

FERNALD CLEANUP PROGRESS BRIEFING

FEBRUARY 2001

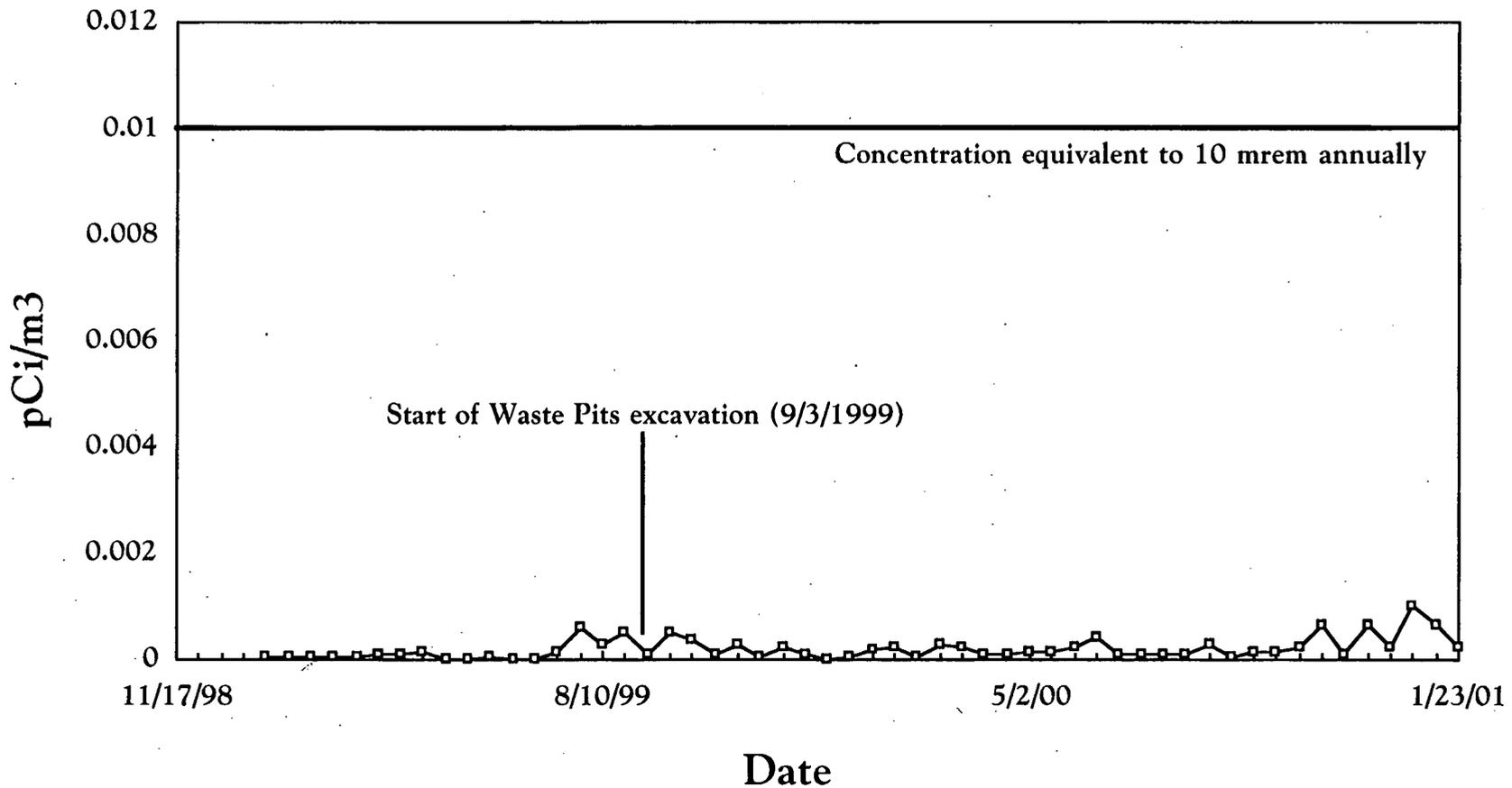
6:30 p.m. Opening Remarks	Gary Stegner
6:35 p.m. FCAB	Jim Bierer
6:40 p.m. Fenceline Monitoring	Kathleen Nickel
6:45 p.m. Project Updates	
Waste Pits Remedial Action Project	Dave Lojek
Soil & Disposal Facility Projects	Rob Janke
Decontamination & Dismantlement	John Trygier
Silos Project	Nina Akgunduz
Aquifer Restoration/Wastewater Project	Rob Janke
Waste Generator Services	Randy Janke
Nuclear Materials Disposition	Randy Janke

Question and Answer Session

8:30 p.m. Adjourn

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TOTAL URANIUM (BIWEEKLY SAMPLES) LOCATION: AMS-3



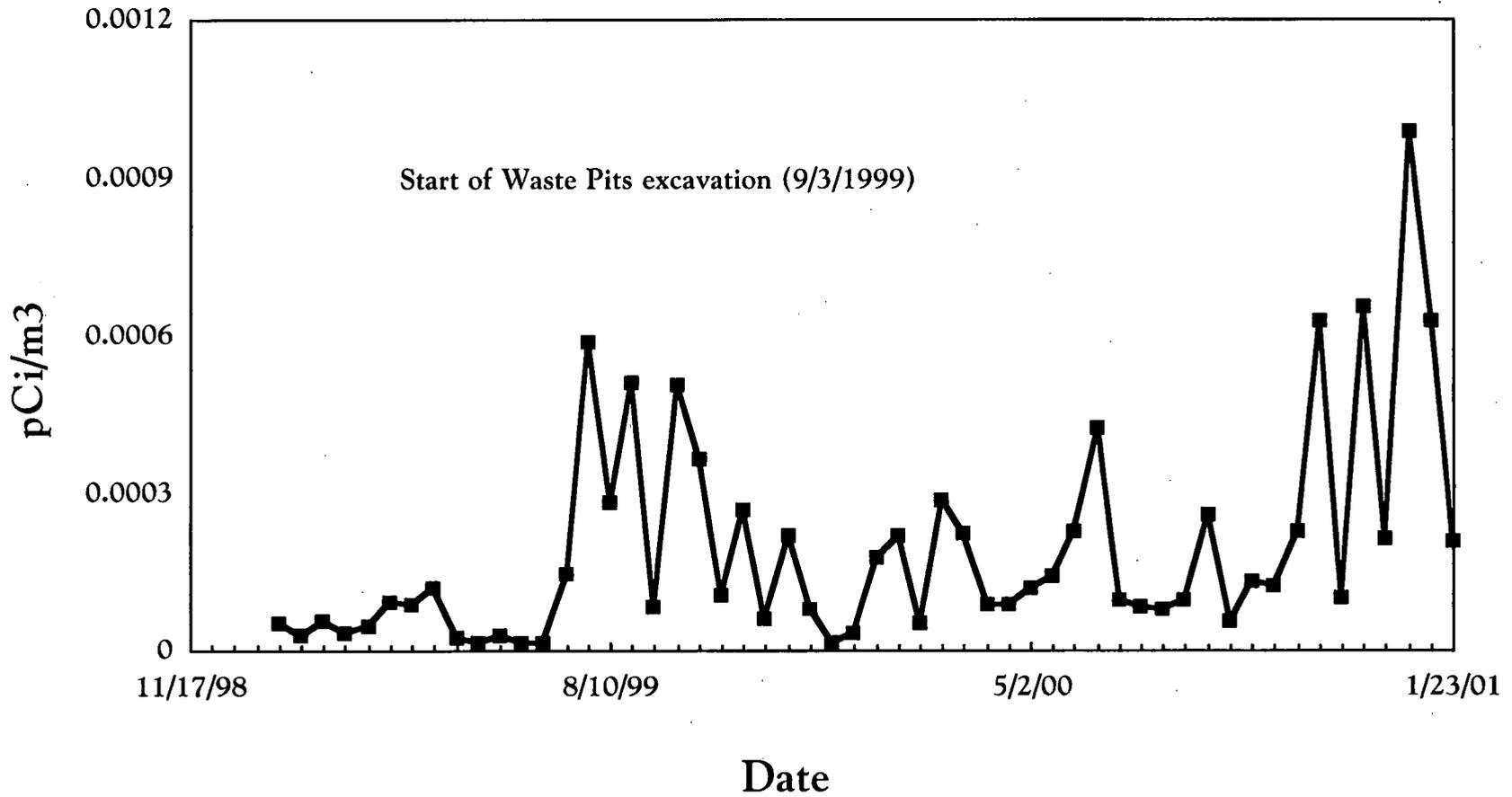
Note: 10 mrem annual limit is NESHAP effective does equivalent standard for members of the public.

