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Subject:	Re: Fwd: RAI for South Texas Project MB9696-RR-ENG-2-32
Creation Date:	6/27/03 2:58PM
From:	Mohan Thadani
Created By:	MCT@nrc.gov

Recipients	**Action**	**Date & Time**
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MAM4 CC (Matthew Mitchell)	Opened	06/27/03 03:46PM
RAG CC (Robert Gramm)	Opened	06/27/03 03:03PM
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WHK CC (William Koo)	Opened	06/27/03 03:54PM
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MESSAGE	4986	06/27/03 02:58PM

Options

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From: Mohan Thadani
To: INTERNET:awharrison@stpegs.com; Internet:jtconly@stpegs.com
Date: 6/27/03 2:58PM
Subject: Re: Fwd: RAI for South Texas Project MB9696-RR-ENG-2-32

Wayne/John:

The staff has reviewed your request and identified the following questions for your consideration. Your prompt response will help the NRC staff to complete our actions in a timely manner.

Thanks.

Mohan
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South Texas Project
Relief Request RR-ENG-2-32
Request for Additional Information

1. Page 2 of 18, second paragraph under Proposed Alternatives and Bases Providing and Acceptable Level of Quality and Safety, discusses the modification of the BMI penetrations while referring to Figure 1. Figure 1 does not clearly show the new geometry between the old and the new nozzle. Secondly, the Alloy 52 J-groove weld is difficult to distinguish. Please provide a more detailed configuration drawing that reflects all the geometries discussed.

2. Please discuss the configuration between the old and new nozzle with respect to welding and nondestructive examination to be performed, if appropriate. If no welding is to be performed between the old and new nozzle junction, please discuss the effects of crevice corrosion and life of the repair.

3. NB-2532 requires that all plates used for vessels and all plates > 2 in. Thickness shall be examined by the straight beam ultrasonic method in accordance with ASTM A-578-08. The acceptance criteria under NB-2532.1(b)(1) allows for base metal discontinuities in the same plane that can be encompassed by a circle up to 3 in. in diameter or ½ the plate thickness in diameter. Taking this into consideration, the Alloy 52 weld pad may be deposited over large laminar segregates allowed by the Construction Code you cited.

On page 4 of 18, under Basis of Alternative, you state: "This UT technique will also examine the base material below the weld pad for laminations and other base material flaws." No UT of the base material prior to welding was noted in your alternative by the staff. Please indicate if this examination is going to be done prior to welding the Alloy 52 pad to assure no significant laminar defects or base material flaws are present prior to welding. If this is not part of your repair plan, then please discuss your action should base material defects be found after the Alloy 52 pad is deposited.

4. On page 6 of 18 you discuss the post weld UT of the Alloy 52 pad. You state: "The weld pad and the base material below the weld pad will be examined by a zero degree UT technique." Please discuss the detectability of both welding and laminar defects while examining through the coarse grained austenitic structure of the Alloy 52 pad. Your discussion should include laboratory results or qualification of the UT method used to determine if base metal and welding flaws are effectively detected by your method.

5. The reason for the repair is due to defects in the original J-groove weld which will remain in the reactor vessel bottom head after the repair. Please discuss your plans for characterization of the defects and successive inspections in accordance with the provisions of the Code, specifically IWA-4310, IWA-4340, and IWB-2420(b). Your discussion should include the technical basis for not meeting these requirements and how an acceptable level of quality and safety is maintained.

6. On page 7 of 18 you cite six precedents. Taking these precedents into consideration, please discuss your plans for successive inspections of the new repair welds.

CC: Matthew Mitchell; Robert Gramm; Timothy Steingass; William Koo