



**SUMITOMO METAL INDUSTRIES, LTD.**  
**PIPE & TUBE COMPANY      STEEL TUBE WORKS**

TOKYO HEAD OFFICE  
8-11, Harumi 1-Chome  
Chuo-ku, Tokyo, 104-8610

1, Nishino-cho, Higashi-Mukojima  
Amagasaki, 660-0856 Japan

Phone +81-6-6411-7616  
Fax +81-6-6411-7612

Attention : United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Ref. No. SMI-AQA-9041 Rev. 0

Docket No. : 99901384

Date: 16 December, 2009

NRC Inspection Report No. 99901384/2009-201

CC. Mr. Juan PERALTA

Chief Quality and Vendor Branch 1  
Division of Construction Inspection and Operational Programs,  
Office of New Reactors

Subject : Reply to Notice of Nonconformance(99901384/2009-201-01)

This letter is our response to the referenced NRC Inspection Report No. 99901334/2009-201 received on November 17, 2009, Japan time.

I. Nonconformance raised by NRC

Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that "the effectiveness of the control of quality by contractors and subcontractors shall be assessed by the applicant or designee at intervals consistent with the importance, complexity, and quantity of the product or services."

Section 6, "Control of Purchased Material and Services," of the Sumitomo Quality Assurance Manual (QAM), QA3700, Revision 36, dated October 1, 2008, describes the measures established by Sumitomo to ensure that purchased materials and services conform to applicable requirements. Paragraph 6.3.3(2) of the QAM states, in part, that audits or performance assessments of vendors and subcontractors shall be performed to confirm that the source material or services continue to meet the specified requirements.

Purchase Orders 2563401-KA-S2HO2 and 2564001-KA-S3HO2 from Mitsubishi Heavy Industries, Ltd., for steam generator tubes for the San Onofre Nuclear Generating Station required, in part, that the tubes be manufactured in accordance with Electric Power Research Institute (EPRI) Technical Report 016743-V2R1, "Guidelines for PWR Steam Generator Tubing Specifications and Repair," Revision 1, dated April 14, 1999 (EPRI technical report).

Paragraph 5.1 of the EPRI technical report states that "red lead-graphite-mineral oil or molybdenum disulfide lubricants shall not be used, i.e., these materials are prohibited from contact with the tube material at any time. Metallic lead, mercury, cadmium, or other low melting temperature metals or alloys are also prohibited from contact with the tube material at any time."

JE09



**SUMITOMO METAL INDUSTRIES, LTD.**  
**PIPE & TUBE COMPANY    STEEL TUBE WORKS**

Contrary to the above, the audits and performance assessments conducted by Sumitomo did not verify that Amagasaki Kinzoku Kogyo Kyogyo Kumiai, a supplier of machining services, had identified and analyzed all materials that come in contact with the steam generator tubes while undergoing cutting, boring, and machining operations.

Consequently, Sumitomo has not adequately verified that Amagasaki Kinzoku Kogyo Kyogyo Kumiai implemented controls needed to demonstrate that the prohibited materials listed in the EPRI technical report did not come in contact with the tube material.

This condition was identified as Nonconformance 99901384/2009-201-01.

**II. Sumitomo's Reply**

**1. The reason for the Nonconformance**

SMI had interpreted the word "the tube materials" in the paragraph 5.1 of the EPRI technical report as "tube shape materials" and had considered that the requirements of the EPRI technical report had not been applicable to the billets.

**2. Corrective Steps**

**(1) The corrective steps that have been taken and the results achieved**

Sumitomo Metal Industries, Ltd. (SMI) analyzed the lubricants used by Amagasaki Kinzoku Kogyo Kyogyo Kumiai and confirmed that the lubricants did not contain any of the prohibited materials specified in the EPRI technical report.

In addition, SMI obtained the conclusive evidence from the lubricants makers that proved that the lubricants did not contain any of the prohibited materials specified in the EPRI technical report.

**(2) The corrective steps that will be taken to avoid noncompliance**

SMI will stipulate our subcontractor (Amagasaki Kinzoku Kogyo Kyogyo Kumiai) with our purchasing specification that the prohibit materials will not come in contact with the tube materials.

**3. The date when our corrective action will be completed**

Remaining corrective action will be completed by January 31, 2010.

Best regards,

Satoshi Kureishi

MANAGER, QUALITY ASSURANCE SECTION