

10th Technical Meeting

Working Group for Sabotage Concerns of Transport and Storage Casks, WGSTSC

15-16 November 2005, Albuquerque, NM

SFR Experiment Nuclear Facility Update

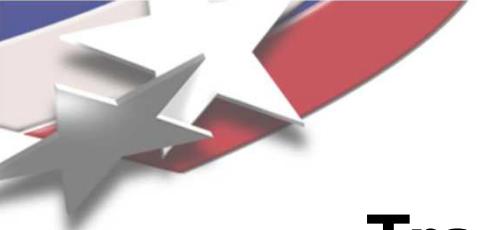
November 15th , 2005

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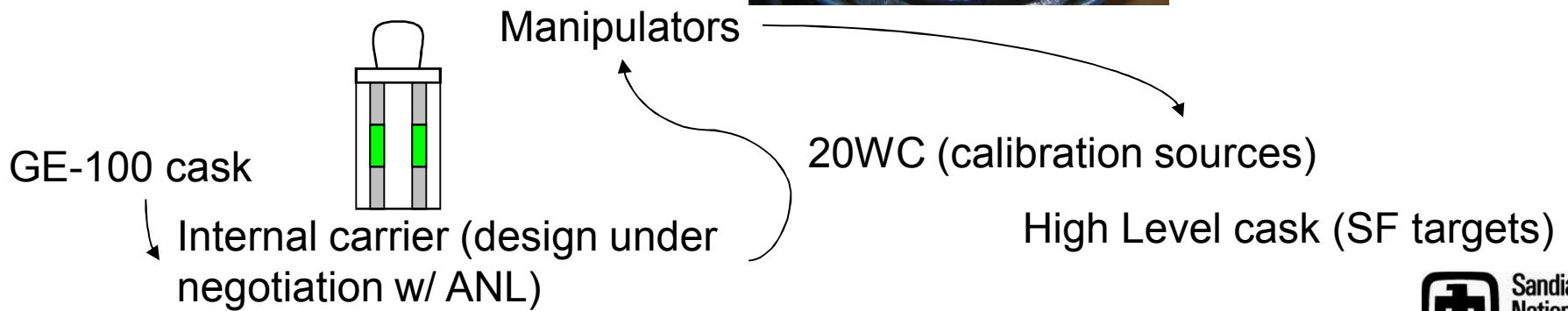
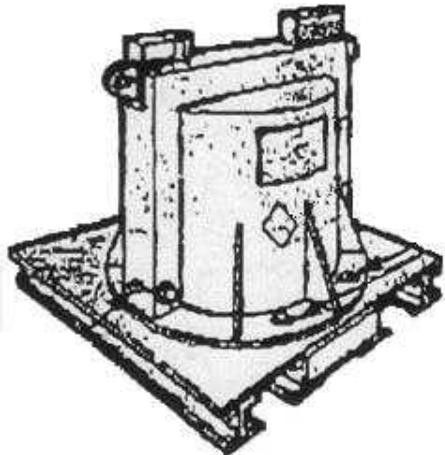


Topics for Discussion

- ANL-SNL Target Carrier
- GE-2000 CoC Update
- Authorization Basis status
- Continued Areas of Concern



