

EM Performance Report - Summary

(End of Oct 31 FY2011)

| <u>EM Site Cleanup- Major Areas</u> | <u>End State % Complete</u> | | | <u>End State Quantity</u> | <u>Unit of Measure</u> |
|--|-----------------------------|-------------|-----------------|-------------------------------|----------------------------|
| | <u>FY 09</u> | <u>FY10</u> | <u>FY11 YTD</u> | | |
| Nuclear Materials | | | | | |
| Disposition Plutonium | | | | | |
| Current Path - Dissolved in H- Area (approx 25% of Pu) | 4% | 31% | 33% | 242 | Containers |
| Potential Paths - Under Evaluation (approx 75% of Pu) | 0% | 0% | 0% | TBD | TBD |
| Enriched Uranium Disposition | | | | | |
| LEU* Shipped to TVA from Unirradiated HEU | 0% | 0% | 96% | 333 | Trailers |
| LEU* Shipped to TVA from Used Nuclear Fuel | 0% | 0% | 10800% | 108 | Trailers |
| Liquid Waste | | | | | |
| Disposition Radioactive Liquid Waste | | | | | |
| Produce Canisters | 39% | 40% | 40% | 7,557 | Canisters |
| Process Salt Solution | 2% | 4% | 4% | 111,700 | k Gallons |
| Close Tanks | | | | | |
| Old Style | 8% | 8% | 8% | 24 | Tanks |
| Newer Style | 0% | 0% | 0% | 27 | Tanks |
| Solid Waste | | | | | |
| Disposition Radioactive Solid Waste | | | | | |
| Transuranic (TRU) Waste Shipped | 39% | 43% | 44% | 15,658 | Cubic Meters |
| Mixed Low-Level & Low-Level Waste Dispositioned** | 77% | 83% | 84% | 137,579 | Cubic Meters |
| Soil & Ground Water | | | | | |
| Complete Remediation of Waste Sites | 71% | 72% | 73% | 515 | Release Sites |
| Facilities | | | | | |
| Facilities D&D'd | 25% | 26% | 26% | 990 | Major Facilities |
| Footprint Reduction (ARRA Target) | 0% | 48% | 49% | 233 | Square Miles |

* Note: LEU is the result of blending HEU with natural Uranium

** Incudes both Legacy and Newly Generated Waste; Legacy is 100% Complete

FY 2011 EM Performance Metrics Report through November 30

| <u>Nuclear Materials</u> <i>Measure</i> | Unit of Measure | Cum Actuals thru FY 2010 | FY 2011 Analysis | | End State Analysis | | | | |
|--|-----------------|--------------------------|------------------|---------------|--------------------------|-----------|------------|-------------------------|--|
| | | | Actuals FY2011 | Annual Target | Cum Act thru 2011 (FYTD) | End State | % Complete | Target Year to Complete | |
| Plutonium Disposition | | | | | 11/30/10 | | | | |
| Current Disposition Path¹ | | | | | | | | | |
| Plutonium Dissolved in H-Area | Containers | 74 | 7 | 92 | 81 | 242 | 33% | 2012 | |
| | | | | | See Note 3 | | | | |
| Potential Disposition Paths² | | | | | | | | | |
| WIPP, MOX, Vitrification, Add'l H-Area | Containers | 0 | 0 | 0 | 0 | 725 | 0% | 2019 | |
| Enriched Uranium Disposition | | | | | | | | | |
| LEU Shipped to TVA Vendor (from unirradiated HEU) | Trailers | 321 | 2 | 12 | 323 | 333 | 96% | 2011 | |
| LEU Shipped to TVA Vendor (from Used Nuclear Fuel) | Trailers | 0 | 0 | 4 | 0 | 108 | 0% | 2019 | |
| | | | | See Note 4 | | | | | |
| Total LEU Shipped to TVA Vendor (Note: LEU = HEU blended with NU) | Trailers | 321 | 2 | 16 | 323 | 441 | 73% | 2019 | |
| | | | | See Note 4 | | | | | |
| Used Nuclear Fuel (UNF) Dissolved (To begin in 2Q FY 2011) | Bundles | 0 | 0 | 52 | 0 | 3268 | 0% | 2019 | |
| | | | | See Note 4 | | | | | |

Nuclear Materials Notes:

1. Quantities Since 2008, End State Quantity is Pre- Decisional (Includes LAP & EU/Pu Containers)
2. DOE-SR is in the process of evaluating other Plutonium disposition paths including:
 - Shipping to WIPP
 - Vitrification
 - MOX
 - Additional H- Area Processing
3. Start-up of HB-Line South will double through-put capacity of plutonium disposition
4. Dependent on receiving approval of the Amended ROD and SA in 2nd Qtr FY11

