

INL SNF PROGRAM

presented to

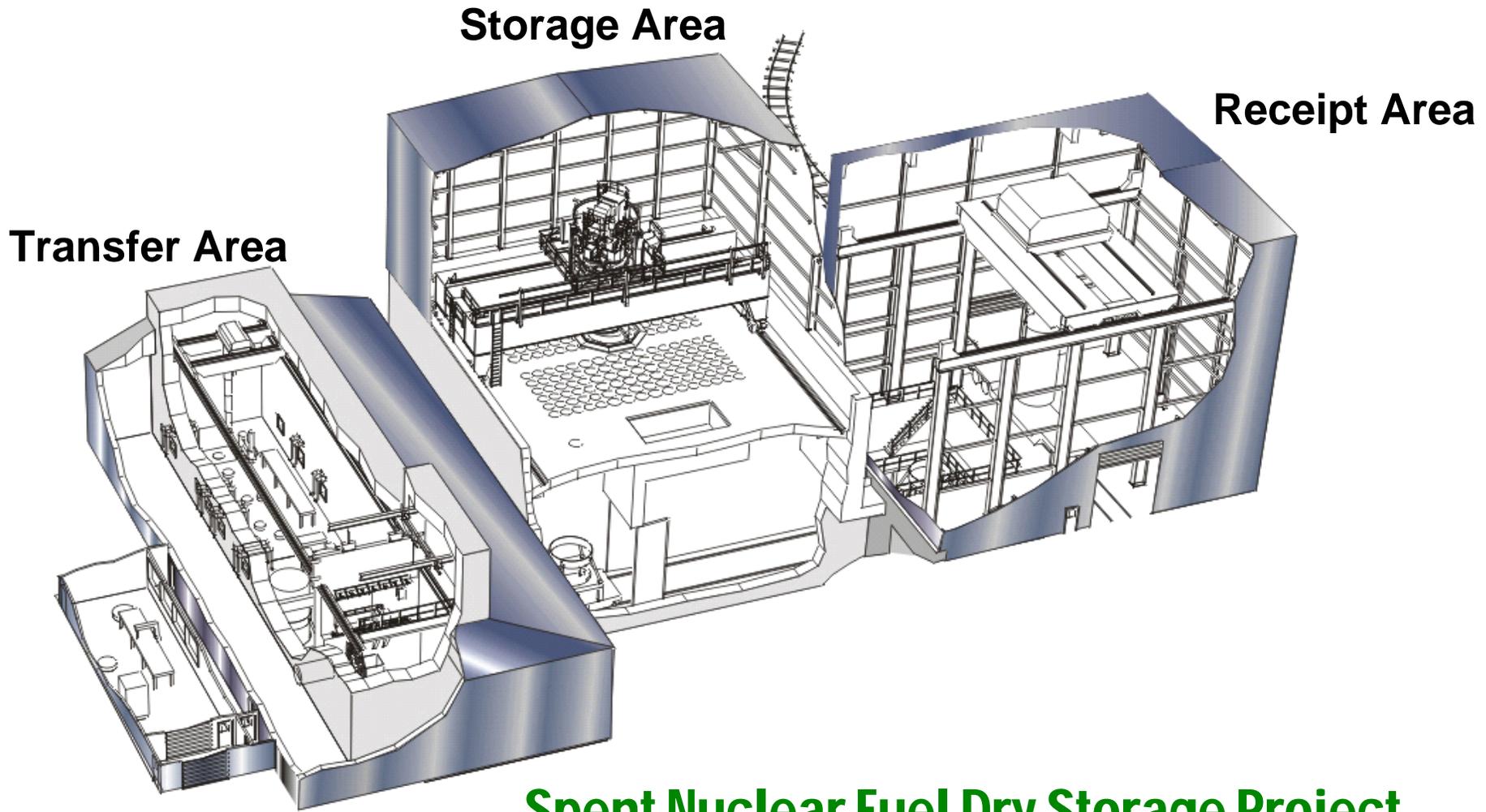
**National Spent Nuclear Fuel Program
Strategy Meeting
January 23 - 24, 2007
Augusta, GA**

presented by

**R. O. Ramsey
INL SNF Program Manager
U. S. Department of Energy
Idaho Falls, Idaho**

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The INL EM-Managed Spent Nuclear Fuel Program



Spent Nuclear Fuel Dry Storage Project

1. INL's Spent Fuel Management Strategy

1. Perform national responsibilities:
 - Receive and store domestic fuels;
 - Receive and store ATR SNF; and
 - Receive and store FRR fuels.

