

From: drew.grainger [REDACTED]
Sent: Thursday, February 14, 2008 7:36 AM
To: Dimarzio, John A.; Groome, Chadi D.
Subject: Fw: PDCF and WSB Data

Attachments: PDCF NEPA Impact Tables CDS.doc; WSB NEPA Baseline CDS 3.doc; WSB NEPA Impact Tables CDS .doc

PDCF and WSB data.

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----- Forwarded by Drew Grainger [REDACTED] on 02/14/2008 07:33 AM -----

Sachiko Mcalhany/NNSA/DOE/Srs

To Drew Grainger [REDACTED]

cc Hitesh.NIGAM [REDACTED]

02/13/2008 04:17 PM

Subject PDCF and WSB Data

Attached is the WSB and PDCF data that I spoke about this morning. Please forward to SAIC and anyone else who needs it.

Thanks,
Sachiko

PDCF Information Request

Information Requested (Note: Original NEPA analysis is documented in DOE/EIS-0283-SA-1 and MOX FFF EIS, NUREG-1767)	PDCF		
	Update to Baseline Scope in Current NEPA Analysis (using B-PDCF-1-02-033 as baseline)	Up to 9MT of Additional Future Surplus Material	SPD EIS Data (1999)
General			
Schedule - Design - Construction or Modification - Operation - Deactivation and decommissioning	Design 3Q 1999 – 4Q 2009 Construction 1Q 2011 – 4Q 2016 Operations 2Q 2019 – 2030 D&D NA	No changes to design or construction. Schedules for operation and D&D would require extension.	Construction start 2001, operations start 2004 (10-year operation); (SPD EIS, 2-51)
	Congressional Data Sheets FY 2008		

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Description of modifications to facility including: <ul style="list-style-type: none"> - Latitude and Longitude - Elevation above NGVD (units) - Floor space used (units) - Plot plan - Floor plan with equipment arrangement - Features that prevent unauthorized entry (unclassified description) - Features that ensure safeguards against malevolent acts or material diversion by internal and external entities (unclassified description) - Fire protection systems - Features that control releases of airborne contaminants (include diagram of treatment train) - Features that control releases of waterborne contaminants (include diagram of treatment train) - Features/procedures that prevent criticality - Description of liquid and non-liquid waste processing 	Recent design changes: <ul style="list-style-type: none"> -SRL furnace elimination -SRL gas extraction removed -Sanitization; microwave technology to replace furnaces. Not baseline change yet but appears to have verbal agreement. -Fire protection – added sprinklers to non-inerted gloveboxes -Hydride; Moved HEPA filters from across room to next to glovebox. Smaller volume of ductwork impacted -Hydride; replaced hydrogen getter beds with hydrogen generator -Hydride; added HEPA filter between hydride heat exchanger and vacuum pump. This allowed enclosure to be eliminated -Changed tiles at bottom of sandfilter. -Add staircase to outside of Pu Process Bldg to access liquid waste tanks in basement. -Routed condensate and blowdown from Upper Three Runs to Central Sanitary -No procedures yet for criticality -Added grouting process for floor sweepings in Waste Management area glovebox sweeping and lab concentrated liquids 	No changes to the General Arrangement to accommodate 9 MT. Facility is designed for 20 year life so 9MT should stay in this envelope.	Process building - 200,000 square feet (SPD EIS; 2-51) Utilities - 26,000 square feet (SPD EIS; 2-51) Hardened Facility (SPD EIS; 2-15) Removal of gallium (SPD EIS; 2-14) Hydride-oxidation (SPD EIS; 2-18)

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Construction/modification			
Land disturbed for laydown (acres or hectares)	No changes	No changes	5 acres
Description of activities conducted (e.g., decontamination/removal/disposal of existing facilities/equipment, land clearing, onsite concrete plant) and modifications needed (e.g., floors, walls, support beams, roof, waste management, ventilation, new roads)	No changes	No changes	See SPD EIS pages 2-14 to 2-21
Describe type and quantity of air pollutant emitting equipment and frequency and duration of use.	No changes	No changes	See SPD EIS 4.4
Describe type and quantity of noise producing equipment and frequency and duration of use.	No changes	No changes	See SPD EIS 4.4
Emission release parameters – For any stack releases - release location (latitude & longitude), stack height, stack diameter, stack exhaust velocity or flow rate, exhaust air temperature – For fugitive releases - release location and dimensions of source area	No changes	No changes	See SPD EIS 4.4
Air emissions (point source and fugitive): - Criteria Pollutants (metric tons/yr) - HAPs (kilograms/yr) - Radioisotopes (curies/yr)	No changes	No changes	See SPD EIS Table G-57 through G-58

