

AUDIT REPORT

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION IV

Report No. 99900615/78-01

Program No. 44103

Organization: The American Society of Mechanical
Engineers
345 East 47 Street
New York, New York 10017

Dates of Audit: August 7-10, 1978

Inspector(s)

R. H. Brickley

R. H. Brickley, Principal Inspector, Vendor
Inspection Branch

8/18/78
Date

Other Personnel
(Observer)

R. H. Brickley
for

J. G. Spraul, Nuclear Engineer, NRR:QAB

8/18/78
Date

Reviewed by:

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8-22-78
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Approved by:

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8-23-78
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Summary

Audit Conducted: August 7-10, 1978 (99900615/78-01)

Areas Audited: The American Society of Mechanical Engineers in the areas of survey reports, response to inquiries, qualifications of consultants, and survey team management. The audit involved twenty-five (25) inspector-hours on site by one NRC inspector.

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DETAILS SECTION

A. Persons Contacted

- *J. Ling, Senior Nuclear Engineering Administrator
- *A. A. Spadafino, Manager, Certification

*Denotes attendance at exit interview.

B. Surveys

The inspector selected nine (9) companies from the July 1978, issue of the ASME publication "Companies Holding Nuclear Certificates of Authorization" for an audit of survey records. Of these companies all had Certificates of Authorization for NPT, seven (7) for N, three (3) for NA, and one for NV. The various scopes of work included vessel-containment system, pump, safety valve, line valve, storage tank, piping systems, piping subassembly, and component supports. One of the companies was a new applicant for a Certificate of Authorization (NA & NPT) for Class 3 piping systems and piping subassemblies. In this case the survey was conducted by a representative of the National Board, Authorized Inspection Specialist, and Authorized Inspector. Effective in July of this year the Subcommittee on Nuclear Certification (SCNC) added the requirement for an ASME Consultant on Class 3 survey teams.

The records of surveys that were examined consisted of the application for a survey for issuance of a Certificate of Authorization (new or renewal), ASME notification to the applicant of the survey dates etc., Survey Scope Sheet, survey report, SCNC letter ballot on the applicant, AIA letter reporting the results of any required follow-up, and extracts of any pertinent SCNC meeting minutes.

The survey reports were found to contain the applicant's name and address, dates of survey, team members and observers, a schedule of events, the type of survey (new or renewal), type of certificate applied for (N, NA, NPT, etc.), deficiencies identified during manual review and corrective action taken or committed, deficiencies identified during the implementation portion and corrective action taken or committed, observations and recommendations, and a place for the Team Leader's signature. The following items were observed:

1. The survey team reports indicated that the applicant's QA program was properly evaluated for both content and implementation. Some of the recent reports examined indicated that the team followed

Appendix II (Nuclear Survey Team Guides) to the SCNC Manual of Operations. Subsection 1.2 of this manual indicates that these guides are SCNC policies for the operation of surveys.

2. The deficiencies identified by the survey team were either corrected at that time or prior to issuance of a certificate. In the latter case the Authorized Inspection Specialist is required to verify that all corrective action had been completed and so certify by letter to the ASME. However, during the examination of a report on a renewal survey conducted late last year, the inspector noted that the Team Leader had made the following observation:

A major reason for concern in one area was because similar findings were reported in the renewal survey conducted in 1974. The team recommendation at the time was for renewal contingent upon a report from the AIA Inspection Specialist confirming that the required records had been obtained. The findings of this survey indicate that all required records were not obtained.

The examination of survey records, including SCNC meeting minutes, and discussions with ASME representatives indicate that there was no action taken with respect to the AIA Certification of the corrective action taken on the 1974 survey findings.

3. The results and team recommendations of all surveys that were examined had been submitted to the SCNC members for approval. In discussions with the ASME staff and review of Appendix IV (Ballot Procedures) it was revealed that ballots not received within thirty (30) days are considered as approved for issuance of certificates and interim letters. The ASME staff contacts by telephone those members whose ballots had not been received and verifies their approval/disapproval prior to closing the ballot.
4. Over 50 percent of the survey reports examined did not have the signature of the Team Leader. The Team Leaders work out of their homes and send a handwritten report to the ASME staff for typing. The final report is not returned to him for review and signoff.

C. Response to Inquiries

The inspector examined six (6) records maintained on inquiries relating to obtaining certificates of authorization. The ASME staff has a standard package that they forward consisting of a

brochure (Information for Holders of ASME Certificates of Authorization and Code Symbol Stamps), an application, Survey Control Sheet, a certification that the Certificate and Stamp will be used only in the manner prescribed in the Boiler and Pressure Vessel Code, Form N-B (Scope of Work Requested by Applicant), Form N-C (Code Document Statement), and a Presurvey Questionnaire. These records indicated that a response had been made to all inquiries.

D. Qualifications of ASME Consultants

Discussions with the ASME staff revealed that the following requirements have been established for the ASME to contract with an individual for consultant services.