Status and Accomplishments:

- 50 truck cask equivalents during the period FY98-FY07

FY	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
FRR	3	5	1	3	0	1	2	0	0	2	17
DRR	0	0	0	0	0	31	2	2	1	0	36
Total	3	5	1	3	0	32	4	2	1	2	53

**2007 Plans: DRR receipt: 1 cask from Tx A&M; 8 casks from RL; 4 casks from SNL
FRR receipt: 2 casks from MIT/Japan - completed.**

1. INL's Spent Fuel Management Strategy

2. Address vulnerabilities:

- Place wet stored SNF into interim dry storage by 12/31/23.

Status and Accomplishments:

- As of 09/15/03, five of six wet storage pools containing EM-managed legacy SNF have been emptied.
- The sixth must be emptied by 12/31/2023¹ → 09/30/2012².

SNF Wet Storage Facility	Date Emptied
TRA-660, ARMF/CFRMF Canal	10/28/1997
CPP-603, Basins	04/28/2000
TRA-603, MTR Canal & Plug Storage	09/24/2002
TAN-607, Basin	09/29/2002
PBF-620, Pool	09/15/2003
CPP-666, Basins	09/30/2012 (planned)

1 - Idaho Settlement Agreement; 2 - Planning commitment

1. INL's Spent Fuel Management Strategy

3. Consolidate spent fuel storage areas:

- Relocate all SNF into a single management area at INTEC.

Status and Accomplishments:

- As of 10/18/05, all SNF facilities throughout the site containing EM-managed legacy SNF have been consolidated at INTEC.

SNF Storage Facility	Date Emptied
TRA-660, ARMF/CFRMF Canal	10/28/1997
TRA-603, MTR Canal & Plug Storage	09/24/2002
TAN-607, Basin	09/29/2002
PBF-620, Pool	09/15/2003
TAN-791, Dry Storage Pad	10/26/2004
New NE Scope (TRA SNF)	10/18/2005

1. INL's Spent Fuel Management Strategy

4. Make DOE-owned legacy SNF road-ready:

- Support removal from Idaho and Colorado by 01/01/35.**

Status and Accomplishments:

- DOE determines to design, NRC-license, build and operate the SNFDSP.**

12/92 Initial Feasibility Studies published.

06/96 Project validated as a 1998 LICP.

01/97 DOE redefines acquisition strategy from standard LICP to a privatization procurement.

01/99 DOE releases RFP.

05/00 DOE awards contract to Foster Wheeler Environmental Corp (FWENC).

11/04 NRC grants license.

02/06 Terminated contract with FWENC, paid FWENC \$82M for services rendered.

04/06 Resubmitted CD-0 to HQ.

? Submit request for license transfer to NRC.

2. FY2006 – Accomplishments for the INL SNF Program

10/18/05 – Received the last of the planned three casks (100%) from TRA to INTEC for storage at CPP-749. This activity completes the consolidation of NE-managed SNF to EM space resulting from the exchange as planned within the two contracts.

12/15/05 – Received contractor alternative proposal.

08/01/06 – Completed DRR receipt (one cask) – Texas A&M U (TAMU).

09/26/06 – Completed and signed MOA between DOE-ID/EM and NR/IBO for SNF returns.

09/28/06 – Completed ATR SNF receipts (31 of 31).

09/30/06 – Completed 96 of shipments of 1,054 FUs to empty CPP-666 of EM-managed SNF.

[Total 104 transfers of 1,102 FUs; 35% complete.]

3. FY2007 – Accomplishments for the INL SNF Program

10/20/06 – Received FRR receipt (two casks)

Mushashi Institute of Technology (MIT/Japan).

11/21/06 – Transmitted LCB (scope, cost and schedule) to NR/IBO.

12/05/06 – Received 3 of planned 21 shipments of ATR SNF.

01/06/07 – Completed 16 shipments of 101 FUs to empty CPP-666 of EM-managed SNF.

[Total 120 transfers of 1,203 FUs; 38% complete.]

01/08/07 – Independent cost estimate review submitted to DOE-ID comparing the DOE-ID/EM SNF baseline with the contractor proposed alternative provided in CD-1.

