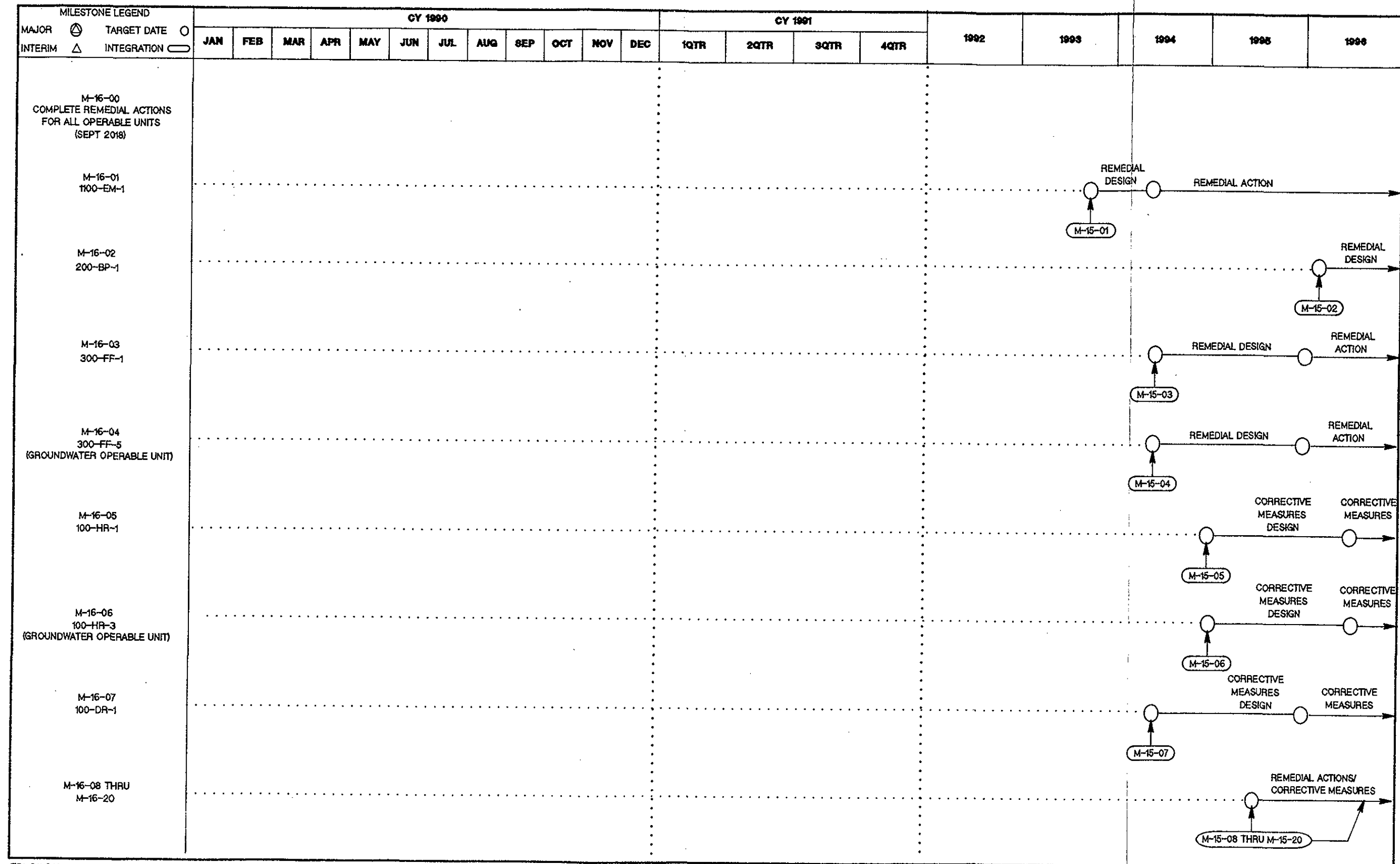




# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

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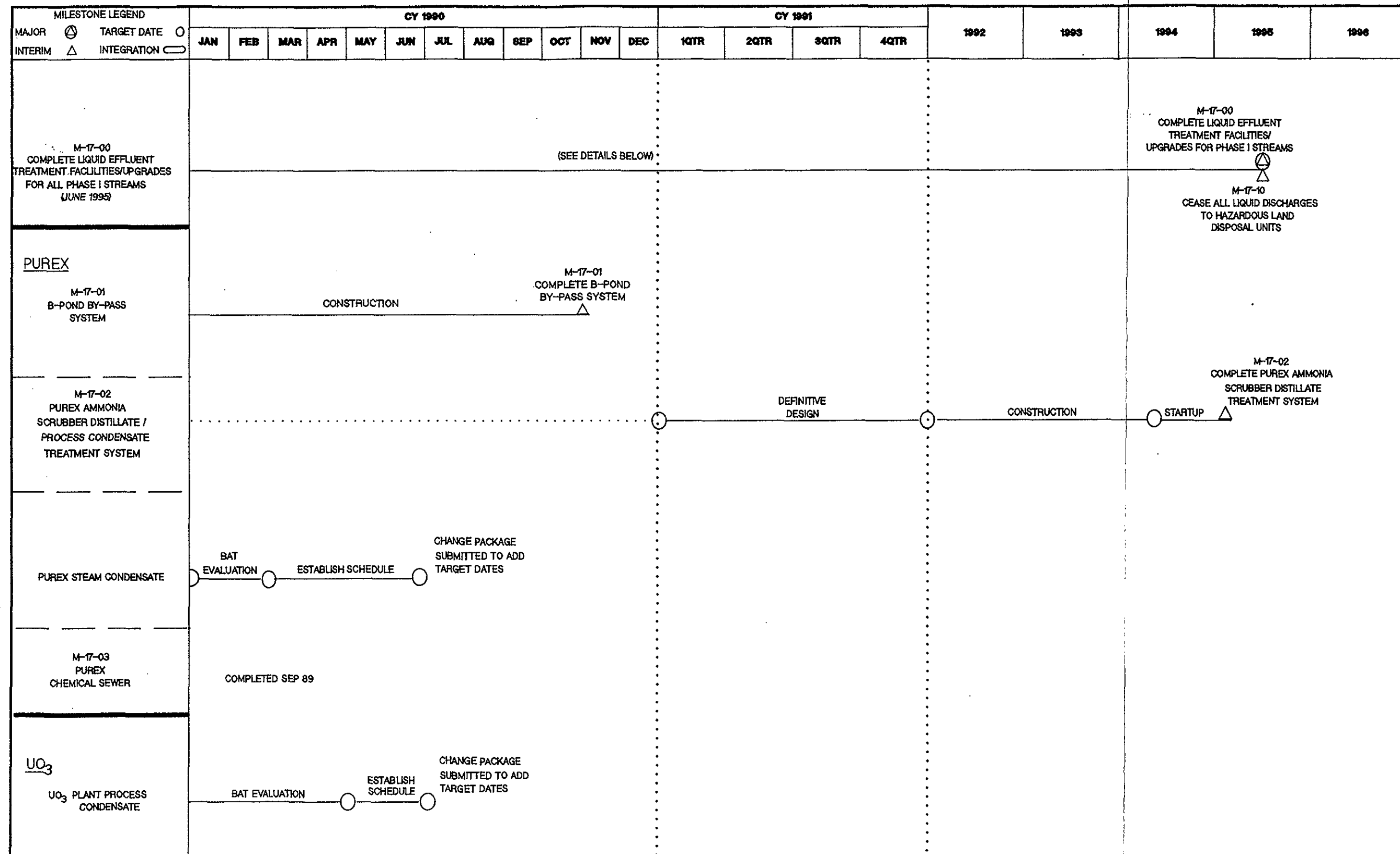
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# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

