Nuclear Materials Committee Responsibility

• This committee was established to study issues which involve nuclear materials (generally uranium and plutonium) that have an impact on present or future SRS activities, including:
  ▫ Used/Spent nuclear fuel program activities
  ▫ Nuclear materials management
  ▫ Nuclear materials integration
  ▫ Disposition of Pu and other HLW from SRS
## Recommendations and Agency Responses

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pending</td>
<td>The draft recommendation has been approved by the full board and submitted to DOE; however, the response has not been received.</td>
</tr>
<tr>
<td>Open</td>
<td>The recommendation status is changed to “open” once the response has been received. The board may follow up for further information on a response that they find inadequate.</td>
</tr>
<tr>
<td>Closed</td>
<td>The action(s) in the recommendation have been completed, rejected in full by DOE, or overcome by events.</td>
</tr>
</tbody>
</table>
2014 Annual Work Plan Topics

- Nuclear Materials System Plan
- Alternative Dispositions of Nuclear Materials
- Building 235-F Update (Deactivation/cleanup)
- H-Canyon Update (Today and future)
- L-Basin Update (Ins & Outs/Foreign Research Reactor receipts/disposition options – processing or dry storage)
Open Recommendations

- **Open.** Recommendation #307. Transferring Materials in L-Basin to Auxilliary Dry Cask Storage.
- **Open.** Recommendation #313. L-Basin Inventory as Trial Test for a Federal Repository.
- **Open.** Recommendation #314. Planning for Disposition of SRS Canisters.
Recommendation 307: Open

Transferring Materials in L-Basin to Auxiliary Dry- Cask Storage

Background.

▫ Review of 3 recommendations
▫ Review of DOE response
▫ 9/03/13 response. Accepts #1/ SRNS study indicates costs at over a billion $$. OMB study indicated that processing is $500 million cheaper than dry cask storage due to higher number of canisters requiring disposal in federal repository. Will release report when finalized.
▫ Does not accept #2. Need additional research on drying alum cladded fuel.
▫ Does not accept #3. Not beneficial to have NAS evaluation without #2.
Recommendation 313: Open

L-Basin Inventory as Trial Test for a Federal Repository.

**Background.**

**Review of Recommendations**

- **Review of DOE response**
- **12/03/13 response.** “The Department of Energy Savannah River Operations Office cannot accept your recommendation. The Federal Repository is not within the purview of the Office of Environmental Management.”

***Need Clarification***
Recommendation 314: OPEN

• Planning for Disposition of SRS Canisters.
• **Background.**
  ▫ Review Recommendations
  ▫ Review DOE response
  ▫ 11/05/13 response. Focused on consent-based process.
  ▫ Not currently anticipating repository demonstration program.
  ▫ Cans demo of repository performance premature at this time.
DRAFT RECOMMENDATION - Planning for Disposition of SRS Canisters and L-Basin Materials

• See handout for full text.
• Recommendations:
  1. DOE develop a plan for preliminary/pilot testing of used nuclear fuel and high-level radioactive waste as a basis for establishing the variable handling, shipping, and storage requirements for permanently disposing of such materials in a deep geologic repository.
  2. DOE include in the plan’s preliminary/pilot tests the utilization of SRS DWPF canisters and L-Basin materials (both foreign and domestic).
  3. If DOE rejects recommendation #2, above, DOE provide a presentation to the SRS CAB explaining the scientific foundation for the rejection.
Rewrite of #306

DRAFT RECOMMENDATION - Chemical Separation or Partitioning and Transmutation (P/T) of Used Nuclear Fuel And Defense High-Level Radioactive Waste

• See handout for full text.
• Recommendations:
  1. Develop a systemic plan which outlines and prioritizes the development of advanced separation technologies.
  2. Develop a strategy which integrates such advanced technologies with efforts to construct a geologic repository.
  3. Task the SRS SRNL with implementing an investigative program in support of the systemic plan and the integration plan.
  4. Develop a funding approach adequate to the task of supporting the systemic plan, the integrative plan, and the investigative program assigned to the SRS SRNL.
  5. Provide a draft plan and funding approach for public information and input by FY 2016.
Presentation, Tuesday July 22nd:

- Building 235-F Update
  - Vickie Wheeler, DOE-SR