4. The Future

1. Projected Accomplishments

- **Complete review of ICE for CD-1 by 01/21/07.**
- **NR/IBO complete review of LCB (cost, scope and schedule) to reach agreement on program cost by 02/15/07.**
- **Select SNF management option in CD-1 in 3rd Qt FY07.**
- **The last wet storage facility will be emptied with the transfer of SNF managed at CPP-666 to several dry storage facilities located at INTEC, ANL-W (MFC) and NRF by 09/30/2012. [EM-owned SNF out by 09/30/09.]**

4. The Future

2. Needs

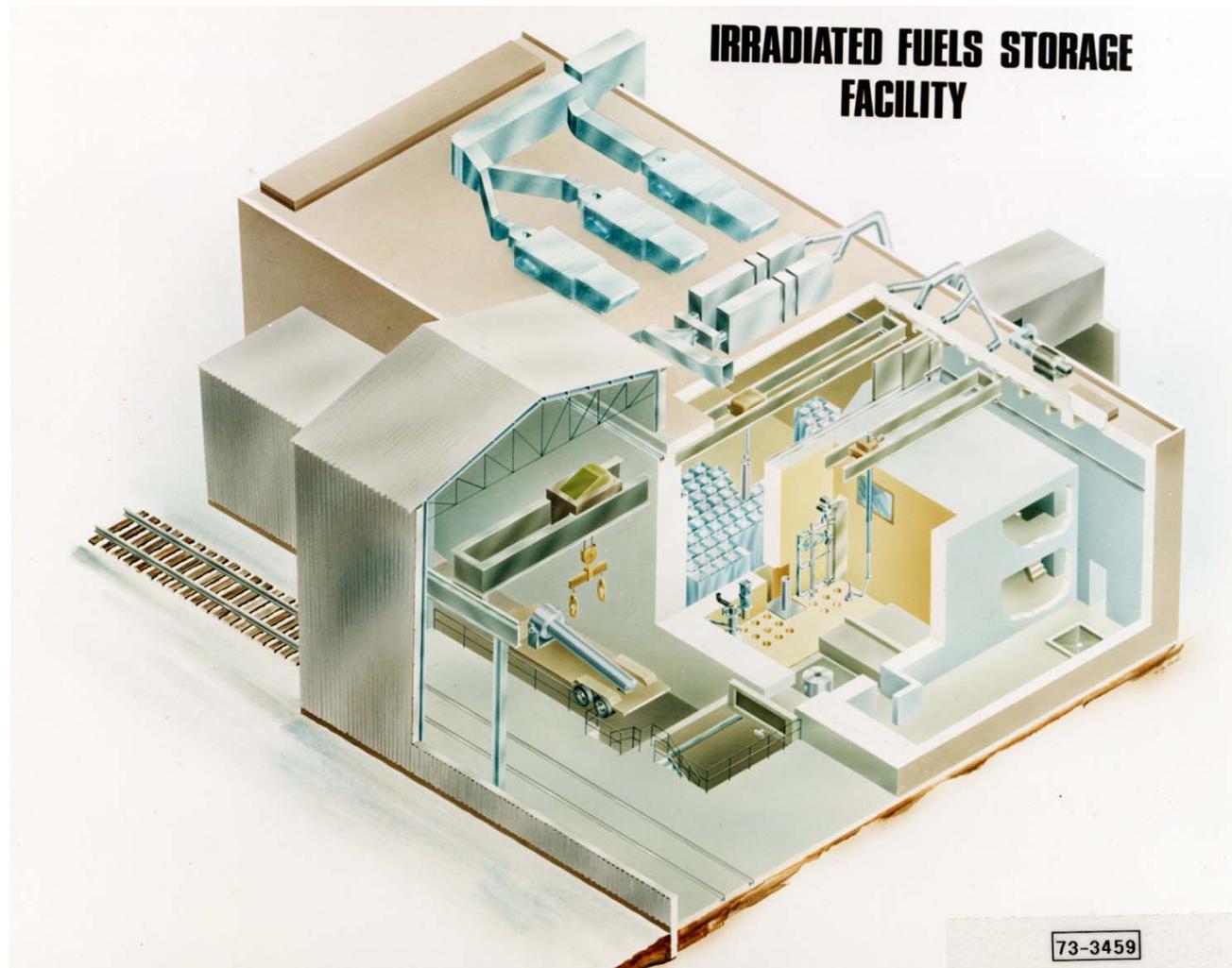
- **EM/HQ to determine if sodium-bonded SNF should be treated.**
- **EM/HQ to negotiate ownership of EBR-II SNF managed at INTEC/ CPP-666.**
- **EM/HQ to determine if epoxied SNF should be treated.**
- **EM/HQ to determine if the baseline plan to execute the SRS/INL SNF swap should proceed.**
- **EM/HQ to determine new INL SNF program path forward.**

