Saltstone Operations
Presented to the
SRS Citizens Advisory Board
Waste Management Committee

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Waste Treatment Manager
10/19/10
Outline

• Liquid Waste Flowsheet
• Operating History
• Process Overview
• Future Operations
• Recent Processing History
• FY11 Activities
Saltstone Processing

Fiscal Year


Gallons from Tank 50

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Radioactive startup authorized in 1990; Original source term 0.00006 Ci Cs-137/gal.

Facility Shutdown as no feed available from 1998 to 2002

Waste Determination Permit Approval

Flushing Modifications Oct 2007

July 2010 Source Term 0.04 Ci Cs-137/gal

Maximum Source Term 0.13 Ci Cs-137/gal. in Jan 2008

0.2 Ci Modifications Oct 2006

Permit Approval
Saltstone has begun the facility transformation that will enable the continued fulfillment of all mission requirements.
• Saltstone Production has fulfilled all Liquid Waste Mission requirements.
• Saltstone Production for the last 16 months has matched or exceeded historical performance.
• Waste processing has been intermittent due to both planned outages to install equipment upgrades and unplanned outages due to process pluggages.
• 0.2 Ci Modifications constrained operating margins to meet ALARA objectives.
• Future feed streams enable installation of alternate equipment designs.
FY11 Activities

- Enhancements to meet the needs of salt processing capacity with supplemental salt processing initiatives deployed
- Equipment Upgrades
  - Dry Feed Control System
  - Salt feed pump
  - Hopper redesign
  - Air compressors
  - Grout mixture optimization
- Support 24/7 operations

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FY11 Activities

We do the right thing.

- Planned improvements have been systematically reviewed and prioritized to achieve greatest increase in operating margin and reliability.
- Work scopes will be “outage ready” by the end of FY11 with installation in FY12.
- FY11 Operations will concentrate on refining control parameters using current equipment.
Back Up Information
Recent Performance Analysis

Number of Occurrences

<table>
<thead>
<tr>
<th>Process Shutdown</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Shutdown</td>
<td>37</td>
</tr>
<tr>
<td>Liquid Feed Variance</td>
<td>14</td>
</tr>
<tr>
<td>Dry Feed Variance</td>
<td>6</td>
</tr>
<tr>
<td>Mixer Packing</td>
<td>2</td>
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<td>Foreign Material</td>
<td>1</td>
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<td>Instrumentation Error</td>
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</tbody>
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Process Shutdowns
December 2009 through August 2010

10/19/10