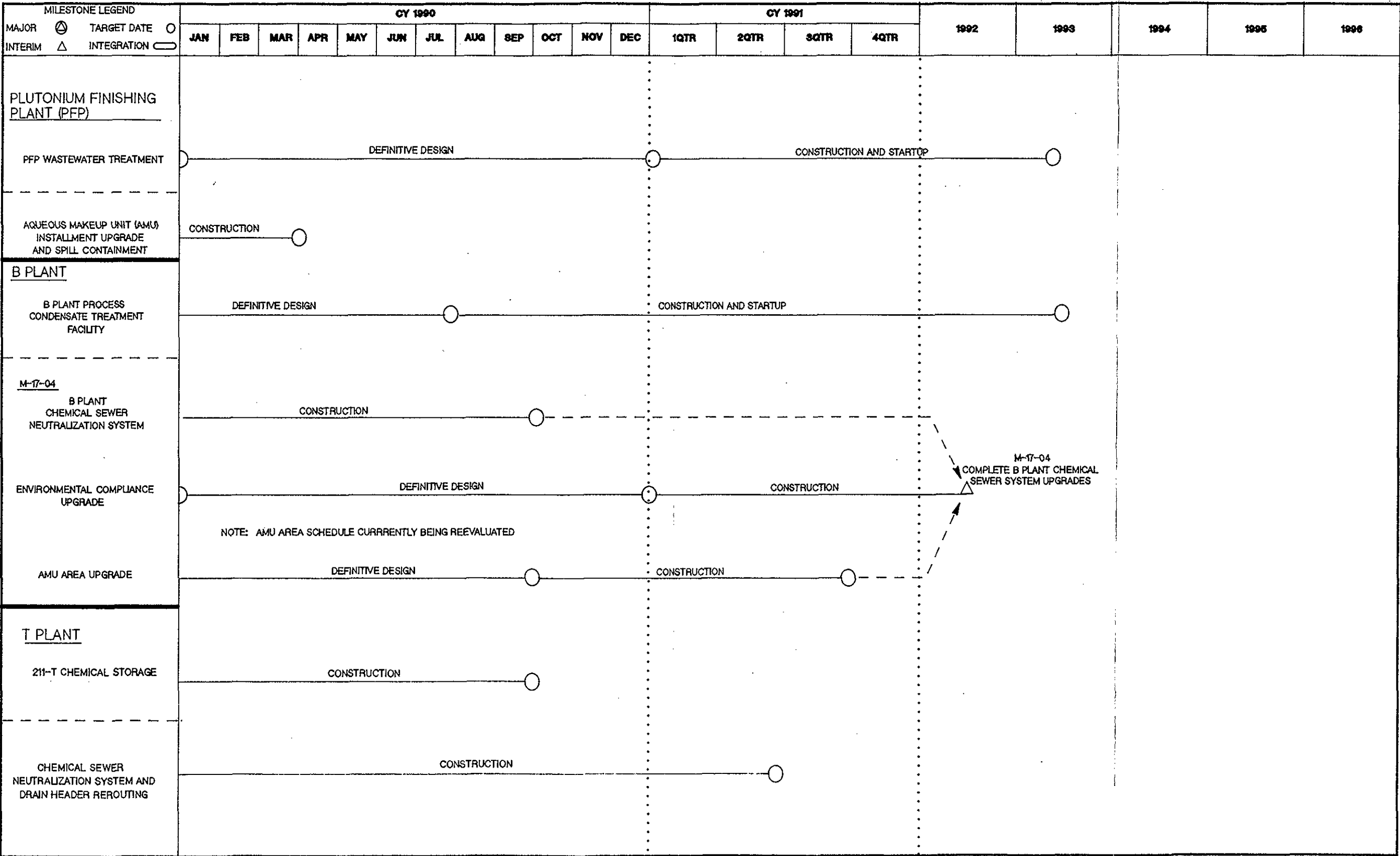
## ACTION PLAN WORK SCHEDULE

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