5. Pictures

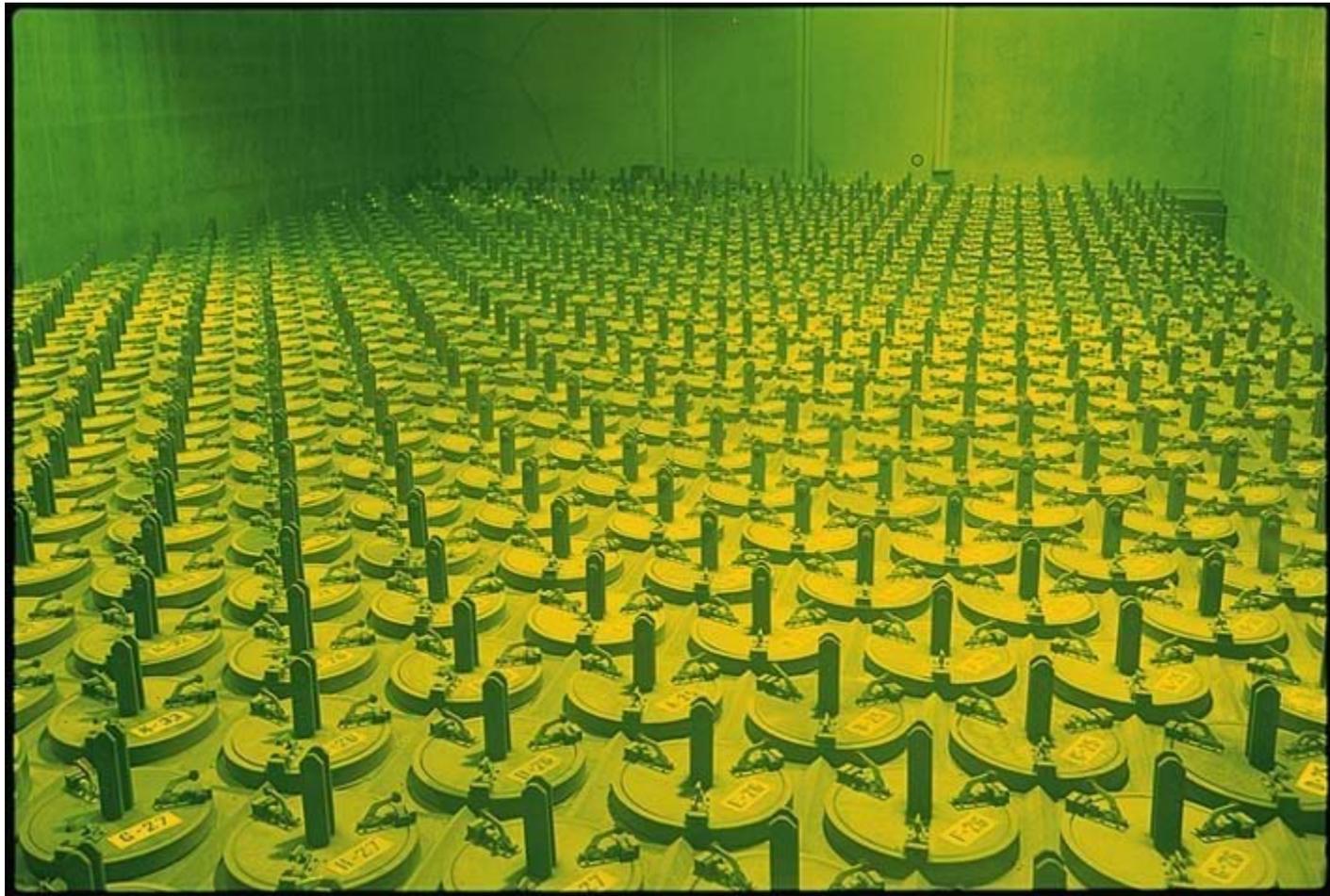
CPP-603: Wet & Dry Fuel Storage Facility External View