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TOTAL URANIUM (BIWEEKLY SAMPLES)

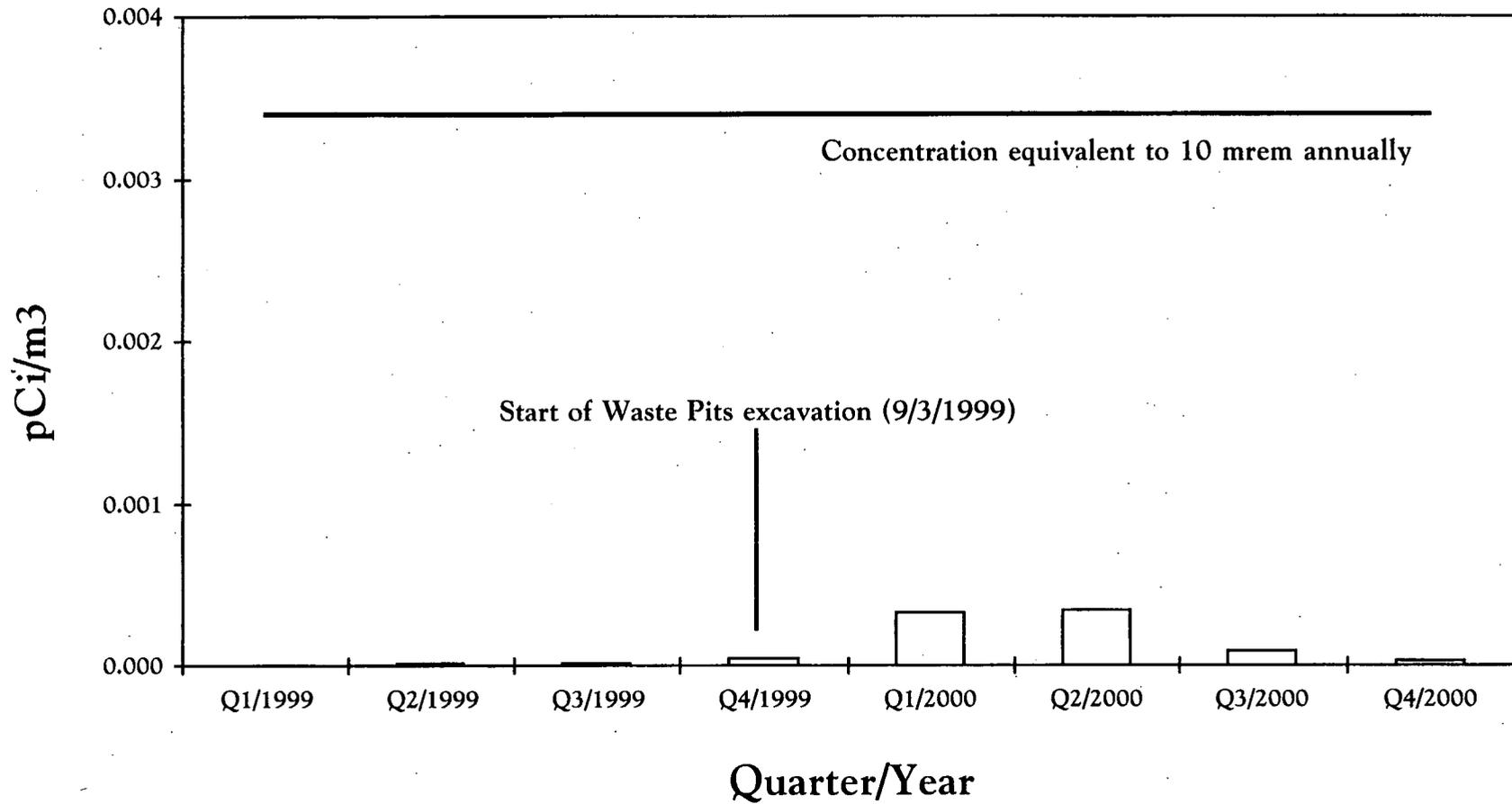
LOCATION: AMS-3



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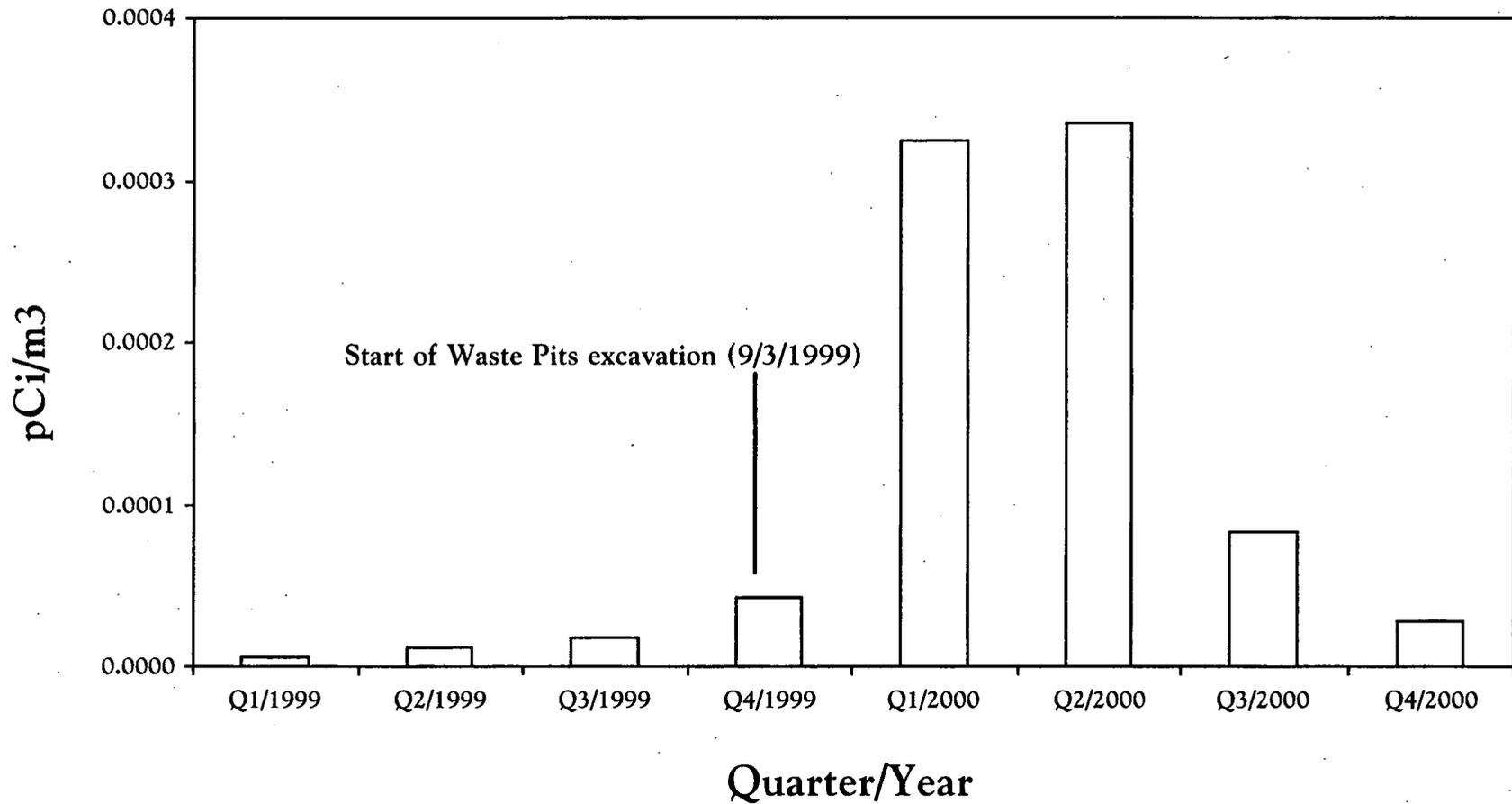
THORIUM 230 (QUARTERLY SAMPLES) LOCATION: AMS-3



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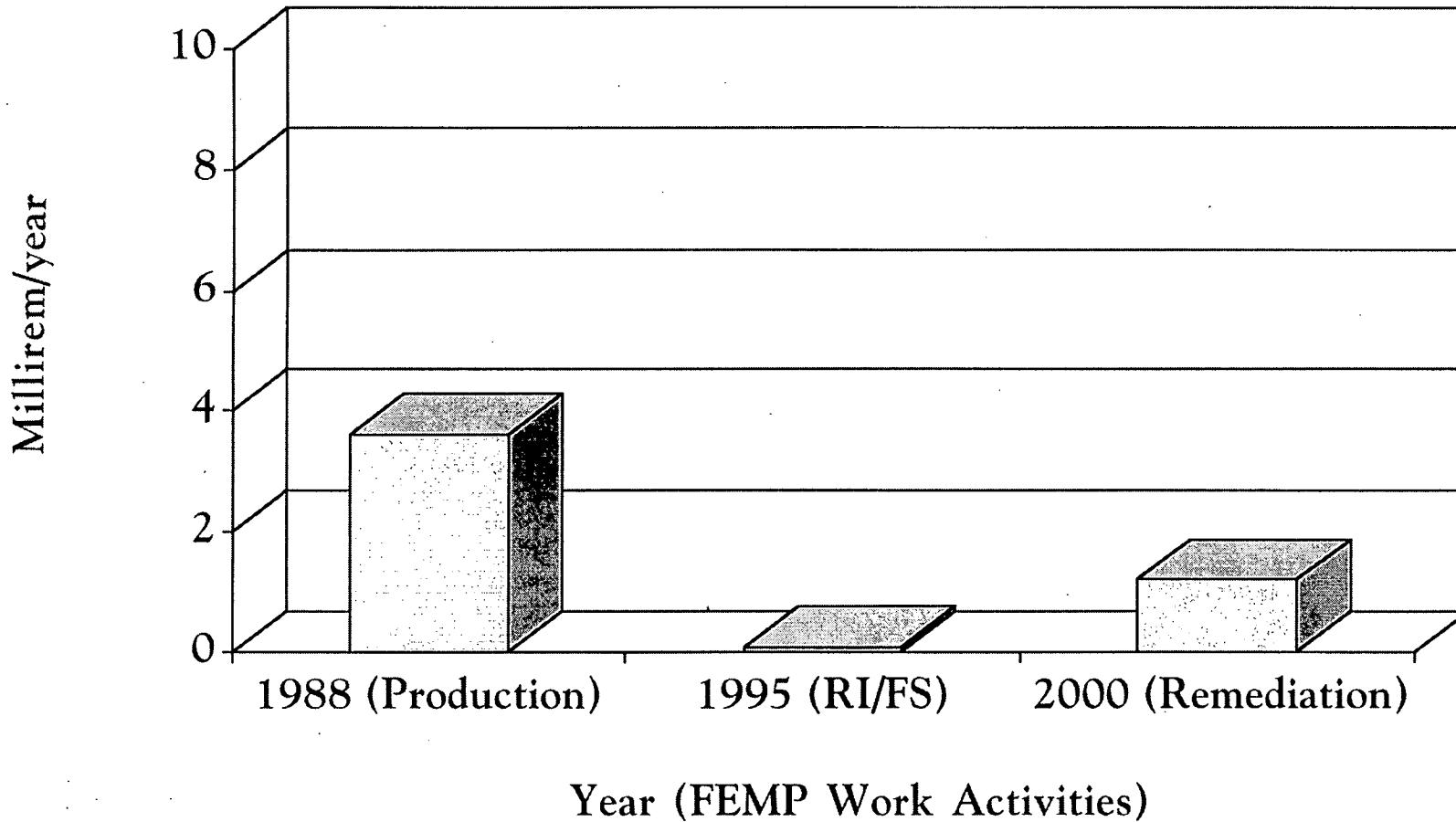
THORIUM 230 (QUARTERLY SAMPLES) LOCATION: AMS-3



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COMPARISON OF FEMP AIR EMISSIONS TO WORK ACTIVITIES



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PROJECT NEWS

WASTE PITS REMEDIAL ACTION PROJECT

- Rail transportation
- Waste pit excavation
- Dryer operations

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PROJECT NEWS

SOIL & DISPOSAL FACILITY

PROJECT

- Completed 80 percent of the Enhanced Permanent Leachate Transmission System construction
- Dispositioned more than 330 rolloff boxes of debris from the Bulk Debris Transfer Area
- Awarded contract to cap Cell 1 to IT Corp
 - IT Corp submitted Safe Work Plan, Surface Water Management Plan and Borrow Area Management Plan

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PROJECT NEWS

SOIL & DISPOSAL FACILITY PROJECT

- Awarded contract for Biointrusion layer stone to Davon
- Approved plan for Area 1, Phase III/Paddys Run debris removal
- Certified approximately 67 additional acres; totaling 417 certified acres

