

Three Mile Island Unit 1

Reevaluation of Safety-Related
Concrete Masonry Walls
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ENCLOSURE 1

SUMMARY1. Reevaluation Criteria

In enclosure 2 a reevaluation criteria document is provided to establish the design requirements and the analytical technics for structural reanalysis of the concrete block walls.

2. Justification for the Criteria

A detailed justification document for the above reevaluation criteria is provided in enclosure 3.

3. General Arrangement

The general arrangement of the block walls including the wall identification number, floor elevation and the plant structures are shown in enclosure 4.

4. Configuration of Block Walls

For block wall configuration, specific location, type of material and function, see enclosure 5.

5. Floor Response Spectra

The floor response Spectra curves used for the reanalysis of the block walls are shown in enclosure 6.

6. Results of the Block Wall Reanalysisa) Reanalysis Status

In the sixty day response we had identified eighteen safety related walls that required reanalysis. To date, six walls have been completely reanalyzed. The preliminary reanalysis of the remaining 12 walls is scheduled to be completed by mid December. For complete reevaluation schedule, see enclosure 9.

In the course of the plant survey, it was determined that the bottom elevation of the lowest cable tray is at least a foot above the top elevation of the block walls. Therefore, it was concluded that the failure of the block wall Nos. FHB-1 and FHB-2 cannot possibly jeopardize the integrity of the trays. Thus, these walls were precluded from further reanalysis.

b) Equipment Loads

The effects of the equipment support loads were included in the final reanalysis of the block walls.

The equipment support system generally consists of steel brackets and/or unistrut, with special fittings, anchored to the wall.

c) Final Reanalysis

The results of the final reanalysis for wall Nos. AB-5, AB-6, AB-8, AB-9, AB-10 and AB-13 show the calculated stresses to be well below the allowables, see enclosure 7.

7. Construction Practices

Enclosure 8 is the original plant design masonry specification that outlines the requirements for the material, codes and standards, testing and installation for the concrete masonry walls.

8. Schedule

Enclosure 9 shows the schedule for complete reevaluation of the remaining walls. This schedule is based on the experience to date, performing the reanalysis of the concrete block walls.

ENCLOSURE 2