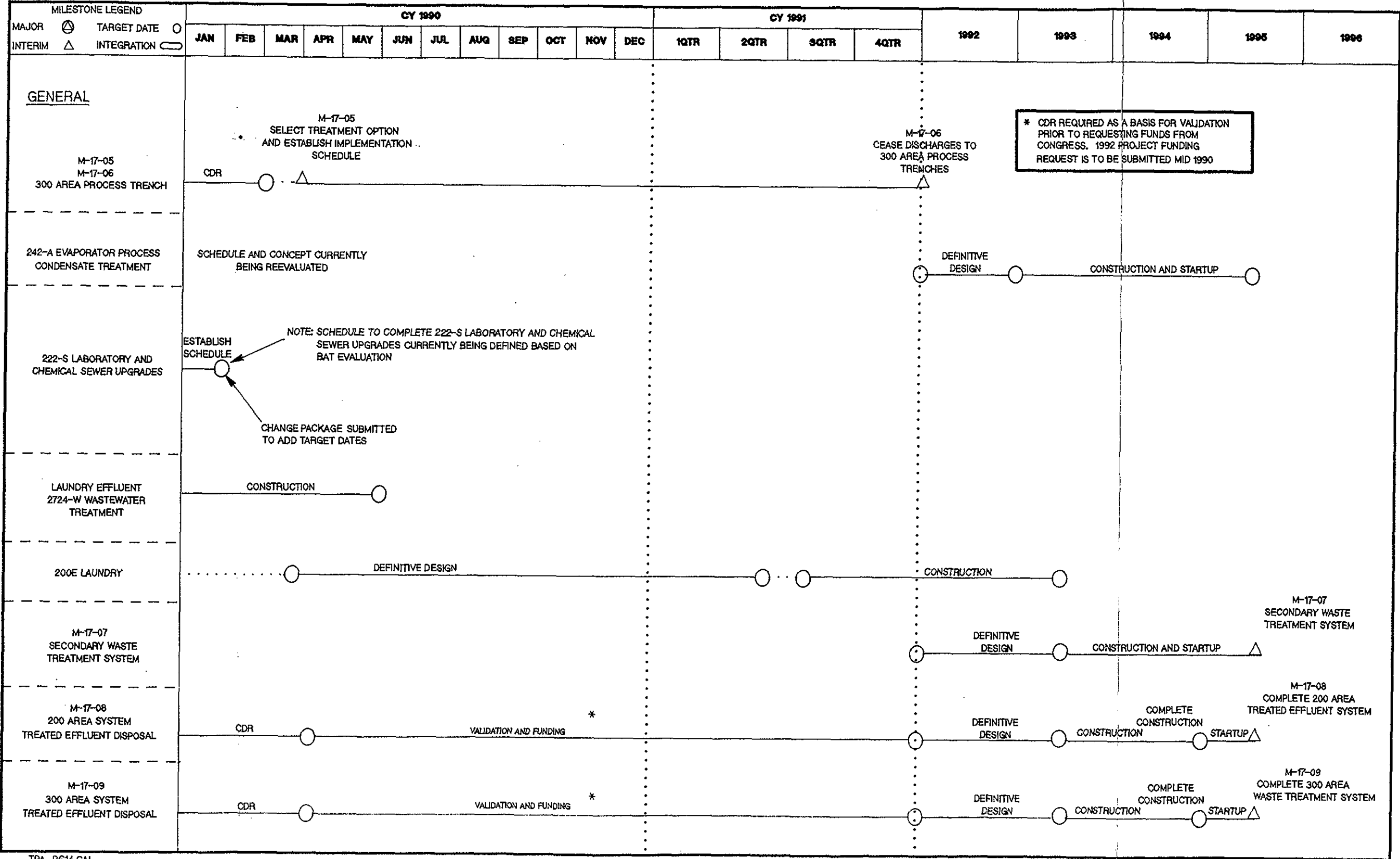
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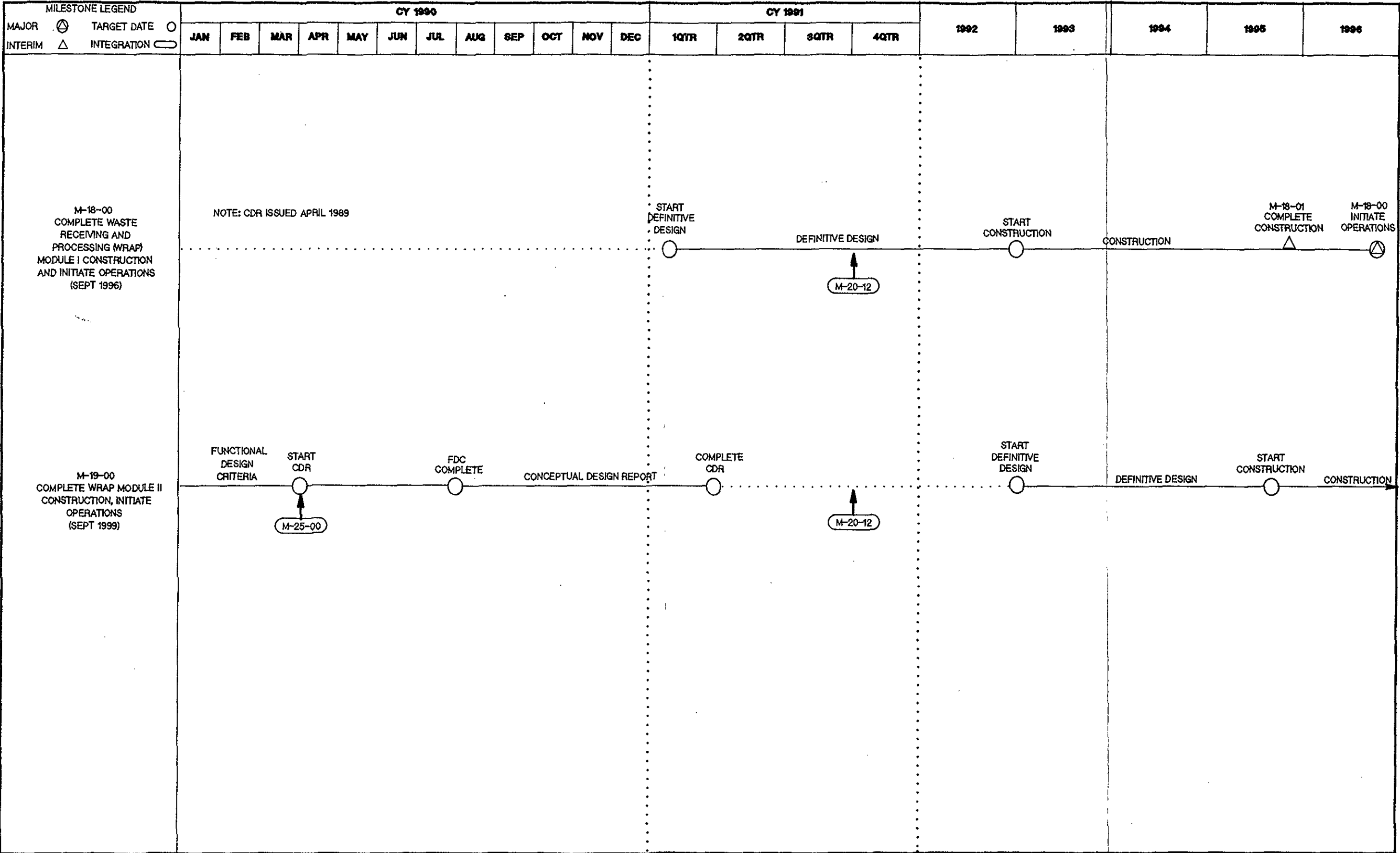


# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE



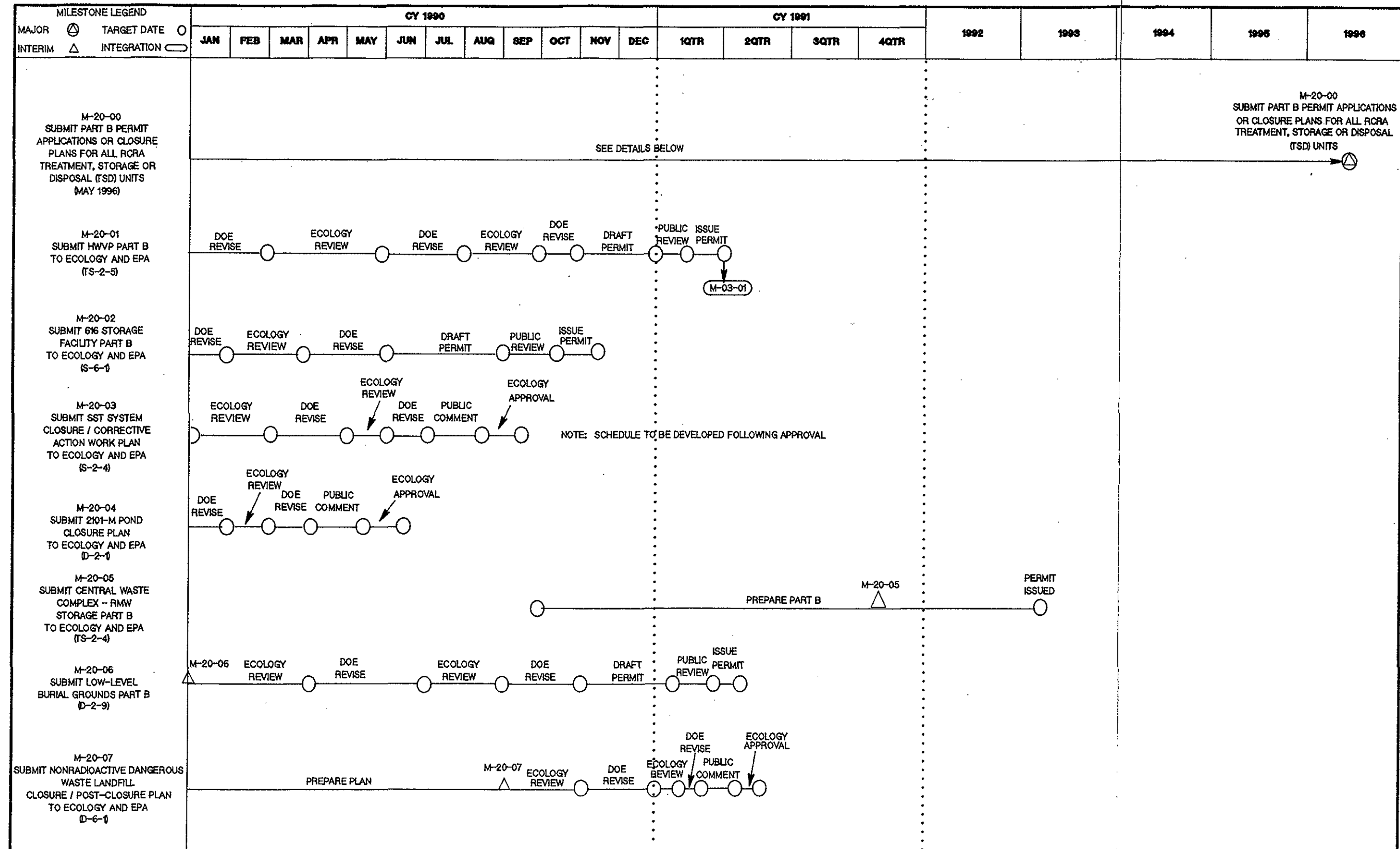
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ACTION PLAN WORK SCHEDULE



