



**ASME Standards Technology, LLC
Request for Proposals**

RFP-ASMEST-09-04revb

BPVC#4 – International Materials Quality Control Systems Review

Date Posted: November 24, 2008

Proposal Due Date: January 5, 2009

1. Summary

ASME Standards Technology, LLC is soliciting proposals for technical investigation of International materials quality control systems review with recommended good practices and minimum mandatory Codes and Standards requirements in non-nuclear pressure equipment applications.

This project has resulted from ASME Pressure Technology Codes & Standards (PTCS) Standards Committee requests to identify, prioritize, and address technology gaps in current or new PTCS Codes, Standards and Guidelines. This project is one of several included for ASME FY09 funding and intended to establish and maintain the technical relevance of ASME codes & standards products. An overview of the annual ASME PTCS project selection process is included at <http://files.asme.org/STLLC/10192.pdf>.

2. Scope of Work

a. Scope Description

The current ASME non-nuclear pressure equipment material system places trust in the material supplier to control quality. If the material has the correct marking and/or an MTR that meets the minimum mandatory requirements of the material specification, the material can be used in the ASME non-nuclear pressure equipment safety Codes. However, in today's international material sellers' market, there have been several instances where this philosophy has resulted in premature shop and field failures. Examples include multi-piece "weld neck" flanges that crack during assembly, stainless steel flanges of unacceptable chemistry that crack in service, creep-strength enhanced low alloy steels that apparently were not properly heat treated at the mill, ERW tubes that leak during hydro, studs that separate during assembly, and boiler furnace failures due to excessive plate laminations.

The scope of this project is to review and summarize the various international systems of material control. Examples should include:

- Supplier approval (such as the ASME QSC system for nuclear materials and the Indian IBR, Malaysian FMA, and others' "well known" material manufacturer lists in their regulations);
- Supplier 3rd party witness (like, in some instances, the Indian IBR and PED systems);
- Supplier audit (like ASME Section III, NCA-3800).
- Survey other best practices around the world for material purchase and control.

- Conduct a survey of manufacturers, purchasing agents, and Authorized Inspection Agencies to get an accurate picture of problems industry faces in purchasing materials.
- Document examples where material that was purchased was found to not meet the specifications or fraudulent.

The focus should include not only final base metal (plate, forging, seamless pipe & tube), but also welded product (pipe, tube and fittings to a material specification), weld filler metal, and source material (such as bar for conversion to fasteners, coil for conversion to plate, ingot/billet for conversion to forging, etc.). Consideration shall be given to suppliers (warehouses, brokers) and processors (coil de-coilers, material heat treaters prior to the Certificate Holder, and head forming organizations) in addition to material manufacturers.

Minimum mandatory Code requirements and recommended good practices should consider quality control in purchasing documents, supplier discrimination, vendor audit/approval/accreditation, marking and certification review, and purchaser check analysis (chemical non-destructive positive material identification (PMI) [using the recommendations of the Task Group on PMI], hardness, bulk chemical analysis, mechanical property sampling, and NDE).

Consideration should be considered to a tiered system of risk depending on the consequence of failure (pressure-volume) and likelihood of failure (advanced ferritics in elevated temperature service vs. carbon steel at room temperature); advanced corrosion-resistant alloys in utility or chemical process industries vs. carbon steel in benign air or water environments.

The project scope includes making recommendations on how to assure the quality of materials.

b. Deliverable

The project deliverable shall be a technical report provided as an electronic file in MS Word format. The report shall review and summarize the various international systems of material control. A report template and style guide will be provided by ASME ST-LLC. The report outline shall be approved by ASME ST-LLC. One peer review cycle is anticipated and modifications required to the report, as a result of the review cycle, are the responsibility of the contractor awarded the contract.

c. Schedule

Investigators shall submit a schedule with their proposal describing the major milestones and reporting schedule. ASME ST-LLC desires that the final deliverable be provided no later than June 30, 2009.

d. Reporting:

Progress reports shall be provided at ASME BPVC code week meetings.

e. Travel Requirements

Current travel is anticipated to present project results to ASME C&S committees during ASME BPVC code week meetings. Travel expenses shall be reimbursed, within the project budget, per the project Travel Policy.

f. Budget

The total budget is approximately \$21,750.