Transportation/Receipt of Targets



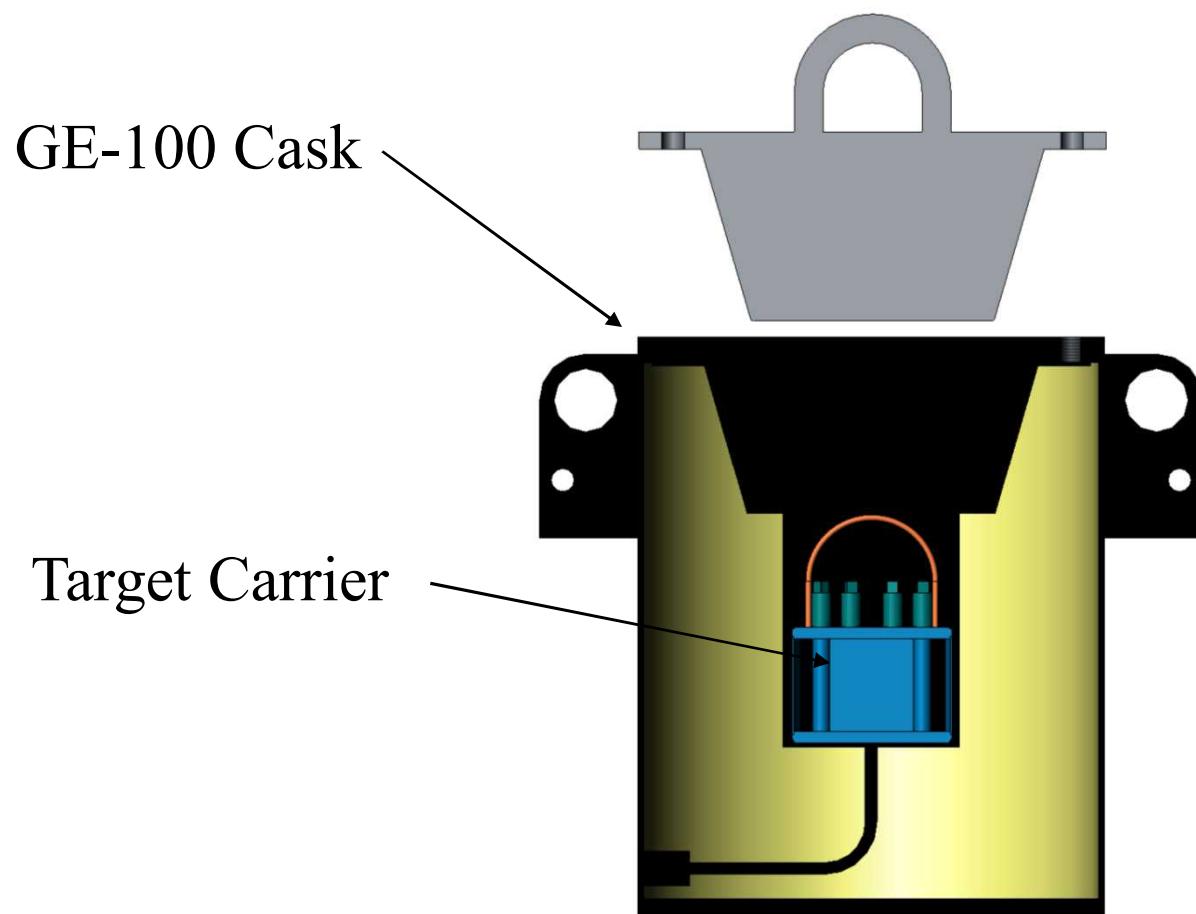


Target Carrier Specifics

- **Readily interface with existing ANL-AGHCF and SNL-GIF**
- **Provide means of shipping all targets and calibration sources, meet all DOT requirements, and safely receive targets in SNL**
- **Ease of use, manipulator friendly**
- **Carrier needs to fit into DOT GE-100 and SNL-High Level cask without modification**
- **Lightweight, but robust**
- **Ship both targets and calibration samples**