On / Ahead of Schedule

Behind Schedule

End State Basis

Nuclear Materials End State Quantities and Target Year to Complete are based on 2008 Certified Life Cycle Plan

Definitions

LEU Low Enriched Uranium
 HEU Highly Enriched Uranium
 NU Natural Uranium
 FRR Foreign Research Reactor
 DRR DomesticForeign Reactor
 UNF Used Nuclear Fuel
 (from FRR's & DRR's)
 LAP Low Activity Plutonium
 EU/Pu Uranium and Plutonium metals

EM Performance Metrics Report through October 2011

| <u>Liquid Waste</u> <i>Measure</i> | Unit of Measure | Cum Actuals thru FY 2010 | FY 2011 Analysis | | End State Analysis | | | | |
|---|-----------------|--------------------------|------------------|----------------------|--------------------------|-----------|------------|----------------------|-----------------------------------|
| | | | Actuals FYTD | Accel. Annual Target | Cum Act thru 2011 (FYTD) | End State | % Complete | Forecast to Complete | Regulatory Commitment to Complete |
| | | | 10/31/10 | | | | | | |
| DWPF Canisters Poured & Tested | | | | | | | | | |
| Canisters Produced ^{1, 2} | Canisters | 2,986 | 28 | 311 | 3,014 | 7,557 | 40% | 2024 | 2028 |
| Old-style Tank Preparation and Closure | | | | | | | | | |
| Bulk Waste Removal Complete | Tanks | 9 | 0 | 1 | 9 | 24 | 38% | 2017 | 2020 |
| Heel Removal Campaign Complete | Tanks | 6 | 0 | 0 | 6 | 24 | 25% | 2018 | |
| Annuli Prepared for Closure ³ | Tanks | 2 | 0 | 2 | 2 | 16 | 13% | 2017 | |
| Tanks Isolated | Tanks | 2 | 0 | 2 | 2 | 24 | 8% | 2018 | |
| Operationally Closed | Tanks | 2 | 0 | 0 | 2 | 24 | 8% | 2018 | 2022 |
| SPF Salt Solution Processed | | | | | | | | | |
| Salt Solution Processed | k Gallons | 3,972 | 0 | 800 | 3,972 | 111,700 | 4% | 2025 | |
| Radioactivity | | | | | | | | | |
| Curies Stabilized in Canisters ⁴ | k Curies | 31,444 | 1,092 | 12,130 | 32,536 | 385,000 | 8% | 2024 | 2028 |

Liquid Waste Notes:

1. GWSB # 3 Contingency Capacity - TBD
2. Canister Storage Space Available: 1576
3. 16 of 24 Tanks Require Annuli Preparation
4. Estimate based on Sludge Batch Sampling

On / Ahead of Schedule
 Behind Schedule

| |
|--|
| <p><u>End State Basis</u> End State Quantities based on DRAFT Rev 16 System Plan</p> <p><u>Commitment to Complete</u> Based on FFA and Site Treatment Plan</p> |
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On / Ahead of Schedule for Regulatory Commitment
 Behind Schedule for Regulatory Commitment

EM Performance Metrics Report through October 2011

From DRAFT Rev 16 System Plan and / or FY11 PEMP

Dates revised per DRAFT Rev 16 System Plan

Column added to indicate Regulatory Commitments

| <u>Liquid Waste</u> | Unit of Measure | Cum Actuals thru FY 2010 |
|---|-----------------|--------------------------|
| <i>Measure</i> | | |
| DWPF Canisters Poured & Tested | | |
| Canisters Produced ^{1,2} | Canisters | 2,986 |
| Old-style Tank Preparation and Closure | | |
| Bulk Waste Removal Complete | Tanks | 9 |
| Heel Removal Campaign Complete | Tanks | 6 |
| Annuli Prepared for Closure ³ | Tanks | 2 |
| Tanks Isolated | Tanks | 2 |
| Operationally Closed | Tanks | 2 |
| SPF Salt Solution Processed | | |
| Salt Solution Processed | k Gallons | 3,972 |
| Radioactivity | | |
| Curies Stabilized in Canisters ⁴ | k Curies | 31,444 |

| FY 2011 Analysis | |
|------------------|----------------------|
| Actuals FYTD | Accel. Annual Target |
| 10/31/10 | |
| 28 | 311 |
| 0 | 1 |
| 0 | 0 |
| 0 | 2 |
| 0 | 2 |
| 0 | 0 |
| 0 | 800 |
| 1,092 | 12,130 |