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ON-SITE DISPOSAL FACILITY MATERIAL TRANSFER AREA DEBRIS STOCKPILES



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PROJECT NEWS

DECONTAMINATION & DISMANTLEMENT

- Plant 5
 - Completing removal of the metal siding and initiated exterior transite removal
 - Began shearing activities
 - Completed 80 percent
- Plant 6
 - Continuing interior demolition and removal of equipment and asbestos-contaminated material
 - Began demolition of the Water Treatment Area and Old Ingot Furnace Stack
 - Completed 55 percent

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PROJECT NEWS

SILOS PROJECT

Accelerated Waste Retrieval (AWR) Project Status

- Submitted revised Silos 1 and 2 AWR Project Remedial Design Package to EPAs for final review and approval
- Received conditional approval from the USEPA on Remedial Design Package

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PROJECT NEWS

SILOS PROJECT

Construction Activities

- Completed Radon Control System Air Handling Building walls
- Began erection of the first floor walls of the Transfer Tank Area Building
- Continuing Site Preparation construction for the pipe rack foundations

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PROJECT NEWS

SILOS PROJECT

Silos 1 and 2 Remediation Project Status

- Initiated work on Conceptual Design
- Fluor Integrated Team conducting design support activities

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PROJECT NEWS

SILOS PROJECT

Silo 3 Project Status

- Finalized settlement agreement with Rocky Mountain Remediation Services (RMRS) to terminate contract
- Completed RMRS demobilization, December 2000
- Evaluating path forward

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PROJECT NEWS

AQUIFER RESTORATION/ WASTEWATER PROJECT

- Continued trenching and pipe installation for the Waste Pits Stormwater Reroute Project; completed 55 percent
- Completed two additional geoprobe sampling in the Former Production Area and Southern Waste Units
- Completed aquifer pumping test in support of the design of Phase I of the Waste Storage Area Extraction Module

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PROJECT NEWS

AQUIFER RESTORATION/ WASTEWATER PROJECT

- Continued aggressive rehabilitation of re-injection wells
- Completed injection well #10
- Pumped 349,000,000 gallons from aquifer
- Treated 209,000,000 gallons of groundwater

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WASTE PITS STORMWATER REROUTE

