AP1000DCDFileNPEm Resource

From: Altmayer, Scott A [altmaysa@westinghouse.com]
Sent: Wednesday, June 16, 2010 6:20 PM
To: Buckberg, Perry
Cc: Stipanovich, Steven M; Morrow, Robert J.
Subject: Resubmit proper draft RAI-TR44-09 R2A
Attachments: Copy of RAI-TR44-09 R2A-NRC DRAFTeng.doc

Perry,

This was my oversight.
Attached is the proper version of the draft RAI to replace the incomplete version I sent on 6/13 (file "Copy of RAI-TR44-009 R2A-NRC DRAFTsaa").

--SCOTT ALTMAYER--
AP1000 Licensing and Customer Interface
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Hearing Identifier: AP1000_DCD_Review
Email Number: 420

Mail Envelope Properties (EF1E2C8A89BEC84D80BBDC48E17396EE7F1E50A4)

Subject: Resubmit proper draft RAI-TR44-09 R2A
Sent Date: 6/16/2010 6:19:54 PM
Received Date: 6/16/2010 6:20:10 PM
From: Altmayer, Scott A

Created By: altmaysa@westinghouse.com

Recipients:
"Stipanovich, Steven M" <stipansm@westinghouse.com>
Tracking Status: None
"Morrow, Robert J." <morrowrj@westinghouse.com>
Tracking Status: None
"Buckberg, Perry" <Perry.Buckberg@nrc.gov>
Tracking Status: None

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MESSAGE	310	6/16/2010 6:20:10 PM
Copy of RAI-TR44-09 R2A-NRC DRAFTeng.doc		1985600

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AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-TR44-009
Revision: 1

Question: (Revision 1)

Insufficient descriptive information has been included in the new fuel report to permit an adequate review of the structural/seismic analysis of the new fuel rack. Please provide descriptive information including plans and sections showing the new fuel rack and vault walls. All of the major features of the rack including the cell walls, baseplate, pedestals, bearing pads, neutron absorber sheathing, any impact bars, welds connecting these parts, and any other elements in the load path of the rack should be shown on one or several sketches. These sketches should also indicate related information which includes key: cutouts, dimensions, material thicknesses, and gaps (fuel to cell, rack to walls). In addition to the above, for review of postulated fuel handling drop accident and quantification of the drop parameters, sketches with sufficient details for the fuel handling system should be provided.

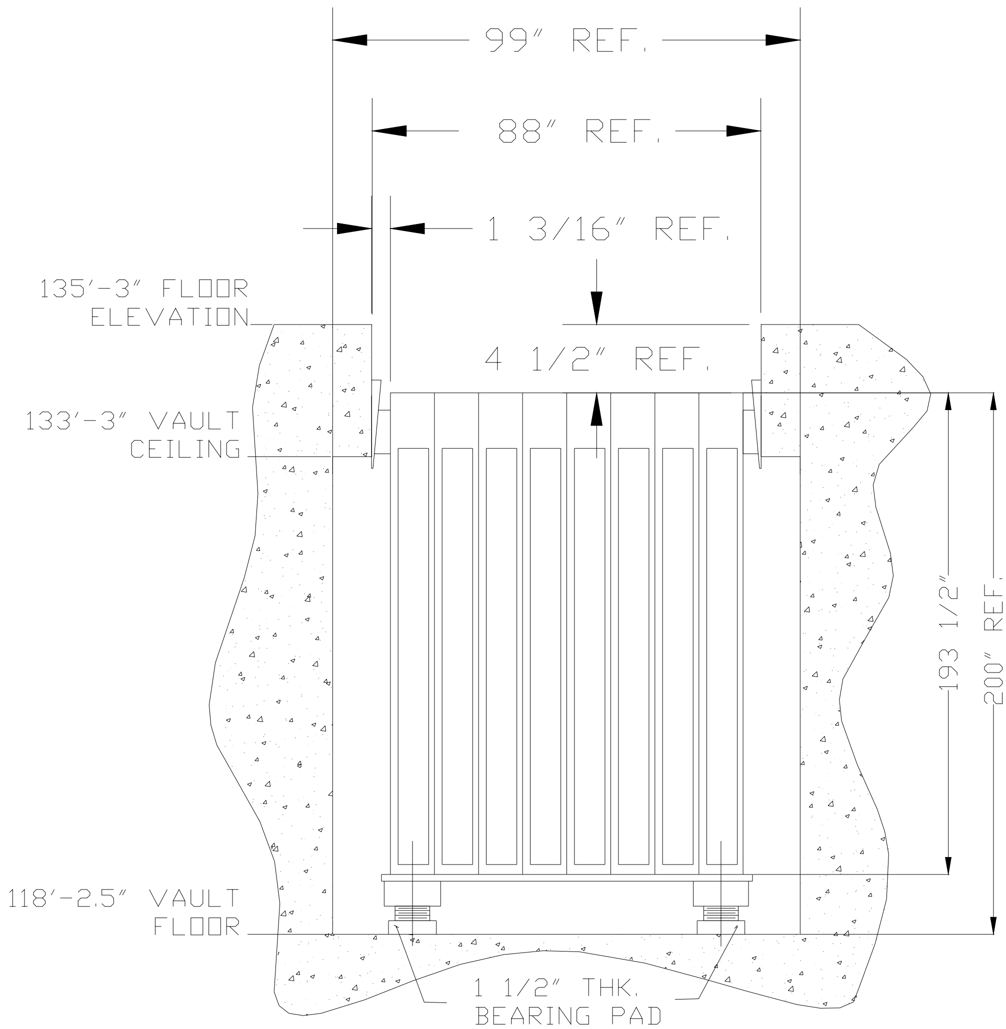
Staff Assessment: Response similar to response for spent fuel racks. See RAI -TR54-15.