| End State Analysis | | | | |
|--------------------------|-----------|------------|----------------------|-----------------------------------|
| Cum Act thru 2011 (FYTD) | End State | % Complete | Forecast to Complete | Regulatory Commitment to Complete |
| | | | | |
| 3,014 | 7,557 | 40% | 2024 | 2028 |
| 9 | 24 | 38% | 2017 | 2020 |
| 6 | 24 | 25% | 2018 | |
| 2 | 16 | 13% | 2017 | |
| 2 | 24 | 8% | 2018 | |
| 2 | 24 | 8% | 2018 | 2022 |
| 3,972 | 111,700 | 4% | 2025 | |
| 32,536 | 385,000 | 8% | 2024 | 2028 |

Liquid Waste Notes:

1. GWSB # 3 Contingency Capacity - TBD
2. Canister Storage Space Available: 1576
3. 16 of 24 Tanks Require Annuli Preparation
4. Estimate based on Sludge Batch Sampling

New DRAFT Rev 16 End State Projection

New DRAFT Rev 16 End State Projection

End State Basis
End State Quantities based on DRAFT Rev 16 System Plan

Commitment to Complete
Based on FFA and Site Treatment Plan

On / Ahead of Schedule for Regulatory Commitment

Behind Schedule for Regulatory Commitment

FY 2011 EM Performance Metrics Report through October 31

| <u>Solid Waste</u> | Unit of Measure | Cum Actuals thru FY 2010 | FY 2011 Analysis | | End State Analysis | | | |
|--------------------------------------|-----------------|--------------------------|------------------|---------------|--------------------------|---------------|------------|-------------------------|
| <i>Measure</i> | | | Actuals FY2011 | Annual Target | Cum Act thru 2011 (FYTD) | End State | % Complete | Target Year to Complete |
| TRU, MLLW & LLW | | | 10/31/10 | | | | | |
| RH-TRU Waste Shipped for Disposal | | 17 | 3 | 6 | 20 | 68 | | |
| CH-TRU Waste Shipped for Disposal | | <u>6,749</u> | <u>44</u> | <u>1,122</u> | <u>6,793</u> | <u>15,590</u> | | |
| Total Transuranic Waste Shipped | Cubic Meters | 6,766 | 47 | 1,128 | 6,813 | 15,658 | 44% | 2038 |
| LL & MLL Waste Disposed ¹ | Cubic Meters | 114,558 | 1,371 | 7,938 | 115,929 | 137,579 | 84% | 2038 |

Solid Waste Notes:

1. LL = Low Level
MLL = Mixed Low Level
2. Legacy MLL & LL Waste disposition complete;
Newly Generated LL Waste disposition is ongoing with a target of not exceeding accumulation on site of 400 cubic meters at any time

On / Ahead of Schedule

Behind Schedule

End State Basis
Solid Waste End State Quantities and Target Year to Complete are based on 2008 Certified Life Cycle Plan

FY 2011 EM Performance Metrics Report through October 31

| <u>Area Completion</u> | Unit of Measure | Cum Actuals thru FY 2010 | FY 2011 Analysis | | End State Analysis | | | |
|--|------------------|--------------------------|------------------|---------------|--------------------------|-----------|------------|-------------------------|
| <i>Measure</i> | | | Actuals FY2011 | Annual Target | Cum Act thru 2011 (FYTD) | End State | % Complete | Target Year to Complete |
| Remediations & Facilities D&D'd | | | 10/31/10 | | | | | |
| Remediations Completed | Release Sites | 373 | 1 | 7 | 374 | 515 | 73% | 2038 |
| Facilities -Decommission & Demolition | | | | | | | | |
| Industrial Facilities- Major ¹ | | 240 | 0 | 6 | 240 | 759 | | |
| Nuclear Facilities | | 11 | 0 | 0 | 11 | 191 | | |
| Radioactive Facilites | | 7 | 0 | 16 | 7 | 40 | | |
| Total Facilities D&D'd | Major Facilities | 258 | 0 | 22 | 258 | 990 | 26% | 2032 |

Notes

1. Excludes smaller ancillary buildings

On / Ahead of Schedule

Behind Schedule

End State Basis

Area Completion End State Quantities and Target Year to Complete are based on 2008 Certified Life Cycle Plan