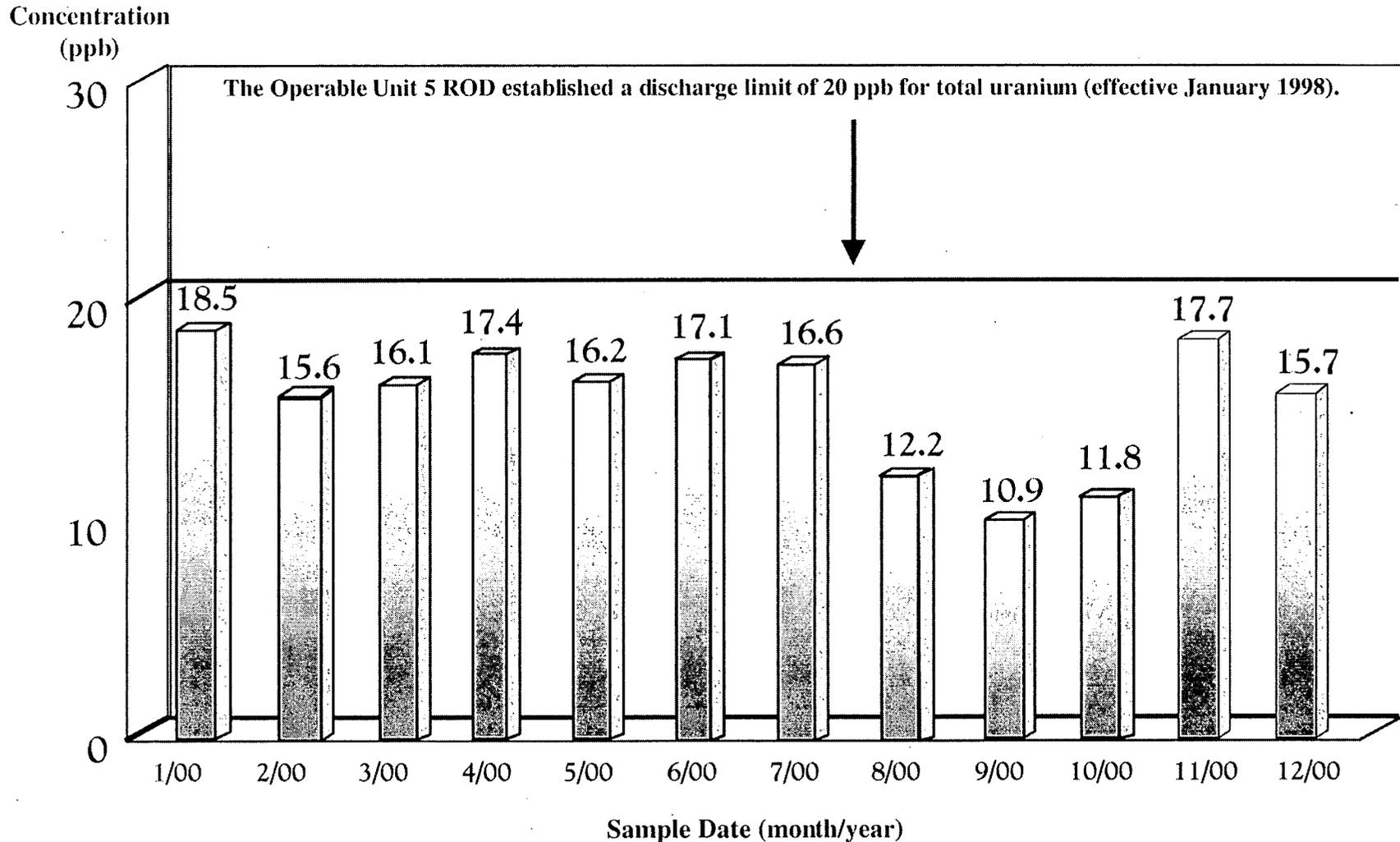


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Photo taken January 2001

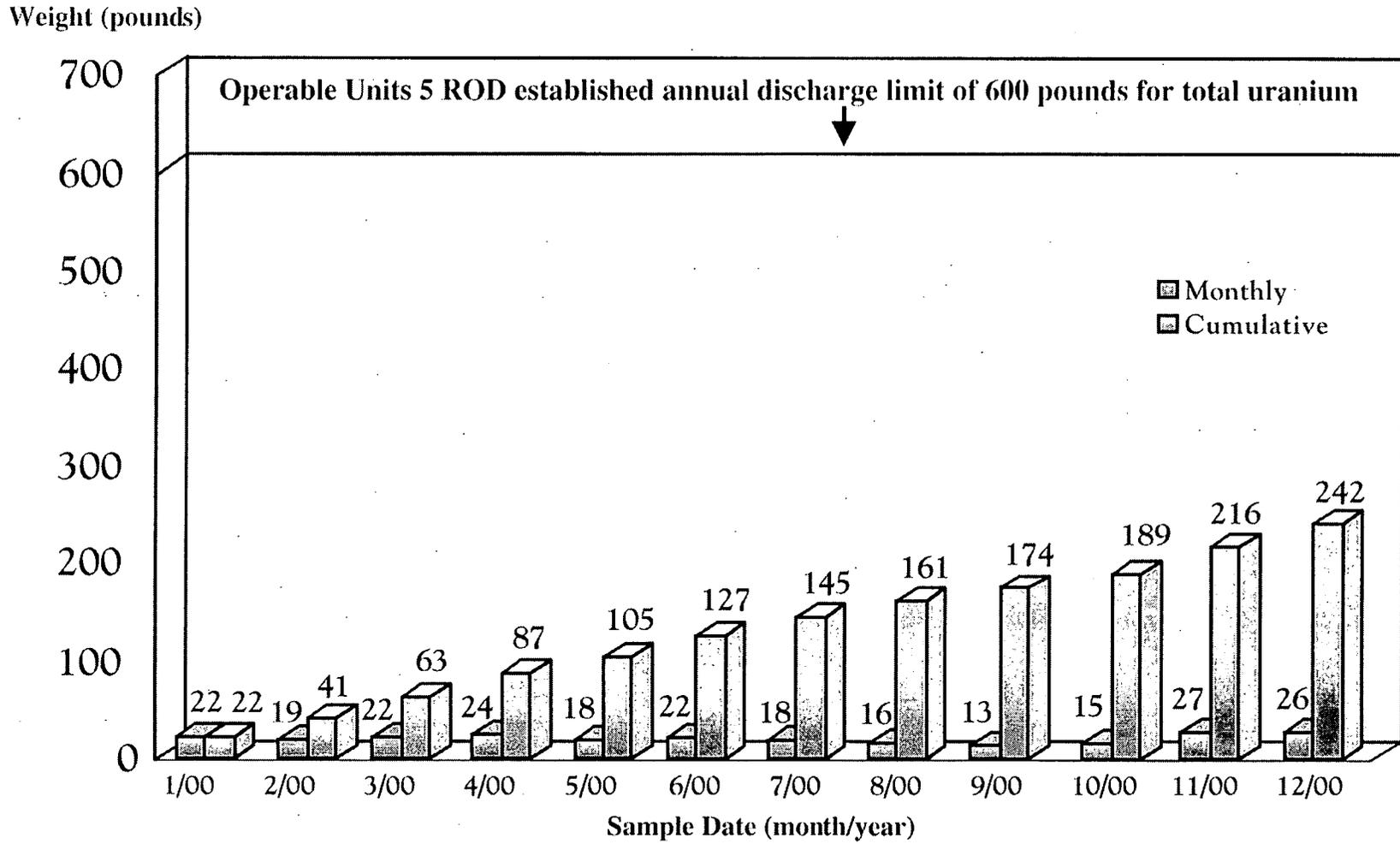
AVERAGE MONTHLY TOTAL URANIUM CONCENTRATION DISCHARGED TO THE GREAT MIAMI RIVER IN 2000



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POUNDS OF URANIUM DISCHARGED TO THE GREAT MIAMI RIVER IN 2000



Note: Sum of monthly discharges may not always agree with cumulative total because of rounding differences.

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PROJECT NEWS

WASTE GENERATOR SERVICES

- Shipments to Nevada Test Site
 - December total - 10,475 cubic feet;
 - January total - 28,121 cubic feet
- Thorium Legacy Waste
 - Completed nine shipments
 - Completed 24 of 31 projected shipments

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PROJECT NEWS

WASTE GENERATOR SERVICES

- Waste Treatment and Waste Storage
 - Began preparation of Toxic Substance Control Act Incinerator (TSCA) application for more than 20,000 gallons of liquid mixed wastes (LMW) contained in Batch 10; completed batch analysis and is currently being evaluated by TSCA staff
 - Bulking PCB-contaminated LMW into Batch 11
 - Bulking non-PCB-contaminated LMW into Batches 12 and 13
 - Continued Plant 1 pad inventory segregation and verification activities in support of future shipping campaigns

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PROJECT NEWS

NUCLEAR MATERIALS DISPOSITION

- Nuclear materials shipments to Portsmouth, OH
 - More than 92 metric tons uranium (MTU) shipped in FY01
 - Shipped total of 3,263 MTU
 - Equates to 86 percent of overall project goal of 3,801 MTU
- Other activities
 - Installed vacuum transfer system for repackaging less than one percent U-235 enriched uranium compounds and oxides into shippable quantities
 - Working with private sector customer to finalize potential sale for 80 MTU of enriched uranium metal
 - Evaluating feasibility of off-site uranium recovery/reconditioning option

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PROJECT NEWS

NUCLEAR MATERIALS DISPOSITION

- Uranium Waste Disposition Projects
 - Evaluating the scope to take advantage of lessons learned from repackaging efforts
 - Continuing characterization of containers that have been visually inspected
 - Evaluating feasibility of off-site processing option to meet waste acceptance criteria of final disposal location