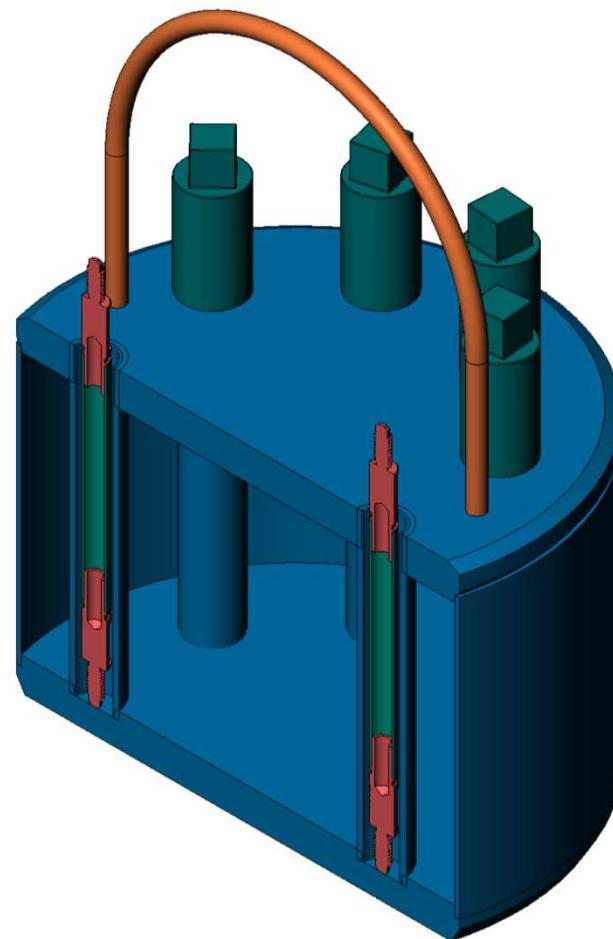
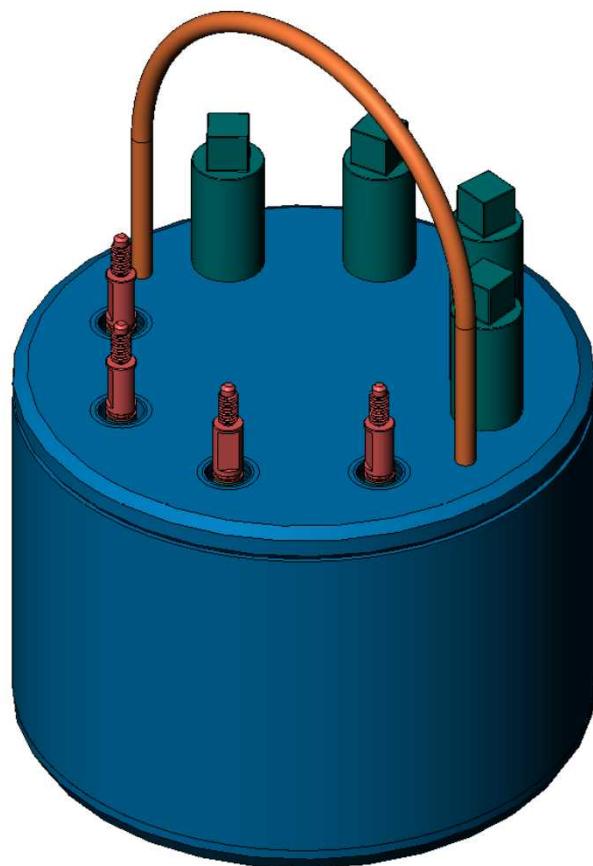


Target Carrier Design, rev. 2





Target Carrier Design, rev. 2





GE-2000 CoC Update Status

- GE-2000 Certificate of Compliance (CoC) update has begun.
 - Currently exceed criteria in Section 2(i) : 242 g U-235 with a maximum burnup of 52 GWd/MTU
- Contract is established between GE and SNL.
- Due to delays in SNL purchasing this work was delayed.
- Work estimated to begin on XXX.
- Work estimated to be completed by YYY.



GIF Authorization Basis

- The GIF DSA is required to undergo a 50% review, followed by the full 100% review.
- The GIF DSA is currently under the 50% review cycle. The SSO 50% review is expected to be completed in mid-December.
- The 50% review consists of chapter 1-4 of the DSA, which contains the vast majority of the information in the DSA.
- Upon completion of the 50% review, agreed upon changes are incorporated for the final 100% review.



GIF Authorization Basis, ctd.

- TA-V's completed DSA with SSO's comments incorporated is expected around 2-16-06.
- The final 100% review then commences according to the following set of entities:
 - 10326 ES&H Safety Basis Review
 - Sandia Legal Review
 - RCSC Review
 - NFSC Review
 - SSO Review



GIF Authorization Basis, cntd.

- Each of these reviewing entities requires some comment resolution process. Since the more in-depth chapters have previously been reviewed, these set of comments should be shorter.
- The estimated SER issue date is middle of August 2006. The duration from mid February to August is occupied by review time. TA-V has little control over the duration of review.
- Upon completion of the SER, any conditions of approval will be required for addressing. The SER will authorize SNL to perform SFR testing in the GIF. Subsequent safety reviews will still be necessary.



Conclusion

- The GIF DSA update to include the SFR experiments is well underway.
- Majority of time lag is due to lengthy review cycle.
- Increased staffing does not equate to a large savings on the approval end.
- The TA-V reactor facilities DSAs are completed which paves the way for the GIF.
- Experiment hardware design are nearing completion. Lessons learned from DU testing to be incorporated into the final design.



Continued Areas of Concern

- Post-test disposal of experiment hardware:
 - Agreement between SNL and outside entity to ship post test chambers and experiment equipment off-site for temporary storage at that site. Without agreement for spent fuel, SNL cannot conduct spent fuel testing NOR receive the spent fuel targets.
 - Experiment campaign will continue contingent upon obtaining approval for spent fuel post test materials.
 - This includes both receipt of spent fuel targets and shipment of post test experiment hardware.
 - Shipping cask CoC update to support post test shipment.