FY 2011 EM Performance Metrics Report through October 31

| <u>Recovery Act (2009 - 2012)</u> | Unit of Measure | Cum Actuals thru FY 2010 | FY 2011 Analysis | | End State Analysis | | | |
|---|-----------------|--------------------------|------------------|---------------|--------------------------|----------------|------------|-------------------------|
| <i>Measure</i> | | | Actuals FY2011 | Annual Target | Cum Act thru 2011 (FYTD) | End State | % Complete | Target Year to Complete |
| Funding Spent | | | | | | | | |
| SRNS | | 726,664 | 52,422 | | 779,086 | 1,415,400 | 55% | 2013 |
| SRR | | <u>90,900</u> | | | <u>90,900</u> | <u>200,000</u> | 45% | 2011 |
| Total | \$ (000) | 817,564 | 52,422 | 0 | 869,986 | 1,615,400 | 54% | 2013 |
| Solid Waste Disposition | | | | | | | | |
| RH-TRU Waste Shipped for Disposal | | 17 | 3 | 6 | 20 | 39 | 51% | |
| CH-TRU Waste Shipped for Disposal | | 865 | 44 | 1,122 | 909 | 4,961 | 18% | |
| Total Transuranic Waste Shipped | Cubic Meters | 882 | 47 | 1128 | 929 | 5,000 | 19% | 2013 |
| PAD 1 - % TRU Waste Removed | % | 82% | 0% | 18% | 0% | 100% | 0% | 2011 |
| PAD 1 - % TRU Waste Disposed | % | 0% | 0% | 0% | 0% | 90% | 0% | 2013 |
| Mixed Low Level Waste Disposed ¹ | | 393 | 0 | 352 | 393 | 755 | 52% | |
| Low Level Waste Disposed ¹ | | <u>10,993</u> | <u>1,371</u> | <u>7,586</u> | <u>12,364</u> | <u>17,231</u> | 72% | |
| Total MLLW / LLW | Cubic Meters | 11,386 | 1,371 | 7,938 | 12,757 | 17,986 | 71% | 2011 |
| Maintain Newly Generated Low Level Waste Below Target Level | Cubic Meters | Met | Met | < 400 | Met | < 400 | NA | |
| Nuclear Material Disposition | | | | | | | | |
| Depleted Uranium Oxide Shipped | Drums | 6214 | 0 | 9,391 | 6,214 | 15,603 | 40% | 2011 |

Recovery Act Notes:

- Legacy Waste disposition complete; Newly Generated Waste disposition is Ongoing

■ On / Ahead of Schedule

■ Behind Schedule

ARRA End State Basis

Recovery Act End State Quantities and Target Year to Complete are based on ARRA Certified Baseline

FY 2011 EM Performance Metrics Report through October 31

| <u>Recovery Act (2009 - 2012)</u> | Unit of Measure | Cum Actuals thru FY 2010 | FY 2011 Analysis | | End State Analysis | | | |
|---|-----------------|--------------------------|------------------|---------------|--------------------------|-----------|------------|-------------------------|
| <i>Measure</i> | | | Actuals FY2011 | Annual Target | Cum Act thru 2011 (FYTD) | End State | % Complete | Target Year to Complete |
| Soil & Water Remediation | | | 10/31/10 | | | | | |
| Characterized for Remediation | Waste Sites | 17 | 0 | 6 | 17 | 23 | 74% | 2011 |
| Remediation Systems Installed | Systems | 7 | 0 | 5 | 7 | 12 | 58% | 2011 |
| Remediations Completed | Release Sites | 7 | 1 | 7 | 8 | 14 | 57% | 2011 |
| Ground Water Plumes Remediated | # of Plumes | 3 | 1 | 4 | 4 | 7 | 57% | 2011 |
| Facility Decommission & Demolition | | | | | | | | |
| Industrial Facilities- Major | | 4 | 0 | 6 | 4 | 10 | | |
| Industrial Facilities- Ancillary | | 4 | 0 | 0 | 4 | 4 | | |
| Total Industrial Facilities | | 8 | 0 | 6 | 8 | 14 | 57% | 2011 |
| Radioactive Facilities | | 0 | | 16 | 0 | 16 | 0% | 2011 |
| Total Facilities D&D'd | Facilities | 8 | 0 | 22 | 8 | 30 | 27% | 2011 |
| Reactors Decommissioned | # Completed | 0 | 0 | 1 | 0 | 3 | 0% | 2012 |
| Operational Footprint Reduction (75%) | | | | | | | | |
| Site Remediated/ Footprint Reduction | Square Miles | 113 | 2 | 104 | 115 | 233 | 49% | 2012 |

1. Hector to be decommissioned in 2011
P & R to be decommissioned in 2012

 On / Ahead of Schedule

 Behind Schedule

ARRA End State Basis
Recovery Act End State Quantities and Target Year to Complete are based on ARRA Certified Baseline