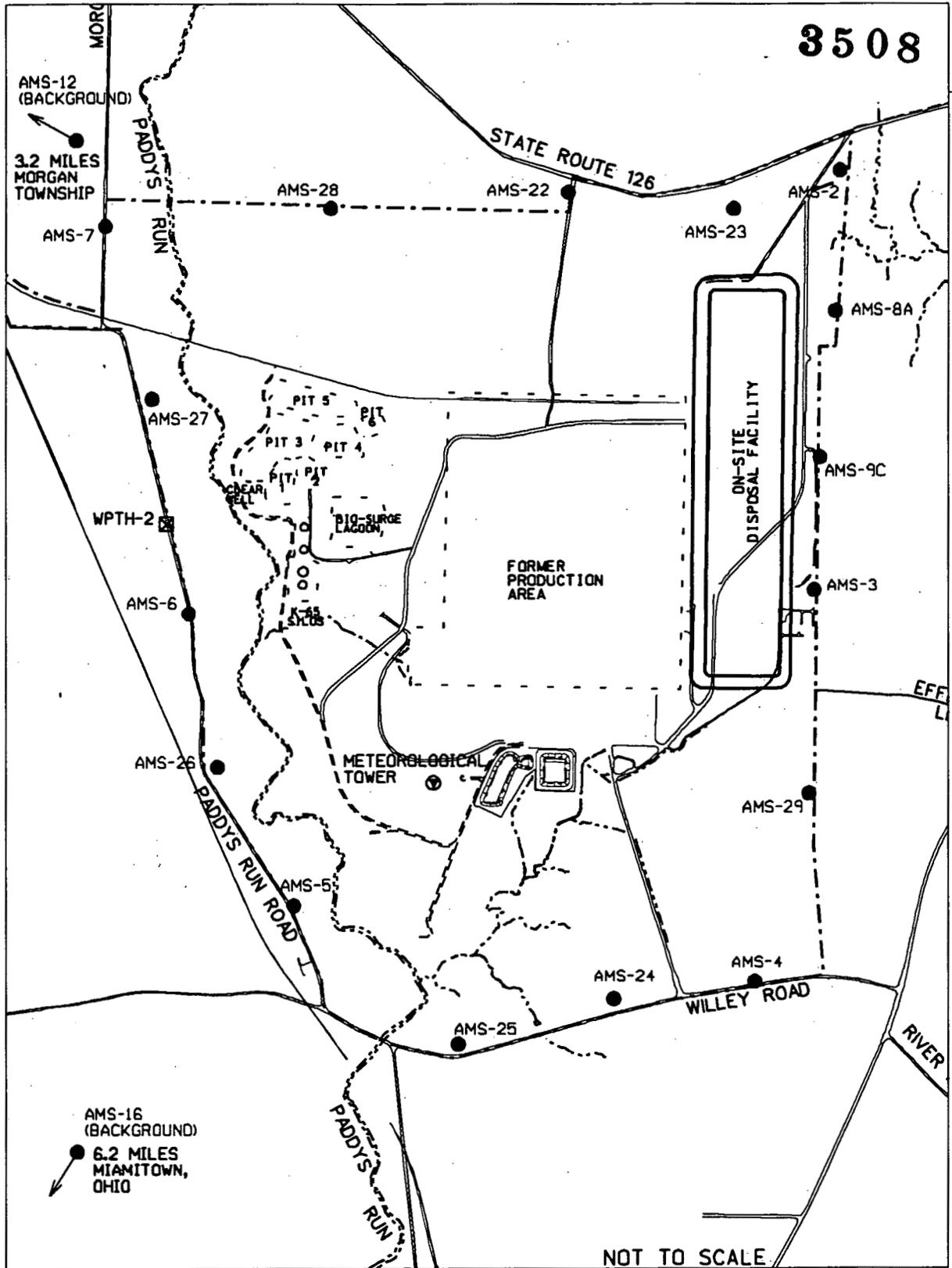
Information Sheet

Changes to Background Subsurface Soil Conditions

- CERCLA requires the characterization of background surface and subsurface soils to determine the concentrations of constituents of concern.
- In 1992, FEMP collected and analyzed off-property soil samples as part of the Operable Unit 5 RI/FS. Samples were used to determine representative background conditions (1993 Background Study), which were subsequently used to develop soil final remediation levels (FRLs).
- In the 1992 background study, subsurface soil data for the 12- to 36-inch depth intervals were not collected. The background study only provided data for the intervals 0 to 6 inches, 36 to 42 inches, and 48 to 54 inches.
- Anomalous levels of naturally occurring constituents (arsenic and beryllium) in the 12 to 36 inch depth interval were identified during the pre-certification characterization process in an off-property cultivated area in 2000.
- In Summer of 2000, subsurface soil data for the 12- to 36-inch depth interval were collected in eleven cultivated off-property areas uninfluenced by past FEMP operations to provide reference data.
- Data from these eleven properties showed concentrations in the subsurface soils of most of the metals, including arsenic and beryllium, significantly higher than those previously reported in the surface and subsurface soil intervals sampled and analyzed.
- In general, the new background data showed that subsurface soil concentrations of arsenic and beryllium among other metals were significantly higher than the surface soil concentrations and peaked in the 12-to-24 inch interval; while, the 0-to-6 inch intervals between the two studies were consistent.
- New subsurface background data will be incorporated into the overall background soil database and presented in an addendum to the 1993 Background Study Report.
- It has also been recognized during the implementation of the soil certification process for off-property soils which have been significantly cultivated, the Site-wide Excavation Plan (DOE, 1997) did not contain a definitive approach for certification in the off-property cultivated area.
- An addendum to the Site-wide Excavation Plan, detailing the general certification process to be used in the certification of off-property cultivated areas, has also been developed and was submitted on January 19, 2001 to the U.S. EPA and Ohio EPA for review and approval.
- A Fact Sheet was issued on January 9, 2001 detailing the changes to background soil conditions.

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LEGEND:

----- FEMP BOUNDARY

● AMS LOCATION

● DISTANCE FROM CENTER OF FORMER PRODUCTION AREA TO AMS LOCATION OFF MAP

☒ THORIUM MONITOR LOCATION

FINAL

NOT TO SCALE

IEMP AIR MONITORING LOCATIONS

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COMPARISON OF OSDF INTERIM COVER OPTIONS

	Approach 1 1 Year Seasonal Cover	Approach 2 4 Year Enhanced Seasonal Cover	Approach 3 4+ Year Geomembrane Cover	Approach 4 Final Cover
Description	<ul style="list-style-type: none"> • 3 feet of material tops clay • Track and roll to stabilize • Grade slopes and channels • Silt fences • Crusting agent • Inspections and maintenance • Condition reports as part of IEMP 	<ul style="list-style-type: none"> • 3 feet of material tops clay • Track and roll to stabilize • Grade slopes and channels • Silt fences • Heavy duty crusting agent • Inspections and maintenance • Resume material placement at end of interim closure period • Condition reports as part of IEMP 	<ul style="list-style-type: none"> • 3 feet of material tops clay • Track and roll to stabilize • Grade slopes and channels • Geomembrane cover • Resume material placement at end of interim closure period • Active storm water management • Condition reports as part of IEMP 	<ul style="list-style-type: none"> • Add material to fill • Slope sides • Place final cover • Covered cells cannot be reopened
Expected Life	<ul style="list-style-type: none"> • Up to 1 year • Reapply crusting agent every 6 mos. 	<ul style="list-style-type: none"> • Up to 4 years • Reapply crusting agent every 6 mos to 1 year 	4 years or more	Final
Time to Implement	One week to install	One week to install	4-6 weeks to install each cover	6-8 months per cell plus time to complete material placement
Cost	\$50,000 per cell per application	\$100,000 per cell per year	\$1 million per cell	\$4 – 5 million per cell
Advantages	N/A	<ul style="list-style-type: none"> • Easier installation • Allows reopening 	<ul style="list-style-type: none"> • Cover could last 4+ years • Less maintenance than seasonal covers 	Provides final configuration
Disadvantages	<ul style="list-style-type: none"> • Not suitable for interim cover needs 	<ul style="list-style-type: none"> • Requires active storm water management • Requires active monitoring and maintenance 	<ul style="list-style-type: none"> • Involves special design, surface grading and installation • Requires specific quality controls • Requires active monitoring and maintenance 	<ul style="list-style-type: none"> • Must build new cells • Requires excavation of much more materials • Covered cells cannot be reopened • Adjacent cells require fill to create suitable slopes • Significant funding and schedule impacts