CPP-603: Wet & Dry Fuel Storage Facility Irradiated Fuel Storage Facility (IFSF) Schematic



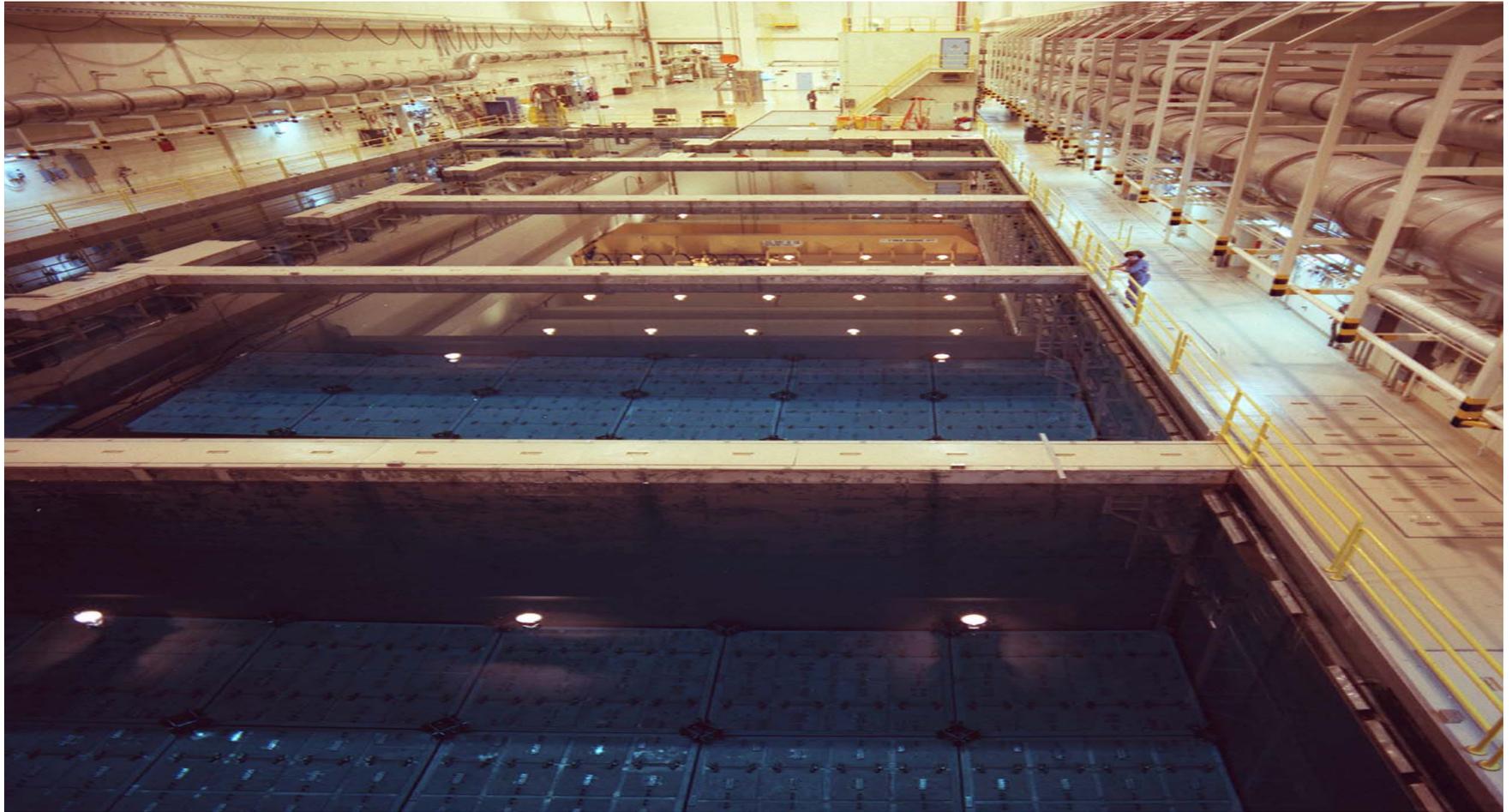
CPP-603: Wet & Dry Fuel Storage Facility Irradiated Fuel Storage Facility (IFSF) Fuel Array