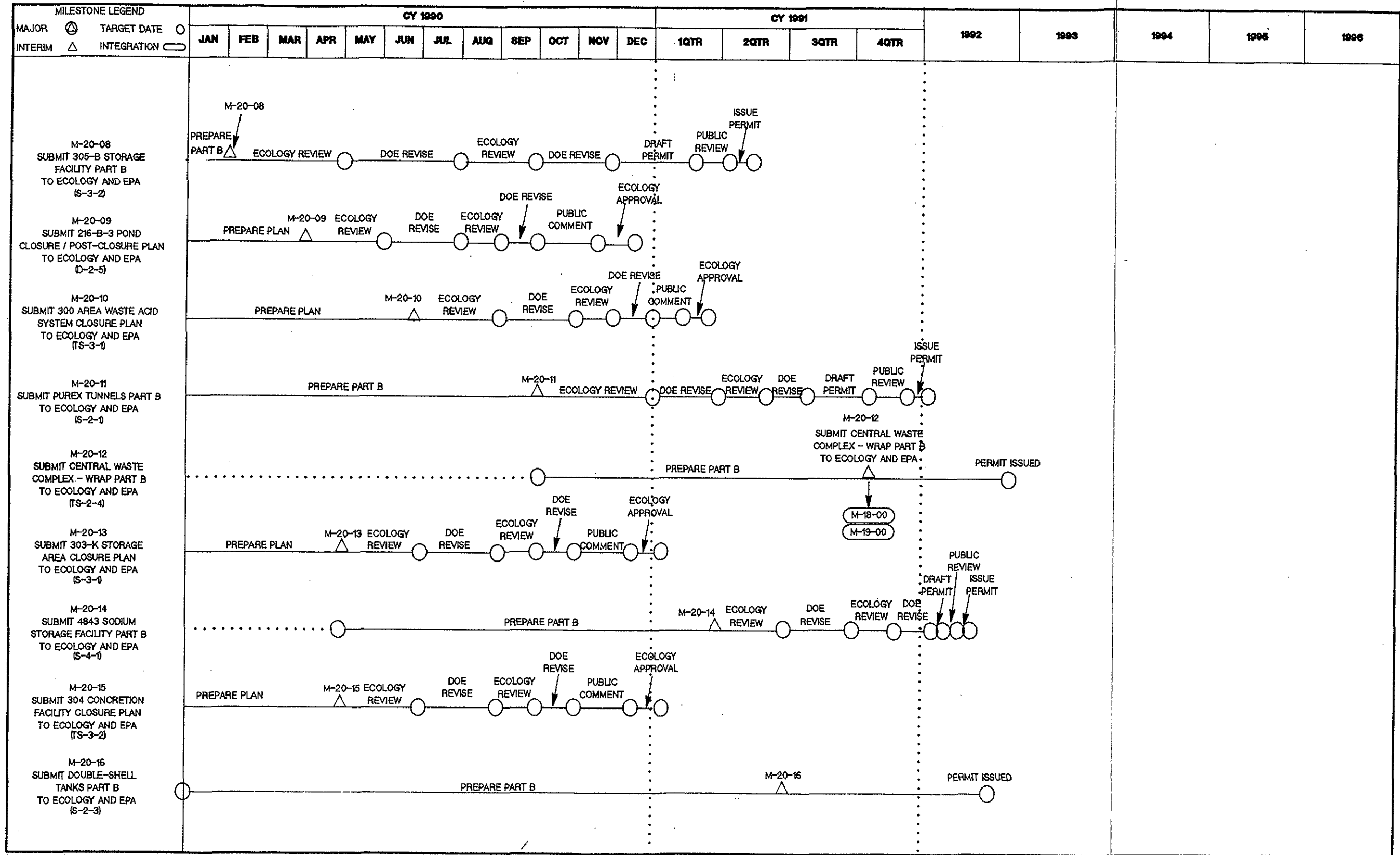
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## ACTION PLAN WORK SCHEDULE

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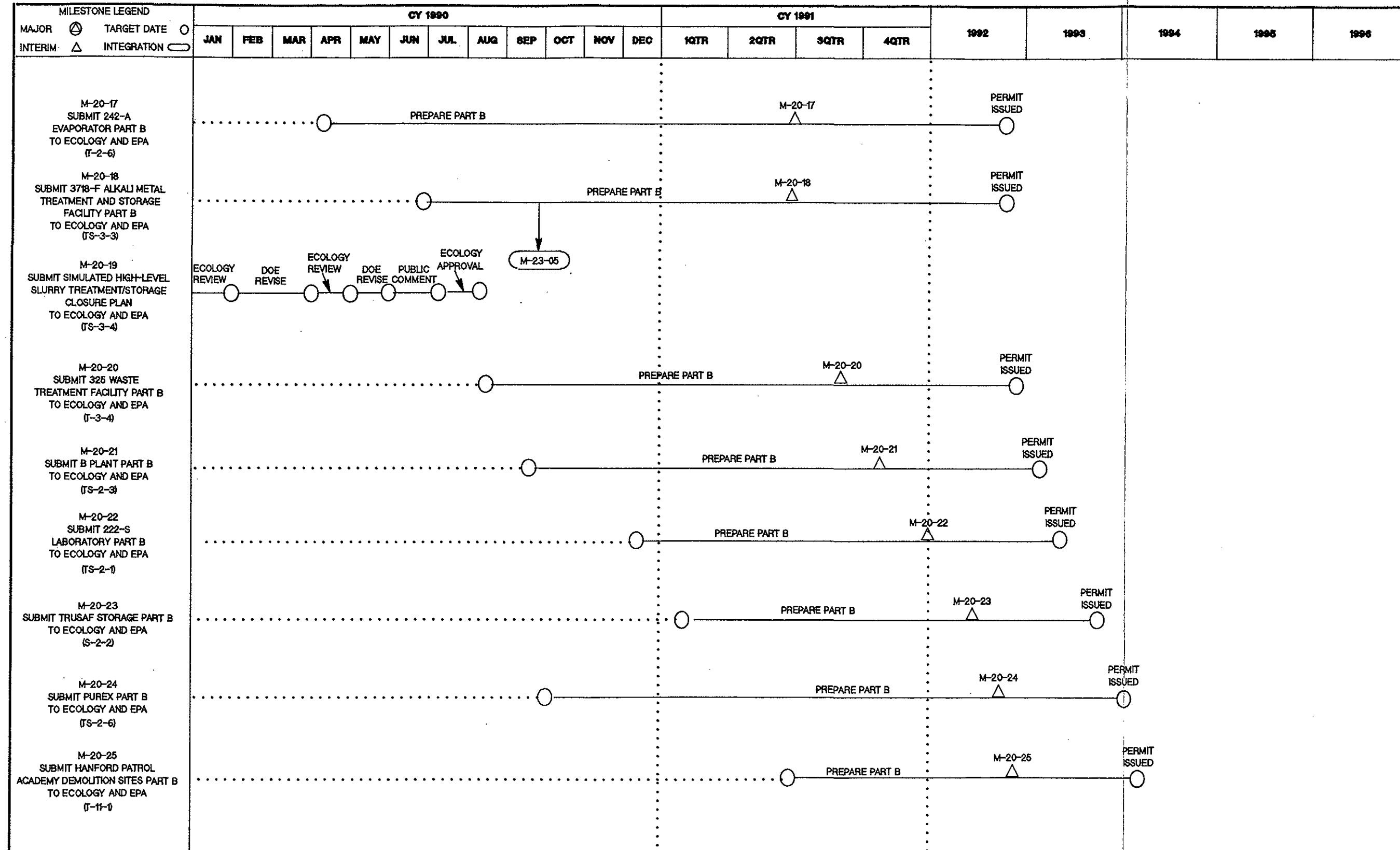
FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
ACTION PLAN WORK SCHEDULE



# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

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FIGURE D-1 WORK SCHEDULE.

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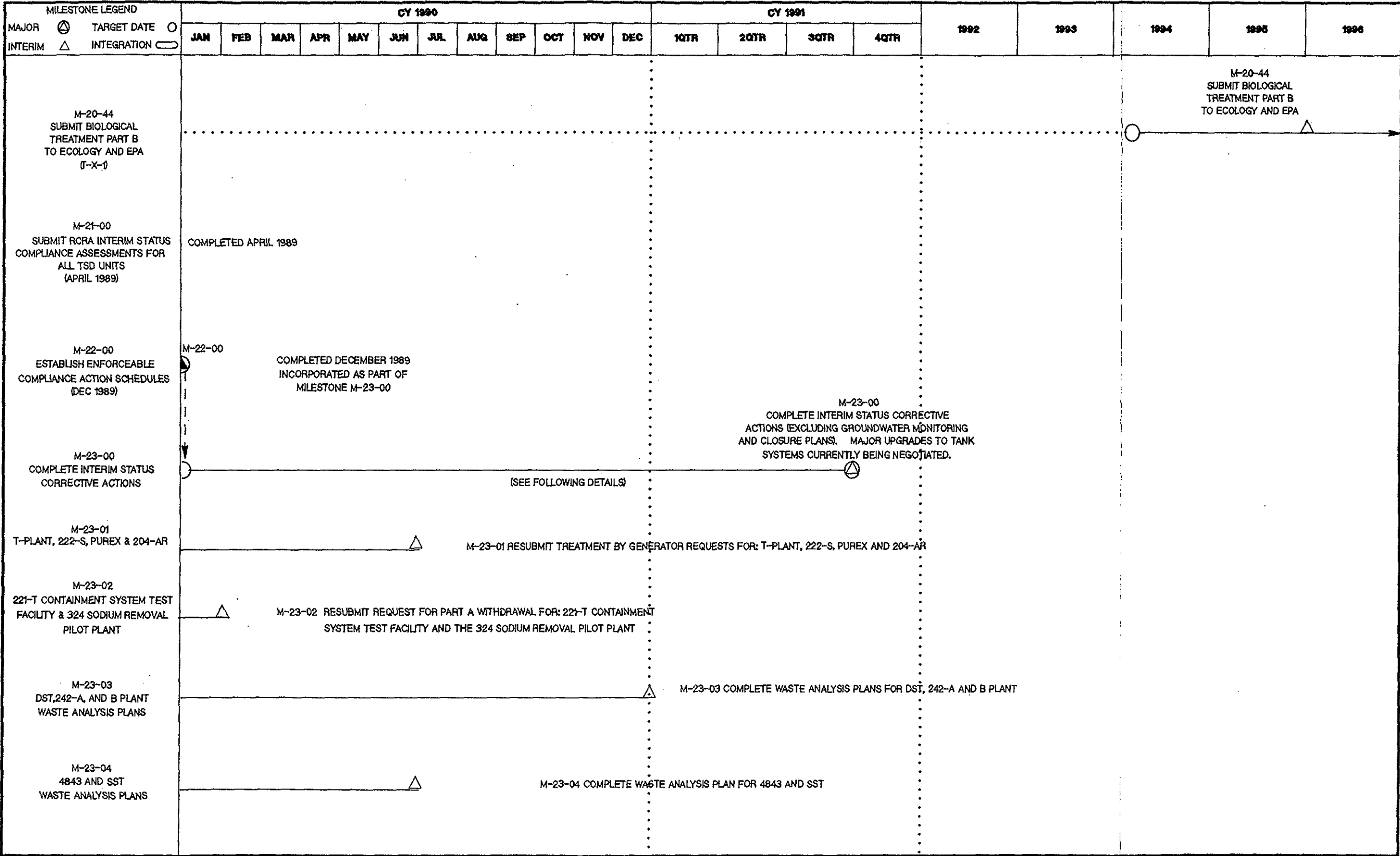