1. Survey Team Members

- a. A Bachelor of Science or Engineering degree from an accredited college or university, or
- b. A minimum of ten (10) years in several aspects of construction or installation including QA or Management experience (e.g. design, quality control, welding, or nondestructive examination) as required to be included in an ASME Code QA Program. In highly specialized areas, the experience requirements may be reduced by not more than 50 percent with consideration given to advanced education.
- c. Prior to being accepted and before each contract renewal, the individual must provide a certification from a physician acceptable to ASME that he is of sound health such that he can adapt to extensive travel and exertion as associated with performance of duties as a survey team member.
- d. Demonstration of knowledge of the Code requirements and the ability to determine compliance with them by participation on a minimum of two (2) surveys as a trainee. The Team Leader on these surveys submits a written evaluation of the applicant to ASME.
- e. Acceptance by the Special Committee on Codes and Standard Consultants of the Policy Board, Codes and Standards based on the resume and evaluation reports.

2. Survey Team Leader

To qualify as a Team Leader an individual must be a team member and have demonstrated the following:

- a. Extensive knowledge of ASME Code requirements; Code philosophy and administrative procedures; and interrelationship of ASME, National Board, Jurisdictional Authorities and Authorized Inspection Agencies.
- b. Extensive knowledge and experience in several areas required to be included in an ASME Code QA Program.
- c. Ability to present ASME Code QA Program requirements to industry management.

3. Consultant Qualification Dossiers

The inspector examined the qualification dossiers of four (4) team leaders and four (4) team members selected from those participating in the surveys referred to in paragraph B above. The examination of these records revealed the following:

- a. Some of the dossiers did not contain all of the records indicated in paragraph D.1 above e.g. there were no records on one individual, no medical certificates on three (3) other individuals and, no trainee evaluation records on two (2) others. These cases involved individuals that have been under contract with ASME for several years.
- b. Excluding the individual that had no records, six (6) exceeded the requirements of paragraphs D.1.a and D.1.b. above and one exceeded the requirements of paragraph D.1.b above.
- c. There was no evidence to indicate that the information contained in resumes had been verified. Discussions with the ASME staff indicated that they did not perform a verification of education and experience; however, each of the individuals were known by a staff member.
- d. None of the records that were examined indicated that individuals had received any training other than that indicated in paragraph D.1.d above. Discussions with the ASME staff

indicated that additional training had been conducted by their Senior Consultant but they did not know if he had maintained any records.

E. Survey Team Management

In addition to the documents examined in B, C, and D above the inspector also examined the survey schedule and team assignment for January thru October 1978 and the Conflict of Interest Statement submitted by sixteen (16) of the consultants. The examination of these records and discussions with the ASME staff revealed the following:

1. The selection of team members appeared to match member qualifications to the type of work being performed by the applicant.
2. The Conflict of Interest Statement (CIS) submitted each year by the consultant lists his current consulting contracts, previous employment, and other possible conflicts (undefined). The individuals are not required to identify their financial holdings in any company performing Code work. An ASME consultant may have contracts with other companies in any area other than QA. These statements are used to avoid a conflict of interest in assignments. Five (5) years must lapse before a consultant may participate in a survey of a former employer. The inspector compared the January thru October 1978 schedules with the CIS of two (2) consultants. There was no apparent conflict of interest in their survey assignments.
3. All consultants are on a one year contract that commits them to a minimum of four (4) surveys per month (average length of a survey is three (3) days including travel). The assignments of three (3) consultants were examined for the period January thru October 1978. Of the three (3) examined one appeared to have periods of constant activity (January 11 thru February 10, April 17 thru April 26, and July 10 thru July 28).
4. Surveys are scheduled so that all required actions are completed prior to the expiration of the current Certificate. When a resurvey is required the expiration date is extended to allow its completion.

F. Follow-up Items

1. The ASME does not always take action on apparent deficiencies in AIA activities identified during surveys. (paragraph B.2)
2. Responses to SCNC letter ballots that are not received within the established period are considered as approved for issuance of certificates and interum letters. (paragraph B.3)
3. Survey reports are not required to be signed. (paragraph B.4)
4. Qualification records (resumes, medical certificates, and trainee evaluations) on senior employees (consultants) have not been maintained. (paragraph D.3.a.)
5. The ASME does not verify the education and experience of consultant applicants. (paragraph D.3.c.)
6. Training records, other than survey participation, have not been maintained i.e. subject, duration, instructor and list of attendees. (paragraph D.3.d.)
7. The Conflict of Interest Statement does not require consultants to identify their financial holdings in any company performing Code work. (paragraph E.2.)

G. Exit Interview

An exit interview was held with management representatives on August 10, 1978. In addition to those individuals indicated by an asterisk in A. above those in attendance were:

J. Cevoli, Engineering Administrator
J. A. Russo, Nuclear Administrative Assistant
W. J. Woollacott, Director, Nuclear Codes and Standards

The inspector discussed the audit and the items identified in this report as follow-up items. The inspector stressed that these were for the NRC Review Committee and required no response or other action by ASME.

Subsequent to the audit one of the items identified at the exit interview for follow-up by the NRC Review Committee was resolved and a new item, F.7 above was identified. A. A. Spadafino, Manager, Certification was notified of this change on August 18, 1978, by the Principal Inspector.