New Question: (Revision 2)

During the June 2010 audit, the NRC requested that dimension and gap information for the new fuel racks be clarified between the three similar RAIs (RAI-TR44-09, RAI-TR44-017, RAI-TR44-25) to show consistency and alignment to the current design basis shown in DCD Figure 9.1-1.

Westinghouse Response: (Revision 1)

Figures TR44-9.1 through TR-44-9.5 provide additional descriptive information on the new fuel rack and New Fuel Storage Pit floor and walls. The new fuel handling system is still in final design and no sketches are available. The quantification of the drop parameters has been established and analyzed in Technical Report Number 44. A conservative drop height of 36 inches has been assumed even though the most likely drop height will not exceed 18 inch above the new fuel rack. The total drop weight is 2,027 pounds, which consist of a new fuel assembly, control assembly and new fuel handling tool.



ELEVATION VIEW OF NEW FUEL STORAGE RACK
(EAST WALL VIEW LOOKING WEST)

FIGURE TR44-9.1

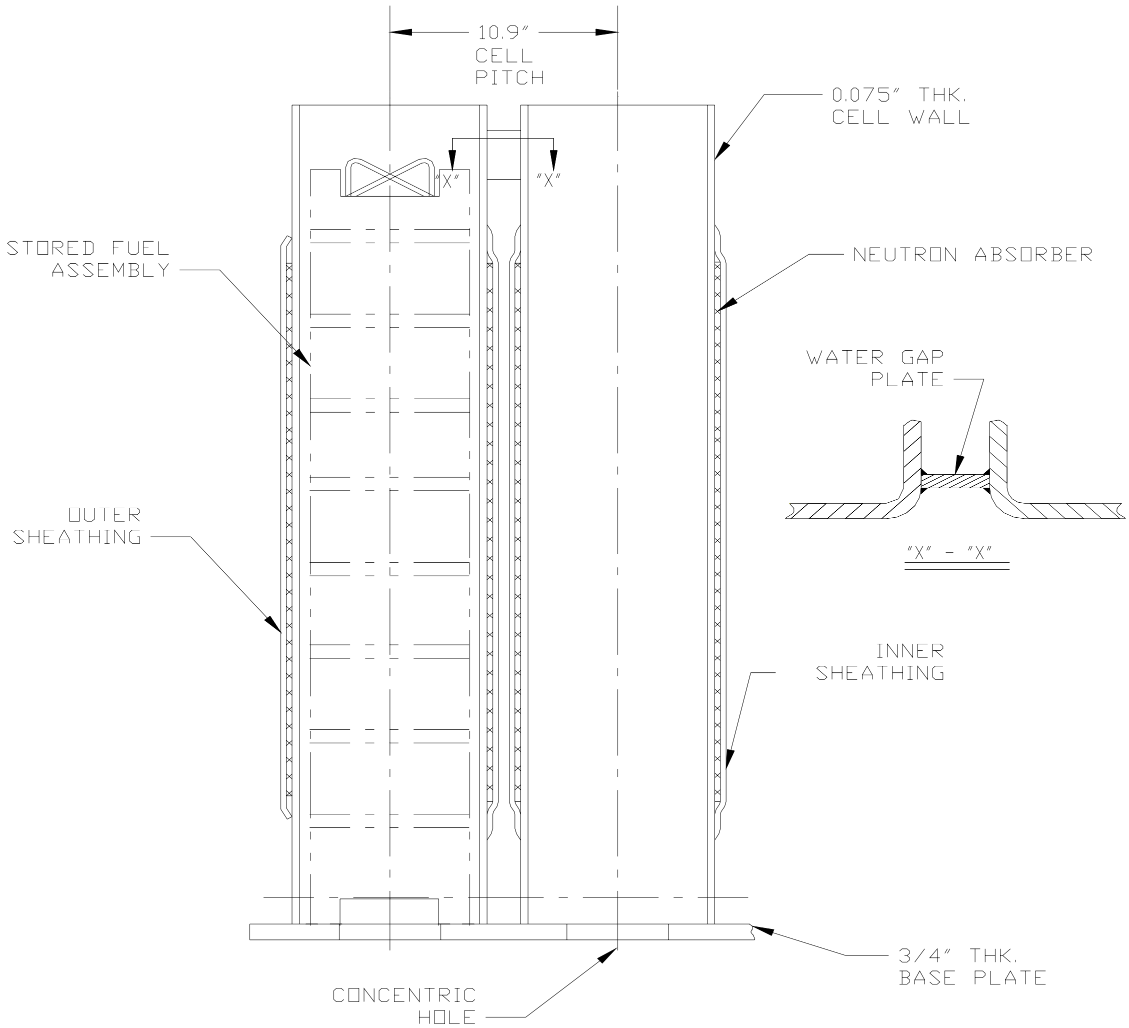


FIGURE TR44-9.2; ELEVATION VIEW OF NEW STORAGE RACK CELLS

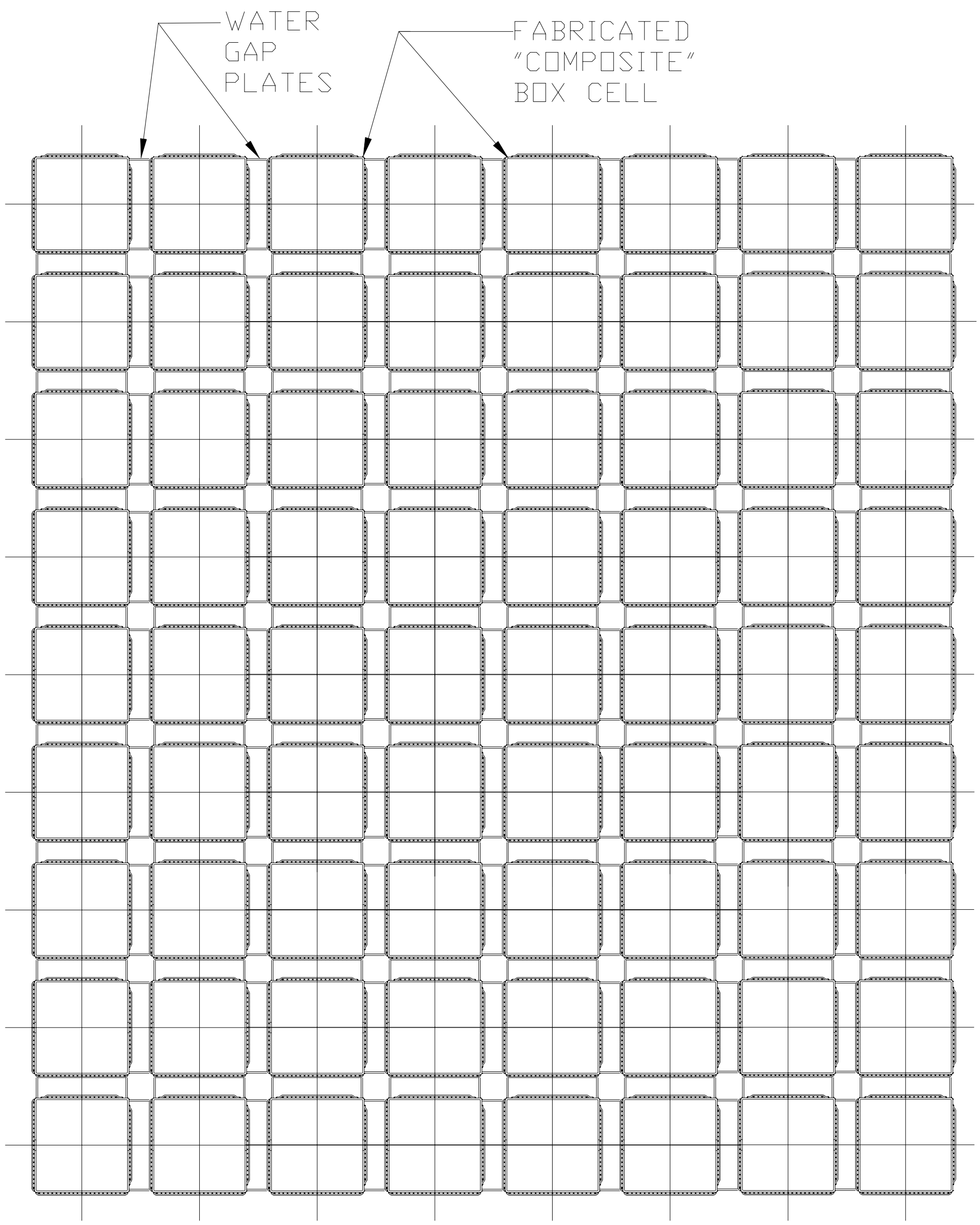


FIGURE TR44-9.3; STORAGE CELL ARRAY
FOR NEW FUEL STORAGE RACK

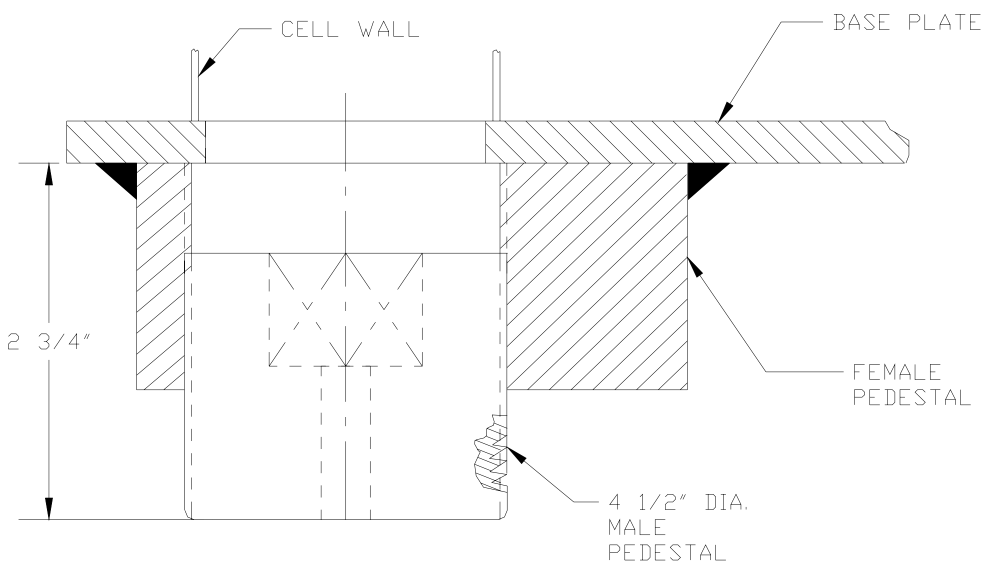