FIGURE D-1 WORK SCHEDULE

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

ACTION PLAN WORK SCHEDULE

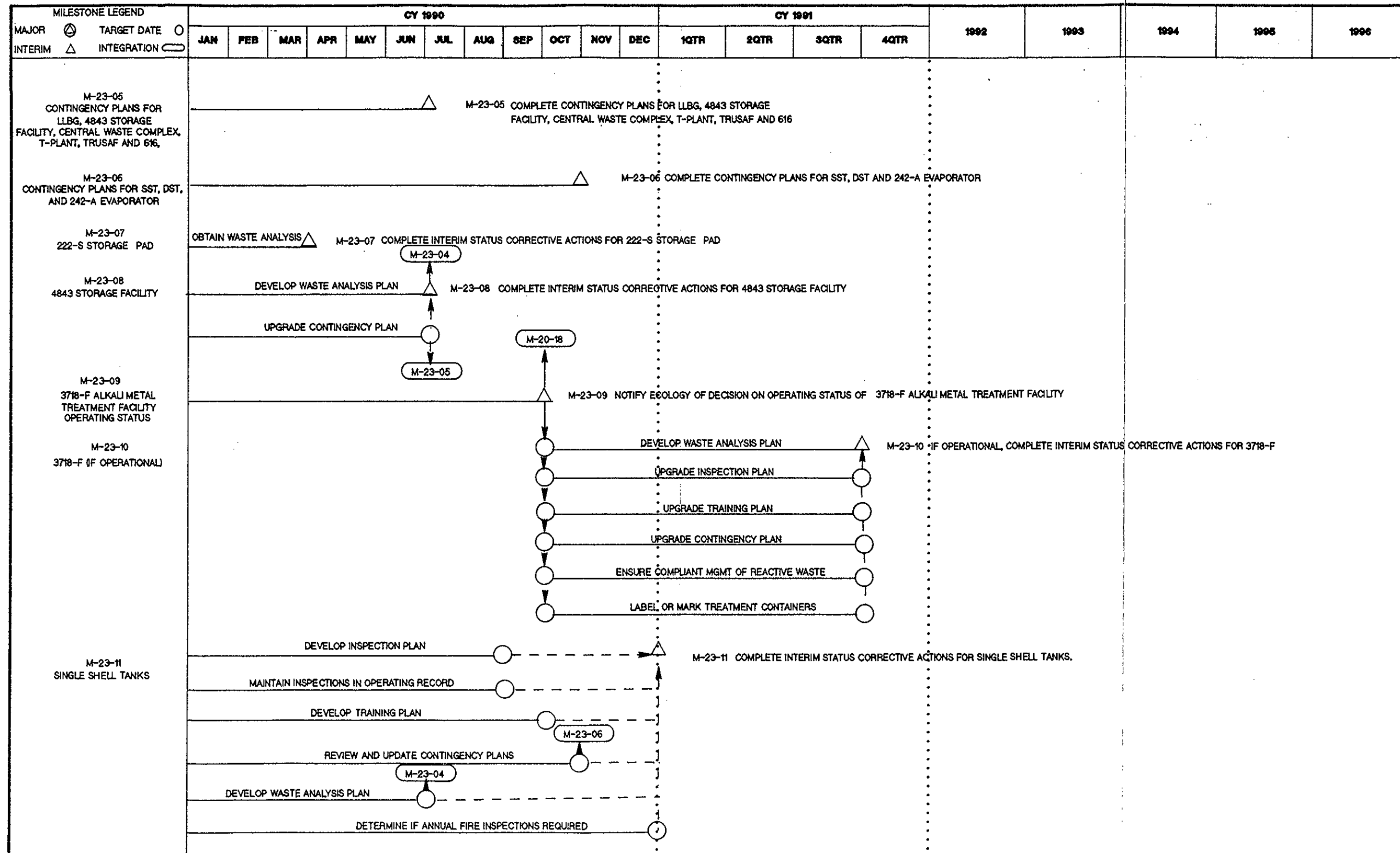
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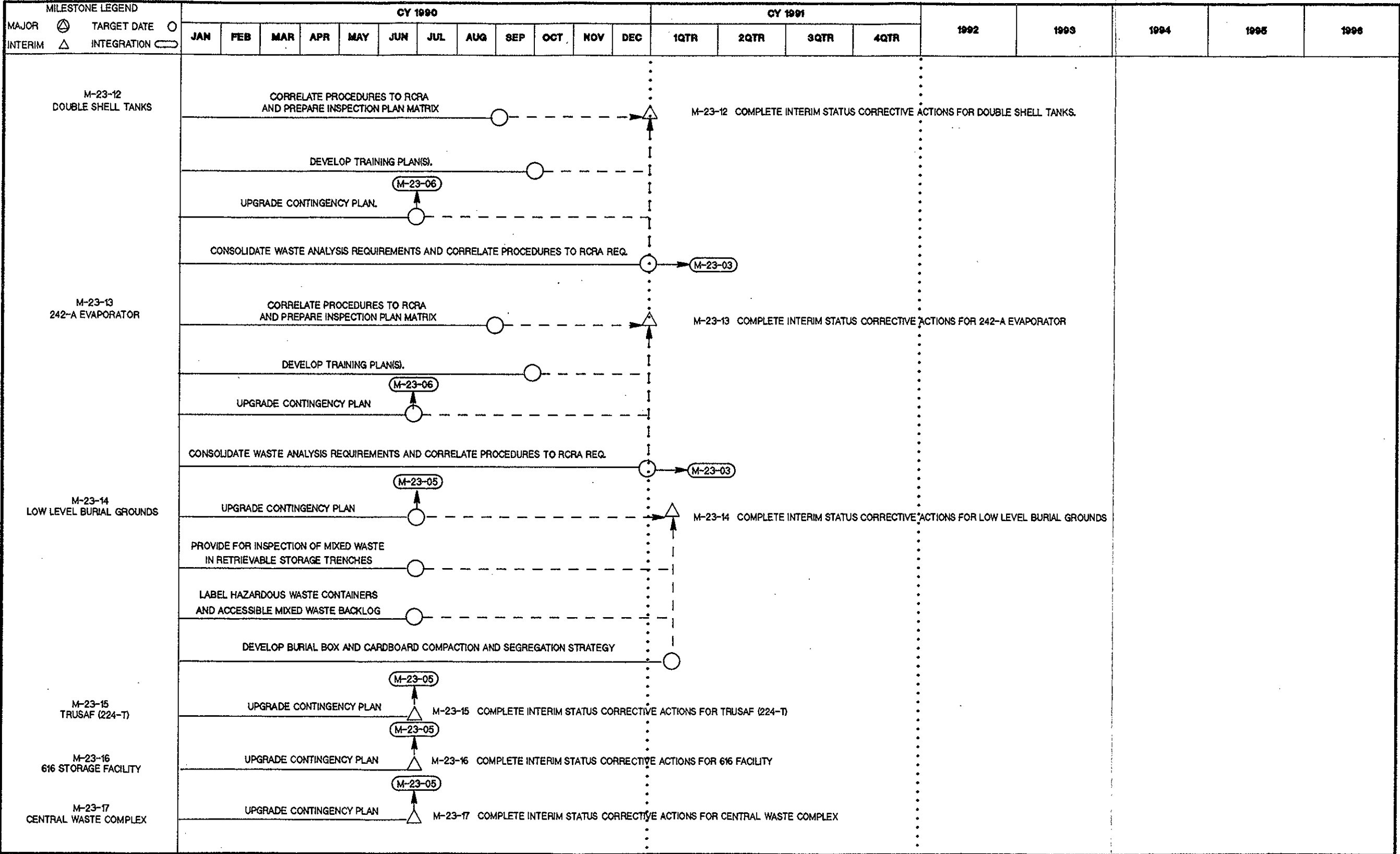
# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