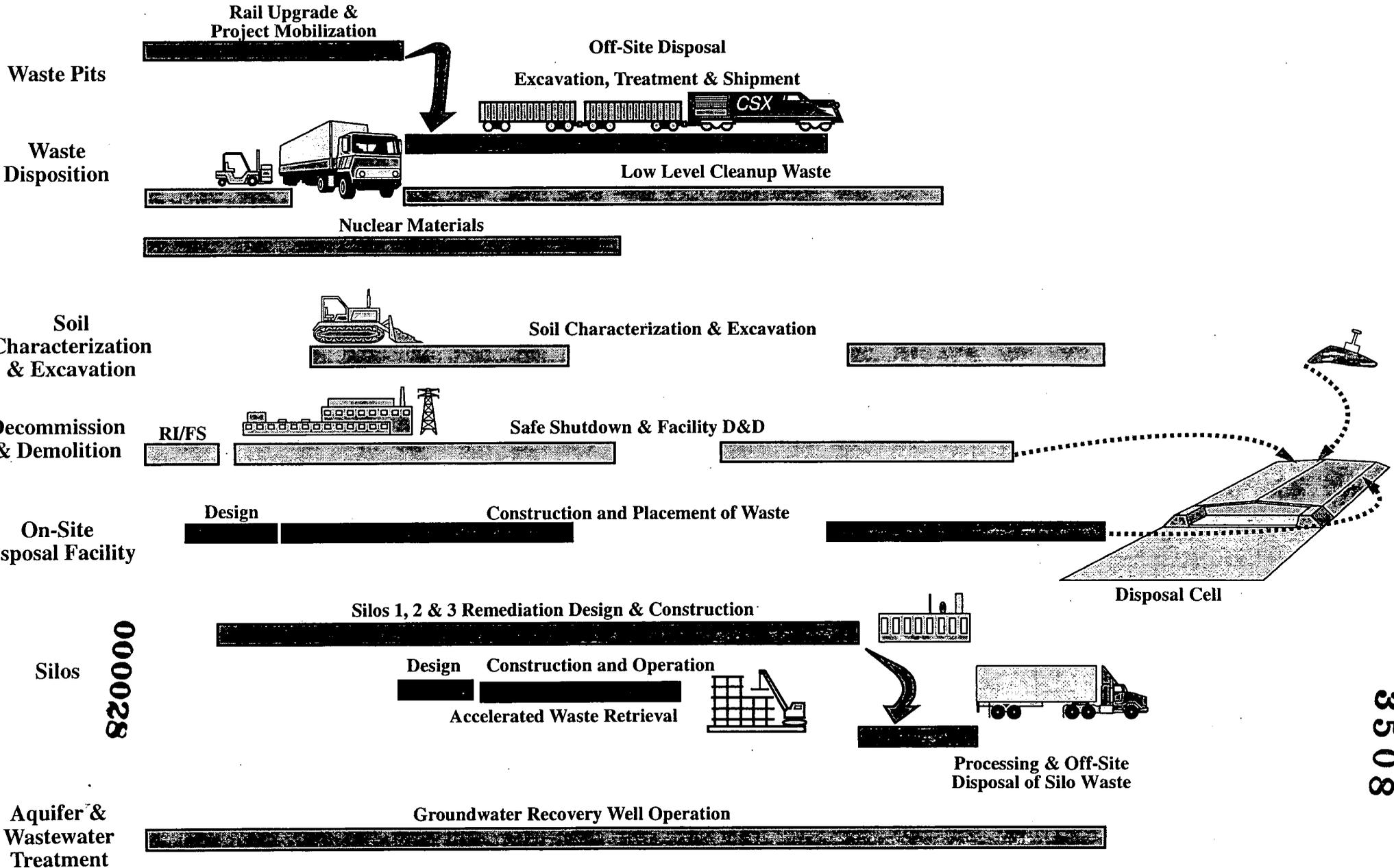
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Prioritization Scenario 2

- Slowdown D&D after Plant 5 & 6
- Shutdown Soil Excavation 3 Years



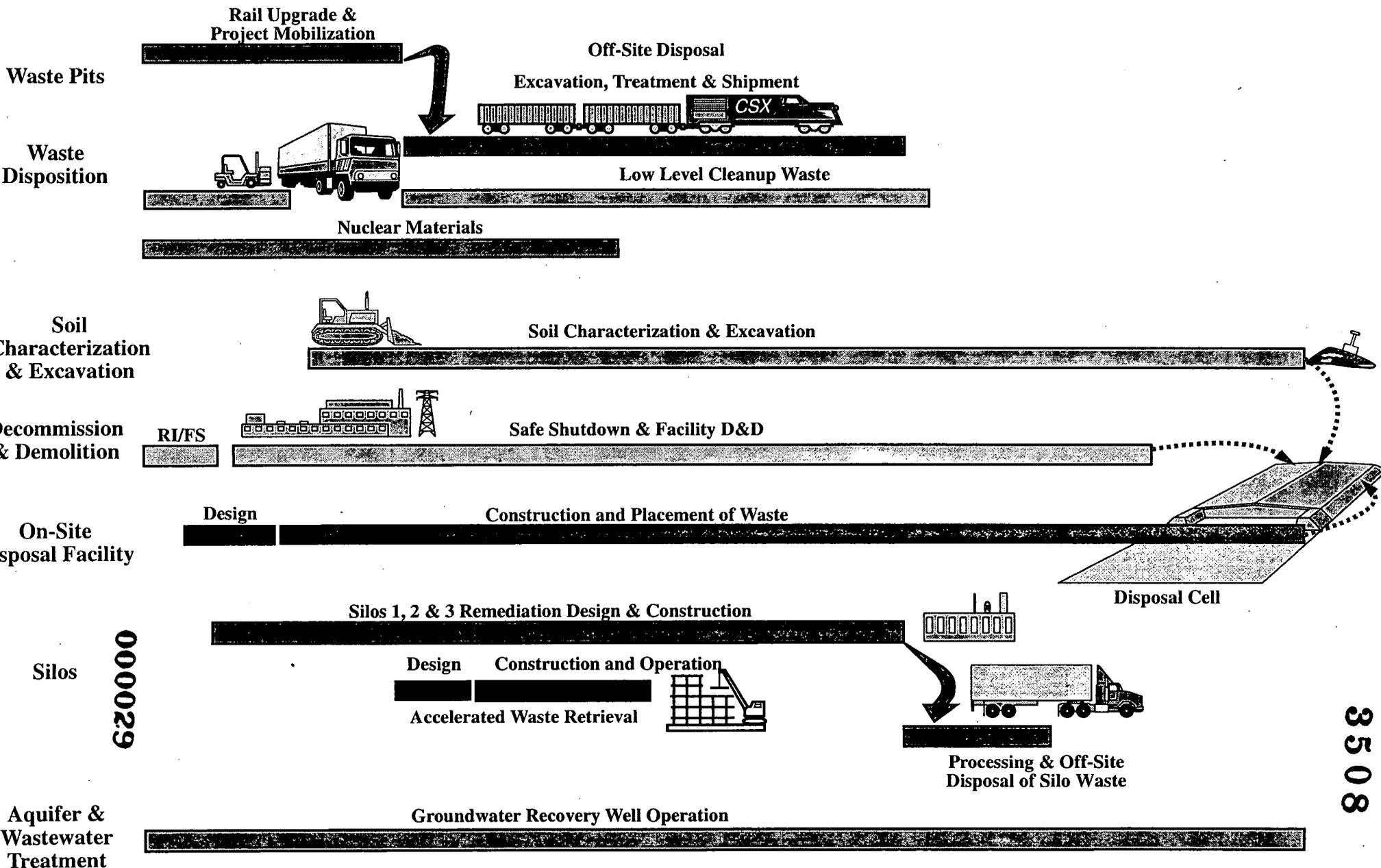
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Prioritization Scenario 3