FDP/FAST Facility CPP-666



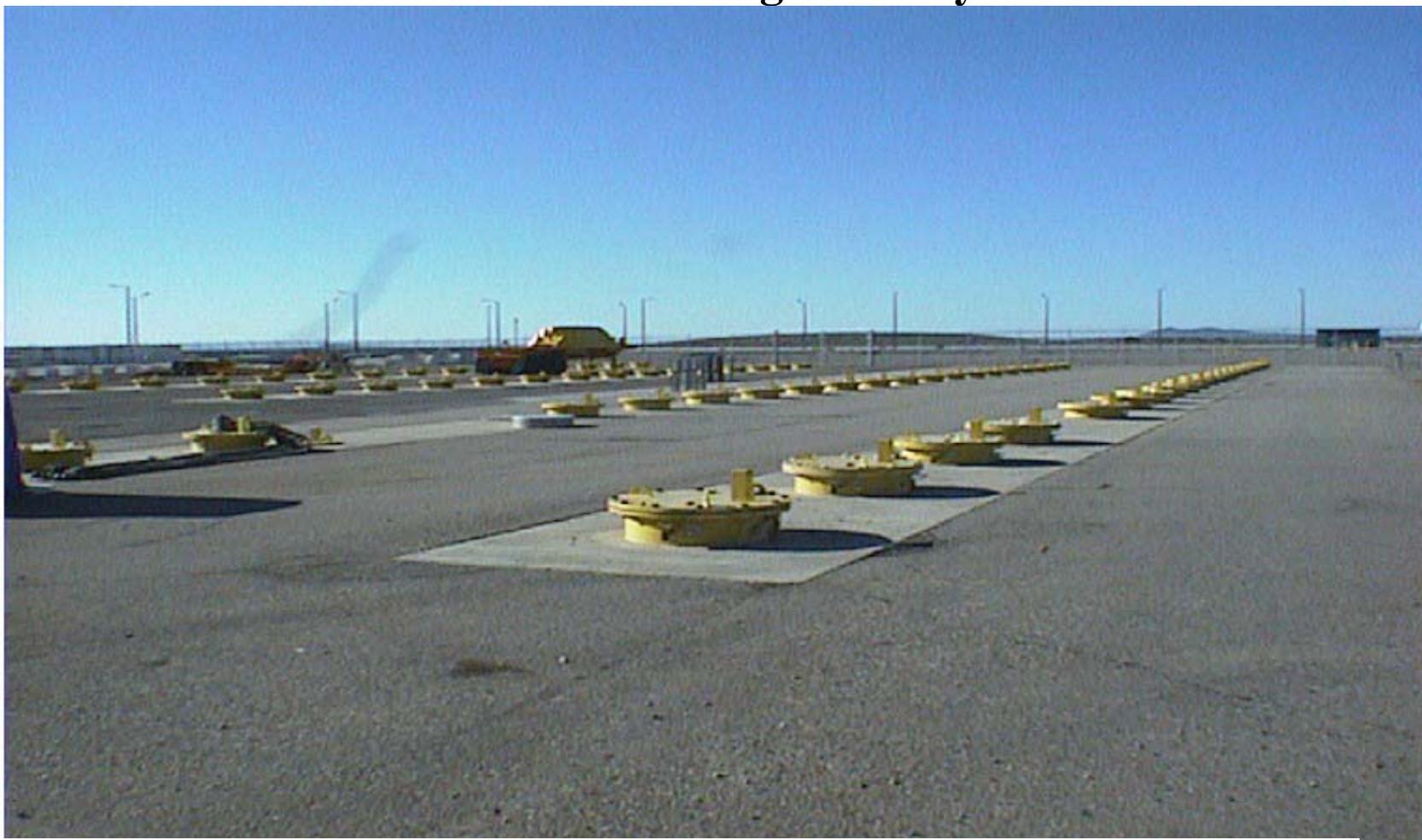
CPP-666 Fuel Storage Pools 1-6



CPP-749: Peach Bottom Fuel Storage Facility Outside the Fence



CPP-749: Peach Bottom Fuel Storage Facility Inside the Fence



CPP-749: Peach Bottom Fuel Storage Facility Working over a well



CPP-1774 - TMI-2 ISFSI



Moving cask from TAN-791 to CPP-2707



Arrival of WV SNF – July 2003