FIGURE TR44-9.4; CROSS SECTION OF ADJUSTABLE SUPPORT

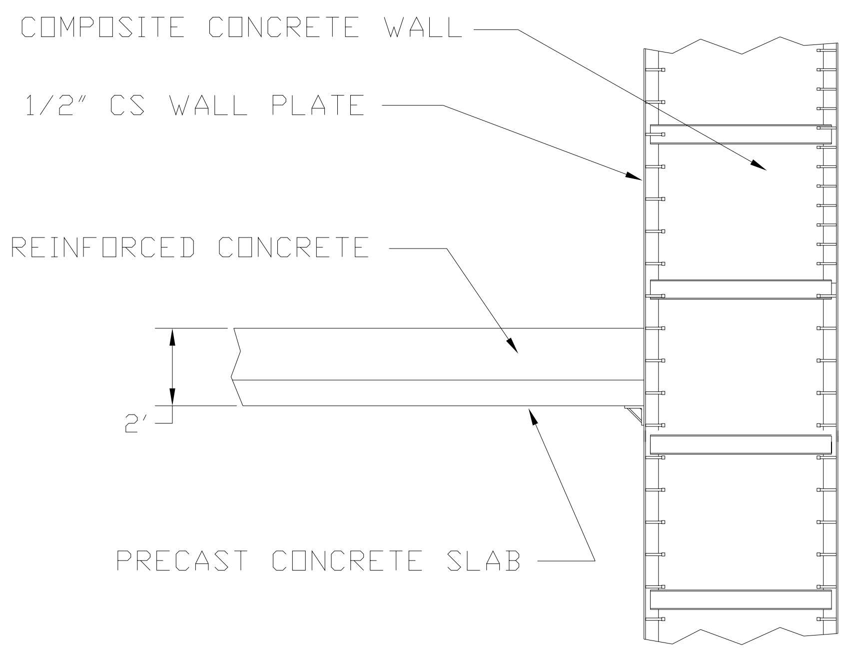


Figure TR44-9.5 New Fuel Pit Floor and Wall Detail

Westinghouse Supplemental Response following May 21 and 22, 2008 Technical Review:

The two figures shown in the DCD and TR markup sections provide updates of the layout and cross section of the new fuel storage rack. The figures replaced Figure 2-1 of TR44 and DCD Figure 9.1-1, Sheets 1 and 2; see the DCD and TR markup sections for details.

Westinghouse Response: (Revision 2)

The figures (and related discussion) included in all of the previous revisions of this RAI response are out dated and are superseded as follows:

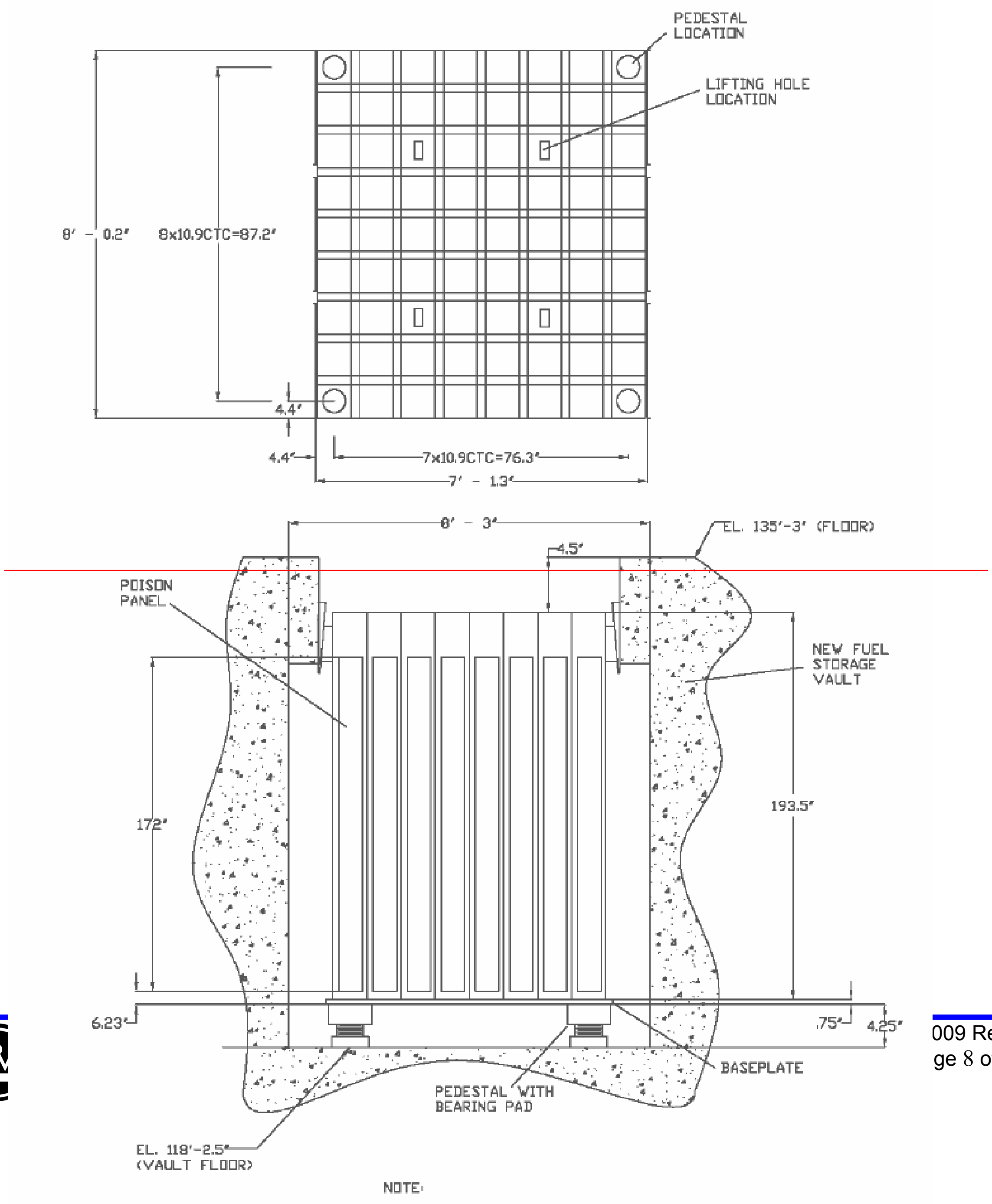
- The latest version of DCD Figure 9.1-1 Sheet 1 is included in the response to RAI-TR44-17, Revision 3.
- The latest version of DCD Figure 9.1-1 Sheet 2 is included in the response to RAI-TR44-25, Revision 1.
- The correct TR44 figures and sheets are incorporated into the latest revision of TR44 (Reference 1).

Reference:

1. APP-GW-GLR-026, Revision 4, “New Fuel Storage Rack Structural/Seismic Analysis,” (Technical Report Number 44)

Design Control Document (DCD) Revision:

Revise Figure 9.1-1, Sheets 1 and 2, as follows:



