OBAYASHI

Shinagawa Intercity Tower B
2-15-2 Konan,
Minato-ku, Tokyo 108-8502
JAPAN

Designated Original
Per A Sakadales

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your ref : Docket No. 99901409
our ref : OBY_NRC_000002

February 2, 2012

Subject: **Reply to OBAYASHI CORPORATION RESPONSE TO NRC INSPECTION REPORT 99901409/2011-201, NOTICE OF VIOLATION AND NOTICE OF NONCONFORMANCE – REQUEST FOR ADDITIONAL INFORMATION**

Dear Mr. Roach,

Kindly refer to the following pages for our response to the US NRC letter dated December 20, 2011 with regards to above-mentioned subject.

Should you have any further question, please e-mail me at shimizu.akira@obayashi.co.jp.

Very truly yours,

Akira Shimizu
General Manager
Nuclear Facilities Division
Obayashi Corporation

cc: Kerri Kavanagh, *NRO/DCIP/CQAB*
Robert Prato, *NRO/DCIP/CQVA*
Bret Tegeler, *NRO/DE/SEB1*
Mohamed Shams, *NRO/DE/SEB1*
Russell Lion, *Westinghouse Electric Company*
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Yuji Itabashi, *Obayashi Corporation*

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SAKADALES

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1. IR 99901409/2011-201 (RAI, December 20, 2011)

	Description
NRC Statement	Specifically, the inspection report cover letter stated, in part, that "the NRC inspection team performed a limited scope inspection. The deficiencies identified may affect other portions of Obayashi's Quality Assurance (QA) program that the NRC inspection team did not review. Therefore, Obayashi must extend its review, where applicable, beyond the specific examples identified by the NRC inspection team and apply corrective actions, as appropriate." In your response to IR 99901409/2011-201, Obayashi did not address the impact of these issues on the overall QA program implementation and effectiveness (i.e., extent of condition). In addition, Obayashi failed to identify those aspects of its QA program for which it extended its review beyond the specific examples of the deficiencies identified by the NRC inspection team, the extent of its review, any additional deficiencies identified, and the corrective actions implemented.
Obayashi Response	After receiving the NRC Inspection Report, Westinghouse issued a Stop Work Order (SWO) to Obayashi on September 26, 2011. All Obayashi deliverables to date were reviewed by Westinghouse to determine their acceptability. Obayashi is performing a gap analysis between our current QA program (P-35) and 10 CFR Part 50 Appendix B, Reg. Guide 1.28 Rev. 3 and ASME NQA-1 1994 as a whole. We will understand and identify the deficiencies of our current QA program (P-35) using the above analysis. After which, we will generate and fully implement a new QA program by March 2013 which will meet all applicable requirements. During the interim period (of about one year), Obayashi activities for the AP1000 design are performed and controlled under the WEC QA program. The Westinghouse Supplier Quality Oversight Asia group is performing periodic surveillance of Obayashi to ensure compliance with the PQP. WEC is utilizing Obayashi Engineers working and trained under the Westinghouse Quality Program as described by a Project Quality Plan. On December 20, 2011 the SWO was lifted on the basis that all work that Obayashi is performing for WEC is performed under this Project Quality Plan.

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2. NON 99901409/2011-201-03 (RAI, December 20, 2011)

	Description
NRC Statement	Finally, your response did not adequately address NON 99901409/2011-201-03 as it relates to correctly implementing the provisions of the American Concrete Institute (ACI) 349, "Code Requirements for Nuclear Safety-Related Concrete Structures & Commentary." In your response you stated that the design methodology for designing a shear wall (i.e., Wall 7.3) as a corbel was re-affirmed with Westinghouse Electric Company and that the applicability of ACI 349 provisions relating to similar design methodology has been verified and confirmed acceptable. Please provide further clarification as to how the design methodology was reaffirmed, verified, and confirmed to be acceptable. In particular, provide justification that the complex state of in-plane shear stress, due to intercepting floors and walls, can be idealized as a simple corbel element, and that in-plane shear stresses can be averaged over the entire 60-ft height of the wall. Please recall that during the inspection, the inspection team was informed that Obayashi was going to revert to an earlier version of the calculation, which did not design the wall as a corbel as described in Section 3 of the inspection report.
Obayashi Response	The design policy (as Corbel design) was mutually decided and agreed between WEC and Obayashi at the beginning of Wall-7.3 design. During the NRC inspection Westinghouse had informed the NRC team that it may revert to the design evaluation approach used in an earlier version of the calculation. However, the NRC comment on this issue in the inspection report dated November 3, 2011 gave an impression that NRC had accepted our design approach *("The NRC inspection team evaluated this misapplication* of *ACI-349 and determined that it was not* of *high safety significance due to the high degree* of *redundancy. In addition, the NRC inspection team verified that cracking* of *the particular shear* wall *will not lead to a reduction in lateral resistance* of *the auxiliary building or shield building')*. Obayashi is contracted to support WEC on an as needed basis. Work packages are assigned to Obayashi based on various considerations; such as, the availability of resources at WEC Headquarters and at Obayashi Tokyo office, and the priority of completion of various tasks. After receiving the NRC Inspection Report, Westinghouse had issued a 'Stop Work Order' to Obayashi effective mid- December. At that time it was decided by Westinghouse that the design calculation for Wall 7.3, using the evaluation approach used in an earlier version of the calculation (as discussed with the NRC), would be prepared by Westinghouse.