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Liquid effluents - Location(s) of discharge(s) and copies of permit(s) - Rate(s) of discharge(s) (units/day) - Concentrations of contaminants (picocuries/liter or micrograms/liter)	No changes	No changes	The only liquid waste estimate made in SPD EIS was for non-hazardous liquid, see page F-17. See SPD EIS Table H-27 for non-hazardous liquid waste estimate.
Employment for each year (FTEs)	No change	No change	See SPD EIS Table E-4
Shifts	No data	No change	No data
Worker radiological exposure - total dose (person-rem)	No changes	No change	See SPD EIS Section 4.4.1.4
Number of exposed workers	Not calculated	Same as base case	See SPD EIS Section 4.4.1.4
Waste generated (provide solid and liquid separately) (units/yr): - TRU - LLW - MLLW - Hazardous - Non-Hazardous	No changes	No changes in annual quantities	See SPD EIS Table H-27

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Operations			
Description of Process including: - Flowchart - Throughput (units/yr)	No changes in thruput Continual changes to process flow diagrams and P&IDs	No changes	See SPD EIS Sections 2.4.1.1, 2.4.1.2 and Figures 2.8, 2.9
Emission release parameters - For stack releases - release location (latitude & longitude), stack height, stack diameter, stack exhaust velocity or flow rate, exhaust air temperature - For fugitive releases - release location and dimensions (including height) of vents or louvers from which release would occur - Emissions from emergency generators, boilers, and other ancillary equipment	Stack height is under review, potential change No changes to fugitive emissions No changes from generators	No changes	See SPD EIS 4.4
Air emissions - Criteria Pollutants (metric tons/yr) - HAPs (kilograms/yr) - Radioisotopes (curies/yr)	Grouting concentrated liquids from analytical lab so reduced nitrogen oxides and sulfur oxides	No changes	See SPD EIS Tables G-59 through G-60
Liquid effluents - Location(s) of outfall(s) - Rate(s) of discharge(s) (units/day) - Concentrations of contaminants (picocuries/liter or micrograms/liter)	Condensate/blowdown new discharge point No changes in volumes	No changes	The only liquid waste estimate made in SPD EIS was for non-hazardous liquid, see page F-17. See SPD EIS Table H-28 for non-hazardous liquid waste estimate.
Employment (FTEs)	Peak of 550 FTEs in first full year of operation. Just under 500 FTEs for remaining years.	No changes	See SPD EIS Table E-6

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Shifts	24/7 for 200 days per year; remainder for inventory, maintenance, holidays	No changes	Not provided
Employee radiological exposure - total dose (person-rem)	No change in previous calculation.	No changes	See SPD EIS Section 4.4.2.4
Number of exposed workers	Not calculated	Same as base case	See SPD EIS Section 4.4.2.4
Utilities needed - Potable water (units/yr) - Non-potable water (units/yr) - Electricity (kw/hr) - Natural gas (units/yr) - Coal (units/yr) - Gasoline (units/yr) - Diesel Fuel (transportation) (units/yr) - Heating fuel oil (units/yr)	No changes	No changes	See SPD EIS Table E-7
Resources needed - Metals (units/yr) - Chemicals (units/yr) - Gases (units/yr) - other materials (units/yr)	Small cylinder of sulfur dioxide added to lab for calibrations – not part of baseline yet	No changes	See SPD EIS Table E-7
Waste generated (solid or liquid) (units/yr): - TRU - Mixed TRU - LLW - MLLW - Hazardous - Non-Hazardous	No changes	Annual volumes stay the same	See SPD EIS Table H-28
Please provide any safety documentation (e.g., safety assessments, safety analysis reports) for this facility.	See Rev B – Internal Draft	None developed	See SPD EIS Appendix K

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List any accident scenarios (in existing safety or NEPA documents) that need to be modified because of changes produced by the proposed action. For any new or modified scenarios provide the information listed below:	No changes	No changes	Does not apply
Radiological accidents - Accident description (include release pathways and mitigating factors) - Accident frequency - Material at risk - Material characteristics - Source term released to environment (curies by isotope) - Release parameters: release fractions, release timing, location, release height, release duration, and heat of release - Filtration (specify efficiency) - Number of involved workers	Does not apply	Does not apply	Does not apply

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Chemical inventory for chemical accident analysis - List chemicals, total facility inventory, and annual usage of the chemical - Size and location of largest tank (storage container) for each chemical. Include floor area or diked area that would contain the spill when applicable. - Concentration of chemical in largest tank (identify if this is the highest concentration of the chemical being stored). If not, also list the other storage locations, size of tank and concentration of chemical being stored.	Does not apply	Does not apply	Does not apply
Design basis earthquake frequency and intensity	No changes	No changes	See SPD EIS Appendix K
Earthquake frequency that would result in loss of structural integrity	No changes	No changes	See SPD EIS Appendix K
Other natural phenomena that would result in loss of structural integrity and their frequency	No changes	No changes	See SPD EIS Appendix K
Aircraft crash frequency	No changes	No changes	See SPD EIS Appendix K