~~Figure 9.1-1 (Sheet 1 of 2)~~

~~**New Fuel Storage Rack Layout (72 Storage Location)**~~

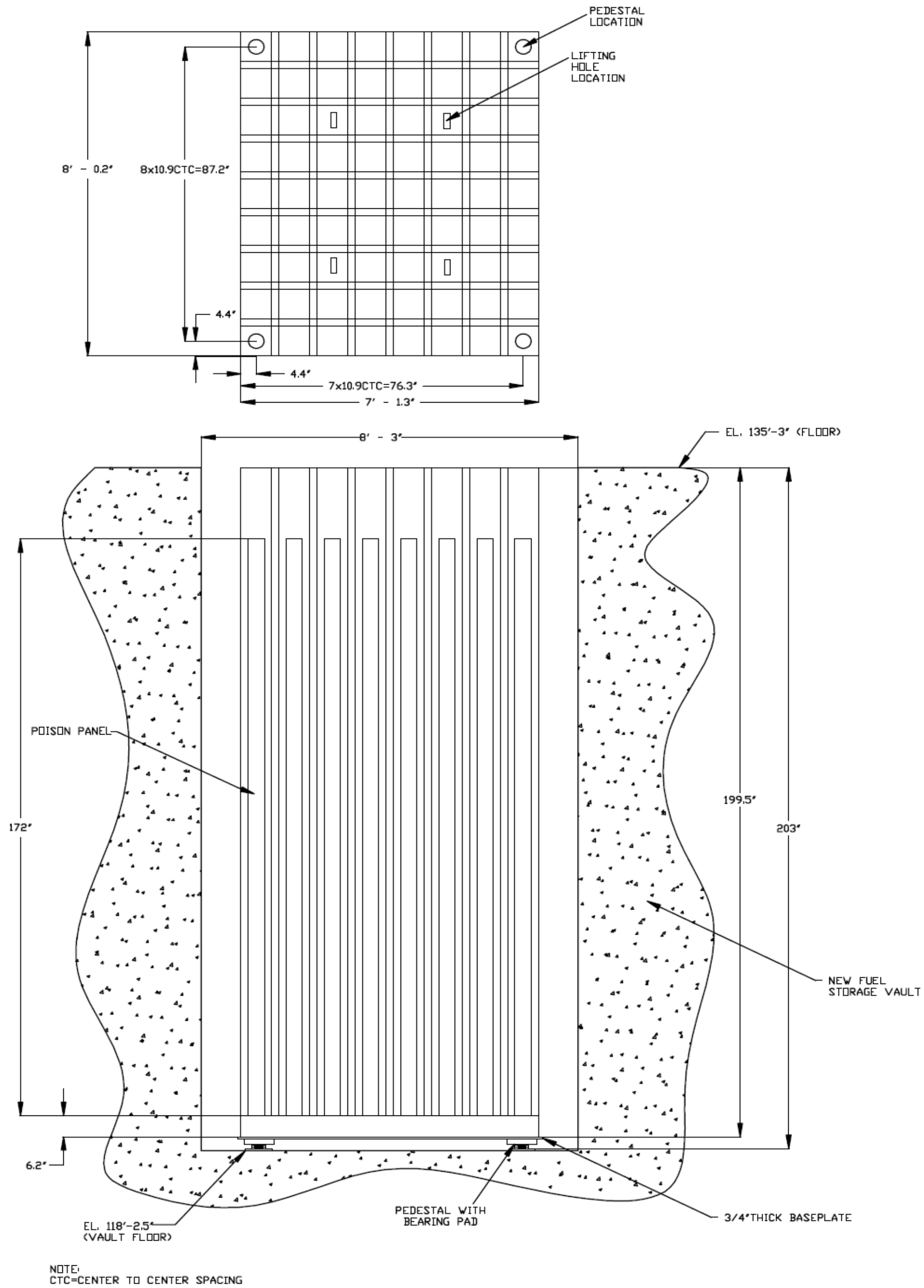
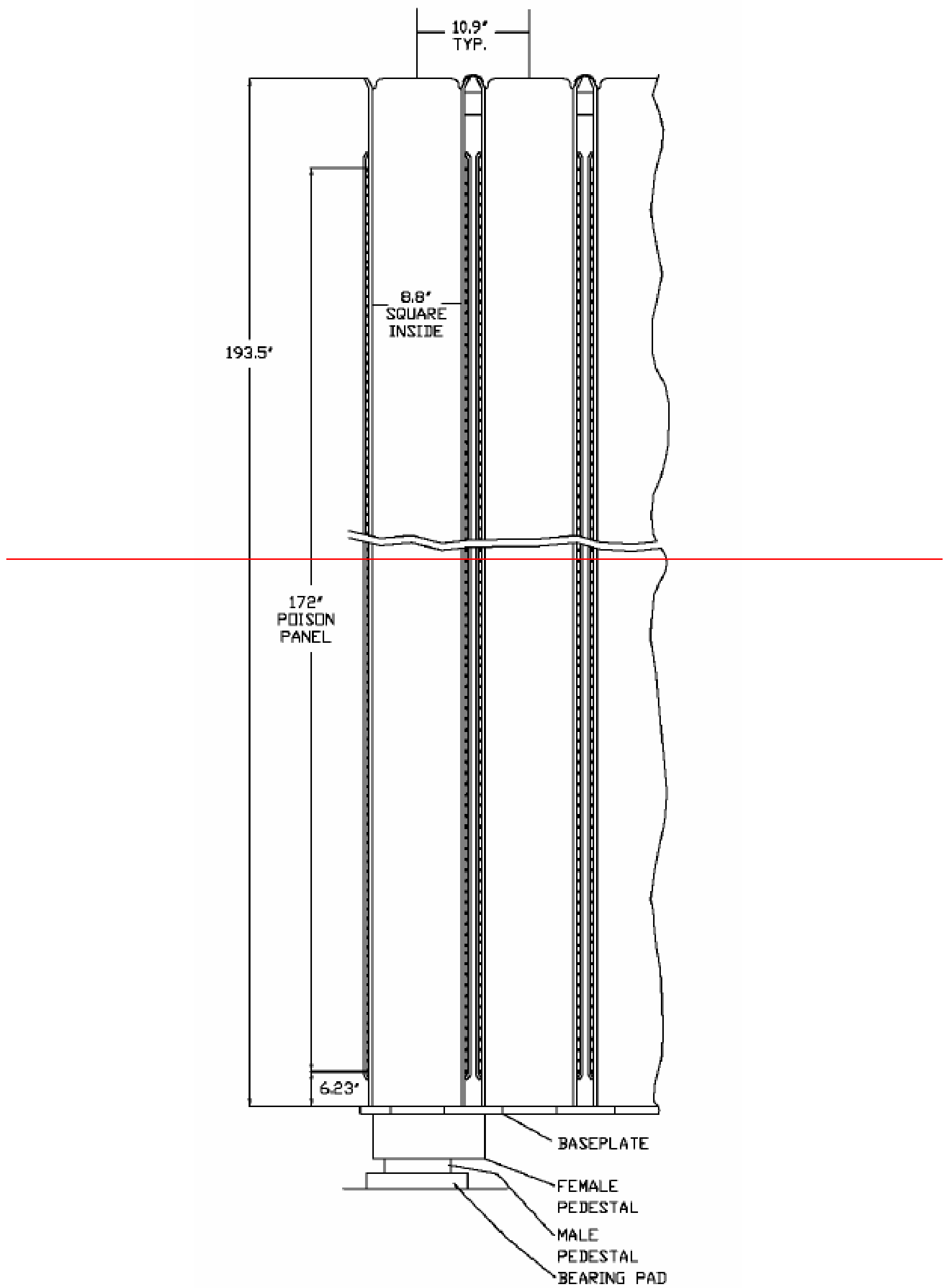


Figure 9.1-1 (Sheet 1 of 2)
New Fuel Storage Rack Layout (72 Storage Location)



