FIGURE 3.2
SHIELDED CELL LAYOUT
CASKS AND VAULTS IN SHALLOW TRENCHES.
SECTION B-B
FROM FIGURE 3.5

FIGURE 3.7
CASKS AND VAULTS IN SHALLOW TRENCHES
STORAGE CHAMBERS – PART ELEVATION
SECTION C–C
FROM FIG 3.5

FIGURE 3.8
CASKS AND VAULTS IN SHALLOW TRENCHES
STORAGE CHAMBERS – PART ELEVATION
1. Receive and verify module transportation cask package (includes storage cask, impact limiters and tie-down equipment)
2. Position transportation package below process building crane and release tie-downs
3. Raise transportation package from transporter and locate and secure into rotate frame
4. Rotate transportation package through 90° to return storage cask to its correct orientation
5. Release impact limiter wire rope securing assemblies and remove the top impact limiter
6. Lift the storage cask out of the bottom impact limiter and park in the set-down area using the processing building crane
7. Return impact limiters, wire rope assemblies and tie-down equipment to the donor site using the road transporter
8. Check the storage cask for damage/defects
9. Collect cask from set-down position with cask transporter and transfer to store
10. Cask transporter positions final cask on lower tier of row
11. Return cask transporter to process area awaiting receipt of next storage cask
12. Next module transportation cask package arrives in process building, repeat unloading/rotation process & collect cask with cask transporter

FIGURE 3.10 (SHEET 1 OF 2)
SEQUENCE DIAGRAM
CASKS AND VAULTS IN SHALLOW TRENCHES
EXISTING CASK, RECEIPT AND EMTACEMENT
13. CASK TRANSPORTER DELIVERS 4TH CASK TO TRANSFER POSITION BELOW STORE CRANE

14. CASK TRANSFERRED TO UPPER TIER STORAGE POSITION

15. LOADING SEQUENCE CONTINUED WITH CASK TRANSPORTER POSITIONING LOWER CASKS

16. REMAINING UPPER TIER CASKS DELIVERED BY CASK TRANSPORTER AND POSITIONED BY STORE CRANE

17. RETURN CASK TRANSPORTER TO PROCESS AREA WAITING RECEIPT OF NEXT STORAGE CASK

FIGURE 3.10 (SHEET 2 OF 2)
SEQUENCE DIAGRAM
CASKS AND VAULTS IN SHALLOW TRENCHES
EXISTING CASK, RECEIPT AND EMPLACEMENT
1. Irradiated Fuel Transportation Cask (ITC) Received at CES Facility

2. Transfer ITC from Transportation Vehicle onto Module Cell Bogie

3. Transfer ITC to Module Receipt Port on Underside of Shielded Cell

4. Transfer Fuel Modules (Quantity 2) from ITC into Shielded Cell

5. Replace Empty ITC Cask onto Transportation Vehicle for Return to Reactor Site

6. Repeat Loading Process for a Second ITC (Total 4 Modules)

7. Load "New" Module Storage Cask onto Module Cell Bogie

8. Transfer Module Storage Cask into Cask Lidding Area, Remove Cask Lid and Retain

9. Locate Module Storage Cask at Loading Position Below Shielded Cell

10. Load Modules into Module Storage Cask (Quantity 4)

11. Replace Module Storage Cask Lid and Install Module Lid Transfer Clamp

12. Transfer Lidded Cask into Cask Processing Area

**FIGURE 3.11 (SHEET 1 OF 2)**

SEQUENCE DIAGRAM

CASKS AND VAULTS IN SHALLOW TRENCHES

CASK LOADING AND EMPLACEMENT
13. MODULE STORAGE CASK PROGRESSSED THROUGH CASK CLOSURE, INSPECTION, AND VALIDATION OPERATIONS

14. COMPLETED CASK COLLECTED BY CASK TRANSPORTER

15. CASK POSITIONED WITHIN SHALLOW TRENCH

16. RETURN CASK TRANSPORTER TO PROCESS AREA WAITING RECEIPT OF NEXT STORAGE CASK
FIGURE 3.12 (SHEET 1 OF 2)
SEQUENCE DIAGRAM
CASKS AND VAULTS IN SHALLOW TRENCHES
VAULT LOADING, BASKET RECEIPT & EMPLOACEMENT
FIGURE 3.12 (SHEET 2 OF 2)
SEQUENCE DIAGRAM
CASKS AND VAULTS IN SHALLOW TRENCHES
VAULT LOADING, BASKET RECEIPT & EMLACEMENT