## ACTION PLAN WORK SCHEDULE

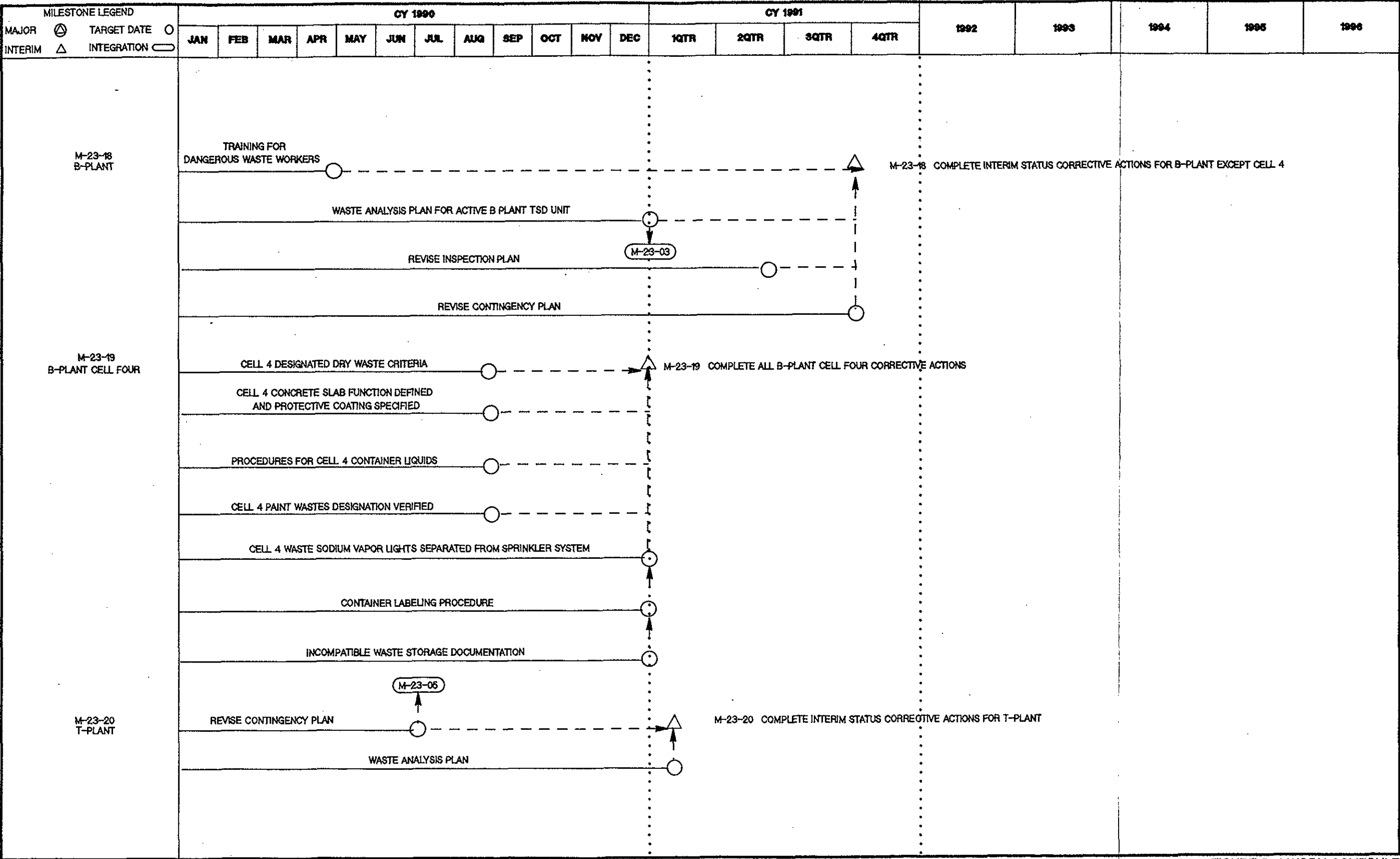
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ACTION PLAN WORK SCHEDULE



FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
ACTION PLAN WORK SCHEDULE



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FIGURE D-1 WORK SCHEDULE

# Appendix E

## Key Individuals

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