~~Figure 9.1-1 (Sheet 2 of 2)~~
~~**New Fuel Storage Rack Cross Section**~~

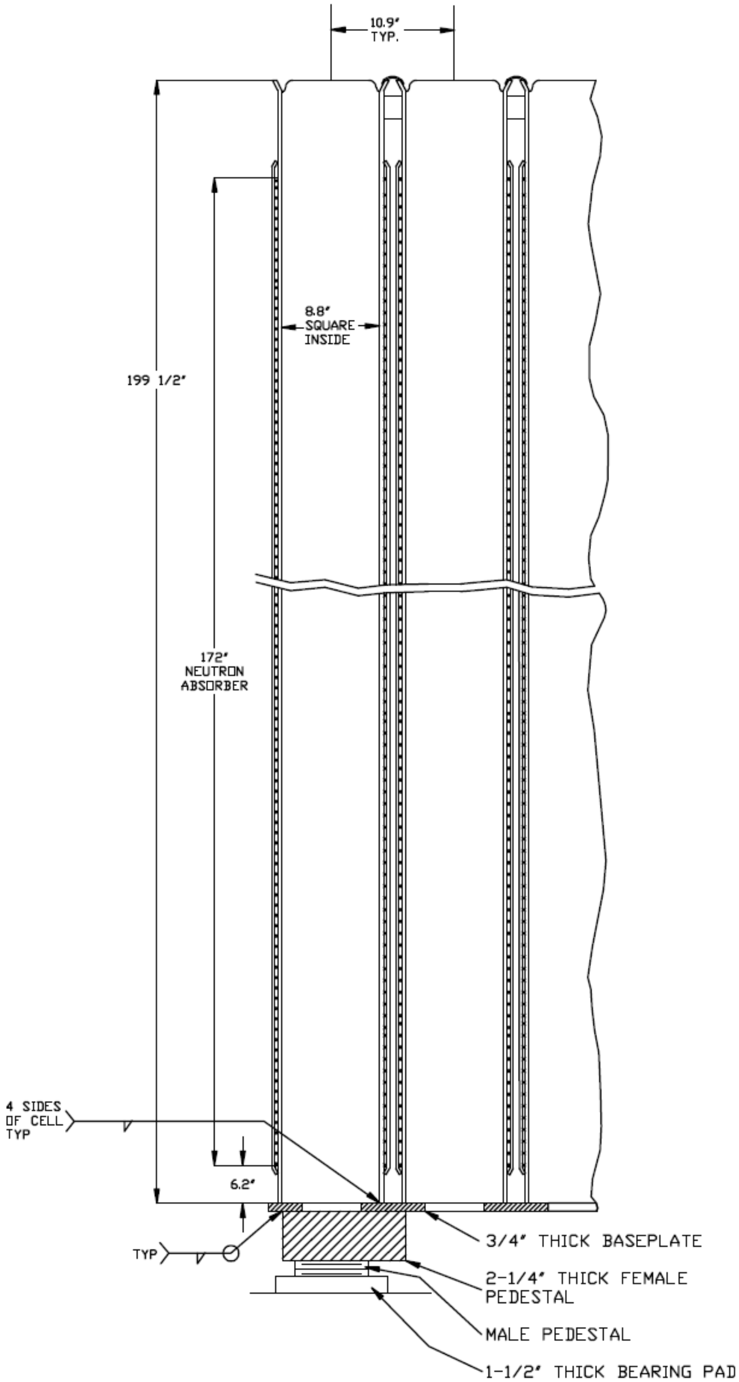


Figure 9.1-1 (Sheet 2 of 2)
New Fuel Storage Rack Cross Section

PRA Revision:
None

Technical Report (TR) Revision:
Figure 2-1 was renamed and replaced by the following 2-sheet figure:

