Title: 238Pu Operations Monthly Report, August 2009

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Intended for: DOE, NE-34
1. Program Summary
Capability maintenance activities were performed throughout the month and work continued to accelerate in two other areas: (1) preparation to resume Isotope Fuels Impact Test (IFIT) facility operations; and 2) relocation of analytical chemistry capabilities from the CMR building to PF-4. At the close of the month, program spending was approximately $2,400K less than budgeted, and the schedule variance (SV, or the difference between work scheduled and earned value of work performed) had increased to - $5,772K.

2. Current Issues
• Pu 238 Operations Program (WBS No. D2.01.05.D0.01)
The program’s large schedule variance is a reflection of significant delays (approximately 5 months) in four of the Program’s five WBS elements. The sole exception was Capability Maintenance which was on-schedule as of 31 August.
  - Capability Maintenance (WBS No. D2.01.05.D0.01.01)
    No issues.
  - Production (WBS No. D2.01.05.D0.01.02)
    o Difficulties in achieving/maintaining an acceptable atmosphere in fuel-processing gloveboxes result in unacceptable fuel/pellet neutron emission rates.
      Corrective Action(s):
      • Operating personnel continued to investigate the procurement of NDA test equipment to identify the source of glovebox leaks.
      • Facility System Engineers were assigned to investigate near-term changes in glovebox operating conditions that would reduce air infiltration.
    o The resumption of IFIT operations was delayed by delays in obtaining NNSA approval for a plan of action (POA) defining the scope of the proposed readiness assessment (RA).
      Corrective Action(s):
      • A POA was developed and distributed for comment in late August. A final version of the POA will be submitted to NNSA for approval by 4 September.
    o On 29 June a new facility requirement was imposed by NNSA to require repackaging of 60 Russian Product Containers currently in storage in the PF-4 vault by the close of FY2009.
      Corrective Action(s):
      • Personnel resources that were originally committed to the +3/+4 Fabrication Studies detailed in the “Project Management Plan for Pu 238 Operations” (rev. 5.1, 3/27/09) were reassigned to support the repackaging effort. Repackaging activities were initiated after completion of an Independent Verification Review (IVR) of the repackaging operation.
- **Process Equipment Upgrades (WBS No. D2.01.05.D0.01.03)**
  - Activities under this WBS element were approximately five months behind schedule as of 31 August.
  
  **Corrective Action(s):**
  - Additional facility engineering resources were assigned to support scheduled equipment upgrades.

- **Analytical Chemistry (WBS No. D2.01.05.D0.01.04)**
  - Activities to support the transfer of DC Arc analysis from the CMR to TA-55 were approximately 6 months behind schedule as of 31 August. However, several items in the installation schedule were inaccurate and did not reflect current project needs.
  
  **Corrective Action(s):**
  - A Baseline Change Request (BCR) for modification of the WBS schedule and tasks to reflect current program and facility requirements was issued on 29 July; after review and approval by LANL program management, the BCR was submitted to NNSA/LASO on 20 August.

- **Infrastructure (WBS No. D2.01.05.D0.01.05)**
  - By the end of August approximately 28% of the total infrastructure budget had been expended to perform approximately 31% of the work scheduled under this WBS element. However, the work completed was approximately 7 months behind schedule.
  
  **Corrective Action(s):**
  - Program personnel will continue to meet with CMR Facility Management to determine why scheduled work has not been performed, whether the work is still expected to be completed in FY2009, and whether funds must be carried over into FY2010 to cover facility costs incurred but not costed in FY2009 (e.g., waste disposition).

### 3. Financial Summary

Program costs through August 2009 are presented in Table 1 and individual WBS summaries are attached.

<table>
<thead>
<tr>
<th>WBS No.</th>
<th>WBS Title</th>
<th>Prior Year Carryover</th>
<th>Allotment to Date</th>
<th>Total Available Funding</th>
<th>Costs This Month</th>
<th>YTD Cost</th>
<th>Uncosted To Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2.01.05.D0.01.01</td>
<td>Capability Maintenance</td>
<td>0</td>
<td>3,777</td>
<td>3,777</td>
<td>646</td>
<td>3,465</td>
<td>308</td>
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<td>D2.01.05.D0.01.02</td>
<td>Production</td>
<td>0</td>
<td>3,039</td>
<td>3,039</td>
<td>224</td>
<td>2,895</td>
<td>408</td>
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<tr>
<td>D2.01.05.D0.01.03</td>
<td>Process Equipment Upgrades</td>
<td>0</td>
<td>1,458</td>
<td>1,458</td>
<td>65</td>
<td>2,265</td>
<td>-797</td>
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<tr>
<td>D2.01.05.D0.01.04</td>
<td>Analytical Chemistry</td>
<td>0</td>
<td>4,385</td>
<td>4,385</td>
<td>146</td>
<td>947</td>
<td>3,438</td>
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<tr>
<td>D2.01.05.D0.01.05</td>
<td>Infrastructure</td>
<td>0</td>
<td>1,826</td>
<td>1,826</td>
<td>52</td>
<td>517</td>
<td>1,309</td>
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<tr>
<td>D2.01.05.D0.01.01</td>
<td>Pu238 Operations</td>
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<td>14,749</td>
<td>14,749</td>
<td>1,133</td>
<td>10,083</td>
<td>4,666</td>
</tr>
</tbody>
</table>
4. Program Management

Version 5.1 of the FY2009 Project Management Plan (PMP) was approved on 27 March. As of 31 August there was one pending BCR (M09-061).