• Slowdown D&D; Soil Excavation, Waste Pit Operations and Waste Management

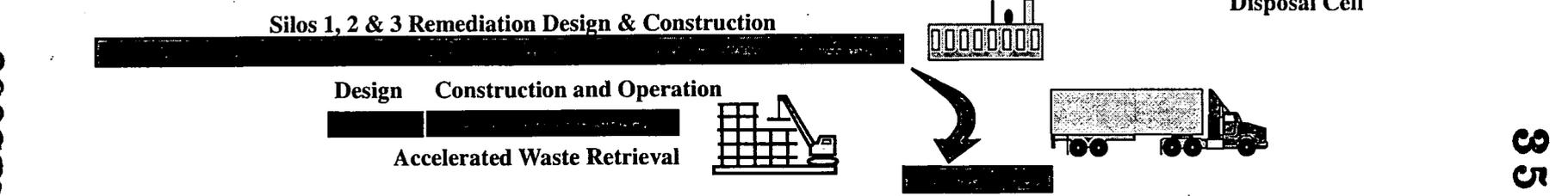
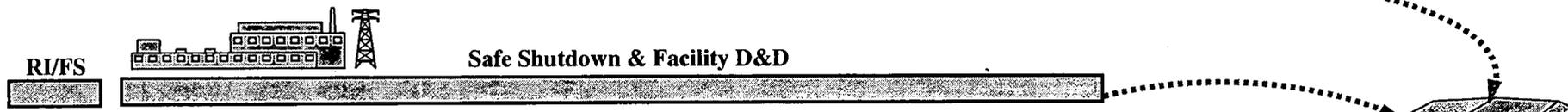
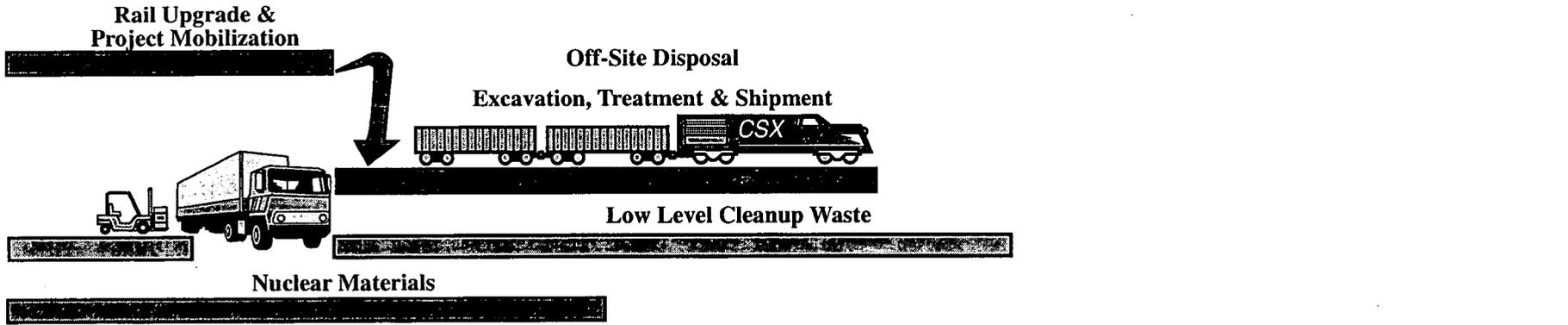


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Prioritization Scenario 5

- Contractor Financed D&D
- Shutdown Soil Excavation 3 Years

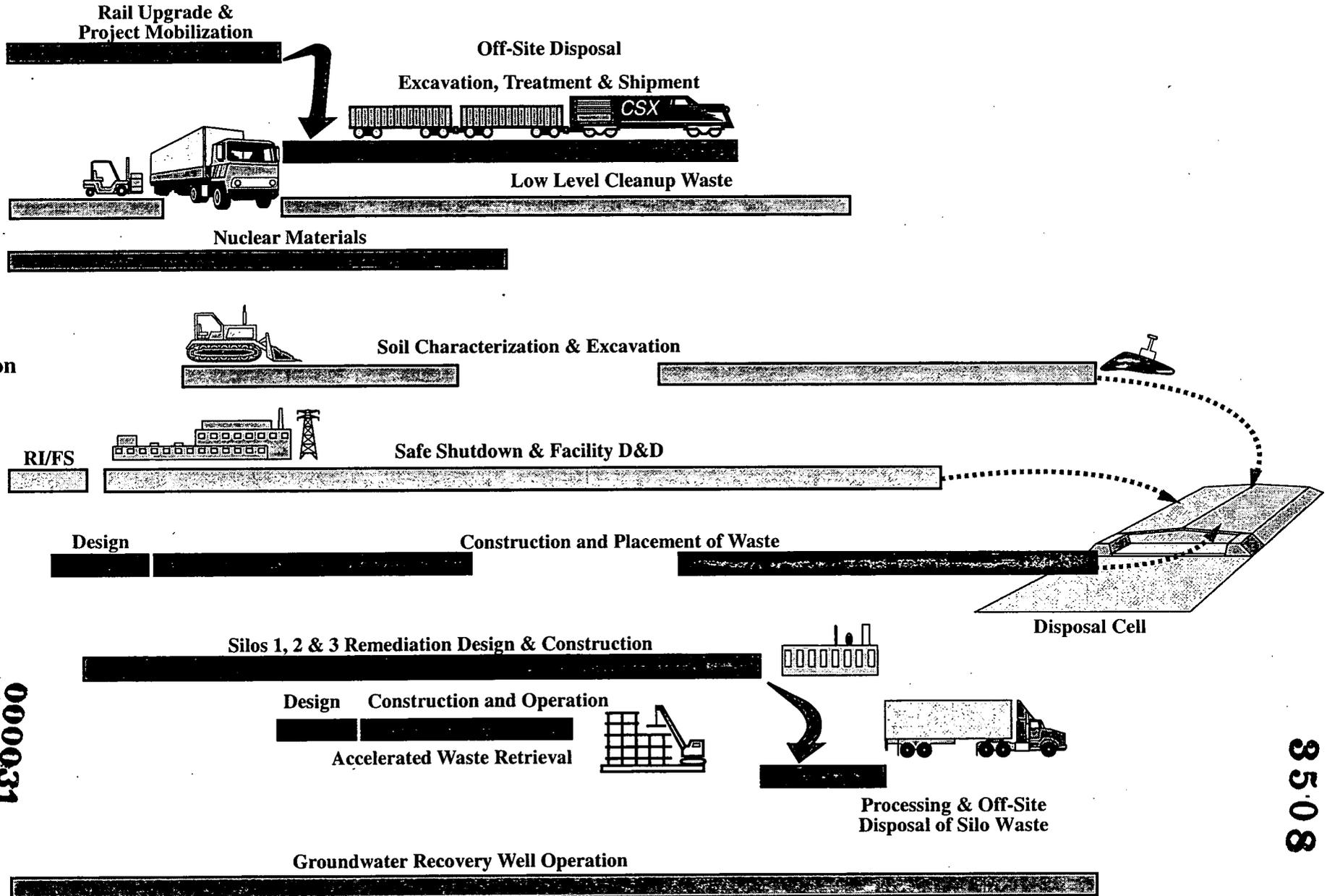


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Prioritization Scenario 6

- Contractor Financed D&D
- Shutdown Soil Excavation
- 2 years



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