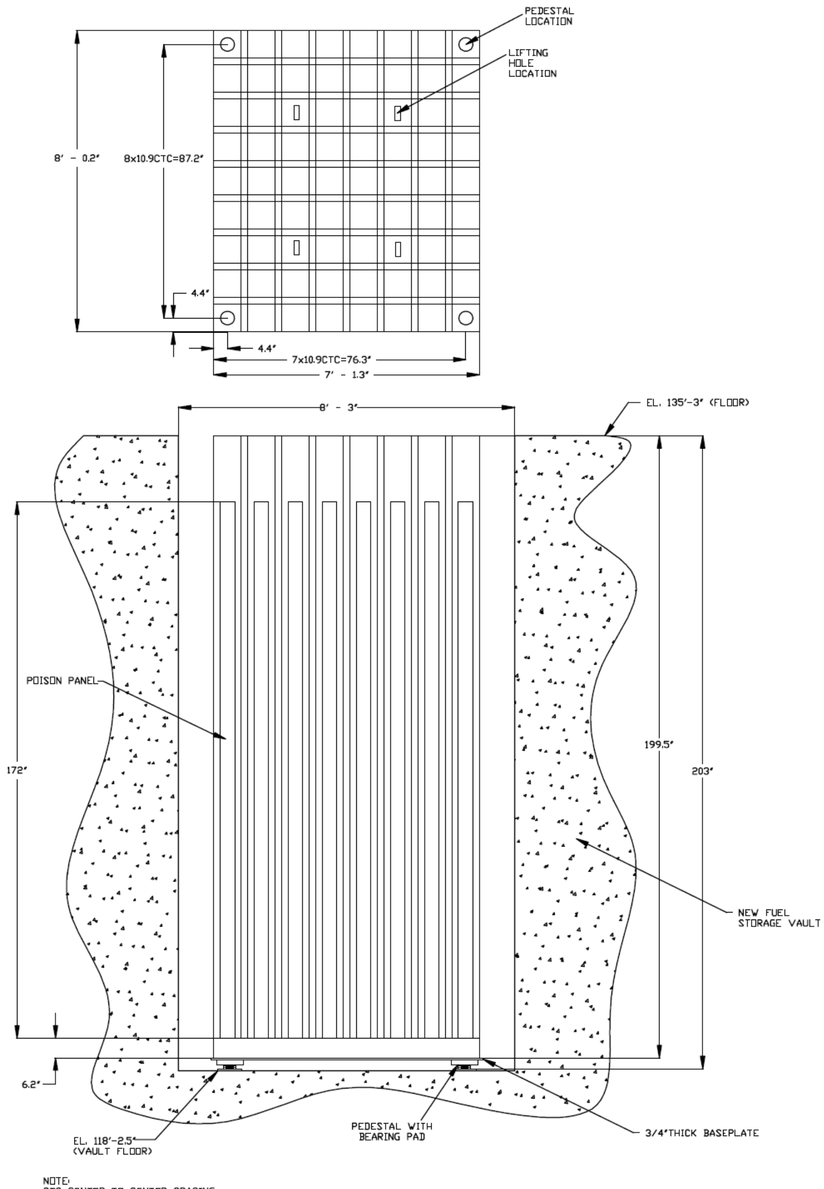


Figure 2-1 New Fuel Storage Rack Layout (72 Storage Location) (Sheet 1 of 2)

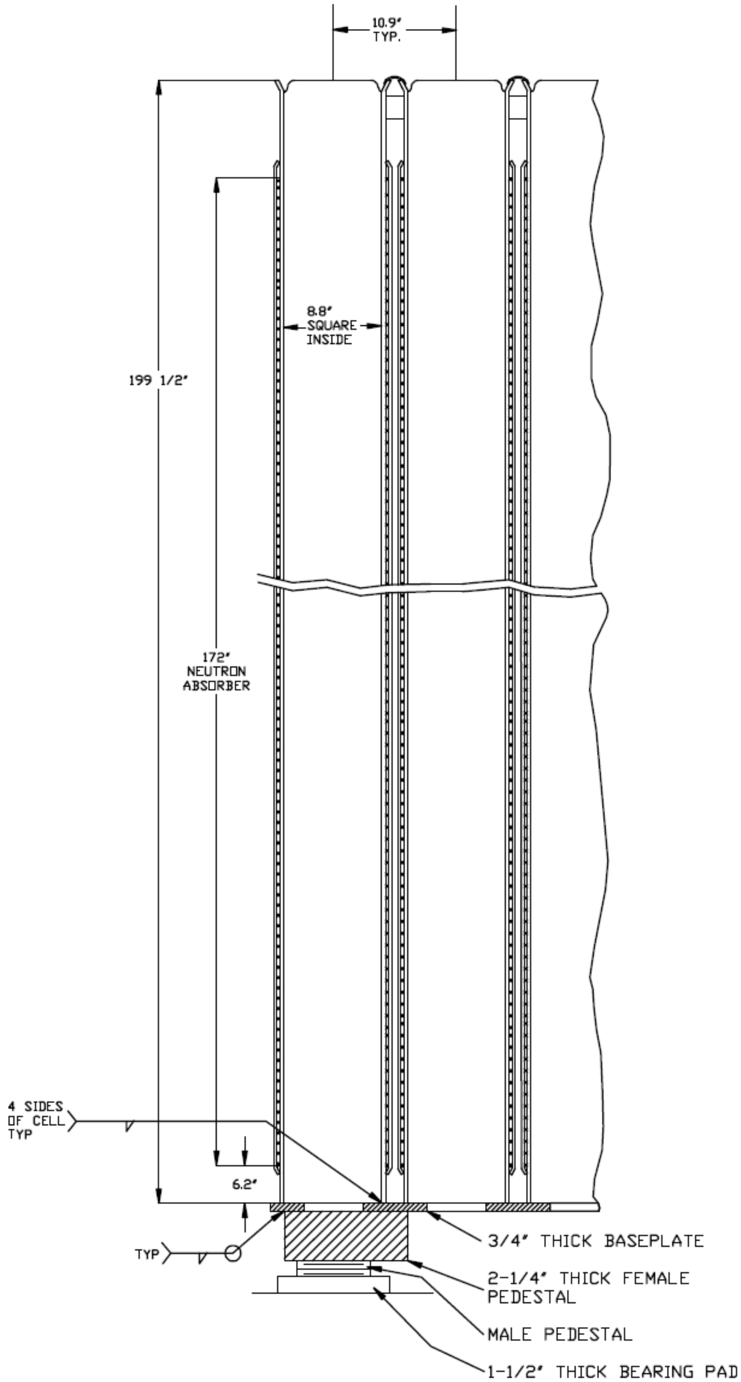


Figure 2-1 New Fuel Storage Rack Cross Section (Sheet 2 of 2)

TR Changes (Revision 2A)

The equivalent new fuel rack layout figures (Sheets 1 and 2 of Figure 2-1) currently shown in the latest revision of TR44 (Reference 1) are correct.