3. Applicant Eligibility Requirements

ASME ST-LLC is seeking proposals from all qualified organizations including, but not limited to, engineering firms, consultants, academic institutions and Federally Funded Research and Development Centers. In addition to relevant technical qualifications and experience, applicants must possess an understanding of relevant ASME Codes and Standards.

4. Basis for Selection and Award

Selection of a proposal by ASME ST-LLC will be achieved through a process of evaluating and comparing the relative merits of the applicant's complete responses. This process reflects ASME ST-LLC's desire to accept an application based on its potential in best achieving program objectives, rather than solely on evaluated technical merit or cost. Evaluation criteria includes, but is not limited to, the following:

- Technical capabilities
- Experience
- Price
- Schedule
- Agreement with Terms and Conditions

ASME ST-LLC reserves the right to award, in whole or in part, any, all, or none of the applications submitted in response to this solicitation.

5. Contract Terms and Conditions

A fixed-price contract is preferred, however labor hour and expenses-type proposals will also be considered. Draft terms and conditions are attached. The final contractual terms and conditions will be negotiated between ASME ST-LLC and the selected applicant(s) following award.

ASME ST-LLC shall provide required access to codes and standards and other technical references necessary for performance of the work.

6. Submission Requirements

- a. Proposal Due Date: Proposals and amendments of proposals must be received by January 5, 2009. Applicants are encouraged to transmit their proposal well before the deadline.
- b. Anticipated Selection and Award Date: It is anticipated that selection and award will be made within 2 weeks of the proposal due date.
- c. Application Preparation Costs: This solicitation does not obligate ASME ST-LLC to pay any costs incurred in the preparation and submission of proposals or in making necessary studies or designs for the preparation thereof or to acquire, or contract for any services.
- d. Application Clarification: ASME ST-LLC reserves the right to require proposals to be clarified or supplemented to the extent considered necessary. The award may be made after few or no exchanges, discussions or negotiations. Therefore, all applicants are advised to submit their most favorable application to ASME ST-LLC. ASME ST-LLC reserves the right, without qualification, to reject any or all proposals received in response to this solicitation and to select any proposal, in whole or in part, as a basis for negotiation and or award. ASME ST-LLC reserves the right to modify or cancel this solicitation. All questions

relating to the solicitation must be submitted to the contact below. Any amendments to the solicitation will be posted on the ASME ST-LLC web site (http://stllc.asme.org/Requests_Proposals_RFPs.cfm).

- e. **Treatment of Proprietary Information:** A proposal may include technical data and other data, including trade secrets and/or privileged or confidential commercial or financial information, which the applicant does not want disclosed to the public or used by ASME ST-LLC for any purpose other than proposal evaluation. To protect such data, the applicant should specifically identify the data to be protected.

f. **Proposal Preparation and Submittal Instructions:**

ASME ST-LLC may form a committee of subject matter experts to evaluate the technical qualifications of applicants. To help facilitate this evaluation, responses should include two separate documents, a Technical Proposal, and a Financial Proposal.

1. Technical Proposal

- (a) Provide organization name and contact information.
- (b) Provide evidence of technical capabilities: the credentials, qualifications, capabilities, and experience of individuals and the organization.
- (c) Describe approach to accomplishment of the Scope of Work.
- (d) Confirm agreement with the Scope of Work for the specified task(s)

2. Financial Proposal

- (a) Provide a fixed price quotation or an hourly billing rate quotation and estimated project maximum.
- (b) Confirm agreement with the draft Terms and Conditions, or state any specific exceptions.

3. Submit Technical and Financial Proposals via e-mail to the ASME ST-LLC contact below.

4. Responses must be received on or before the deadline.

7. ASME Standards Technology, LLC Contact Information:

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