ASME Standards Technology, LLC
REQUEST FOR PROPOSALS
RFP No. 16-05

Project Number:	STEX-0155
Project Title:	Enhanced Data and Recordkeeping Requirements for Effective Pipeline Integrity Management in ASME B31.8 and B31.8S
Solicitation Date:	21 March 2016
Proposal Due Date:	21 April 2016 **(Extended to April 28, 2016)**

1 Summary

ASME Standards Technology, LLC (ASME ST-LLC) is soliciting proposals for the referenced project. The project results from a recommendation that ASME pipeline codes and standards provide guidelines to industry to address, reduce and establish practices in data gap uncertainty in pipeline integrity management practices.

This Request-for-Proposal ("RFP") and all open RFPs are posted on the ASME ST-LLC webpage: (http://stllc.asme.org/ST-LLC_RequestsProposals.html)

2 Background

Currently, a gap exists in the natural gas pipeline industry to produce "traceable, verifiable and complete" records of pipelines that have not had a maximum allowable operating pressure established through prior hydrostatic testing in regards to the National Transportation Safety Board ("NTSB") recommendation P-10-2.1[1] The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration ("PHMSA") issued advisory ADB-2011-01 to address this gap, however, with no existing clear guidance, ad hoc solutions have been developed by industry.[2] In many cases, traceable records may or may not exist due to extenuating circumstances, or a non-requirement to retain such records, or both. Similarly, verifiable records (whereby data is confirmed by other separate documentation) may or may not exist as existing regulatory or ASME Code language does not specify agreement between multiple data sources. Complete records are finalized by signature or date.

There is an immediate need by the pipeline industry to address inadequate guidance to meet public and regulatory expectations for validating allowable operating pressure. Without updated and adequate guidance, the pipeline industry incurs untold costs, may jeopardize delivery obligations and potentially pose public safety hazards.

[1] 1 NTSB "Safety Recommendation P-10-2, to Pacific Gas and Electric", January 3, 2011.
[2] PHMSA Advisory Bulletin, "Establishing Maximum Allowable Operating Pressure or Maximum Operating Pressure Using Record Evidence, and Integrity Management Risk Identification, Assessment, Prevention, and Mitigation", ADB-2011-11.

Scope of Work

2.1 Summary

The Independent Contractor shall identify ways in which ASME pipeline codes and standards (B31.4, B31.8, and B31.8S) can provide guidance to industry to more effectively 1) handle data gap uncertainty in pipeline integrity management practices, 2) take appropriate steps to reduce data gap uncertainty, and 3) establish practices that can prevent data gap uncertainty going forward. See Attachment 1 for full Scope of Work.

2.2 Deliverables

The project deliverables shall be a report outline (including table of contents), draft report and a final report providing qualitative recommendations for revisions to B31.8, B31.4, and B31.8S based on the findings as noted in the project background and scope. The Final Report shall provide a basis for the development of an ASME Standards Technology Publication ("STP").

All written deliverables shall be provided as an MS Word file that is formatted in accordance with the ASME Style Guide. Several peer review cycles are anticipated, and modifications required to the draft as a result of these review cycles, shall be the responsibility of the respondent awarded the contract. Peer review should include members of the ASME B31.8 Section Committee as well as individuals in the gas pipeline industry.

2.3 Schedule

The respondent shall submit a schedule with its proposal that provides major milestones for draft and final deliverables and a reporting schedule. The final deliverable shall be completed no later than April 30, 2017.

2.4 Reporting

The respondent shall provide a brief status report on a monthly basis, via email, to the ASME ST-LLC project manager identified herein. Progress reports shall be presented at ASME BPVC Section VIII Committee meetings, as requested by ASME ST-LLC.

3 Respondent Eligibility Requirements

ASME ST-LLC is seeking proposals from all qualified organizations including, but not limited to, engineering firms, independent consultants, academic institutions, and federally funded research and development centers. In addition to relevant technical qualifications and experience, respondents must possess an understanding of relevant ASME codes and standards.

4 Basis for Selection and Award

ASME ST-LLC will select the winning proposal by evaluating and comparing the merits of each respondent's complete proposal. This process reflects ASME ST-LLC's desire to select application proposal based on its potential to achieve program objectives, rather than solely on evaluated technical merit or cost. Evaluation criteria include, but are not limited to, the following:

- Respondent's technical capabilities
- Respondent's applicable experience
- Proposal price
- Project schedule
- Any exceptions to ASME ST-LLC's standard agreement

ASME ST-LLC reserves the right to award, in whole or in part, any, all, or none of the proposals/respondents answering this solicitation.

5 Contract Terms and Conditions

The contract to perform the Scope of Work shall be fixed-price. A form of ASME ST-LLC's standard agreement applicable to this Scope of Work is attached as Attachment 2 to this RFP.

ASME ST-LLC will provide access to applicable codes, standards, and other technical references as needed to perform the Scope of Work.

6 Submission Requirements

6.1 Proposal Due Date

Proposal must be submitted by 21 April 2016 **(Extended to April 28, 2016)**. Respondents are encouraged to transmit its proposal well before this deadline. Requests for extra time must be sent by 15 April 2016 to the contact listed in Section 8 of this RFP.

ASME ST-LLC intends to select the winning proposal within three weeks of the proposal deadline.

6.2 Proposal Preparation Costs

Proposal costs shall be borne by the respondent. This solicitation does not obligate ASME ST-LLC to pay any costs incurred in the preparation and submission of the proposal, in making necessary studies or designs for the preparation thereof, or to acquire, or contract for any services.

6.3 Proposal Clarification

ASME ST-LLC reserves the right to request clarification of the proposal and/or supplemental information. The award may be made after few or no exchanges, discussions, or negotiations. Therefore, all respondents are advised to submit its 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 listed in Section 8 herein. Any amendments to the solicitation will be posted on the ASME ST-LLC website previously referenced.

6.4 Treatment of Proprietary Information

A proposal may include technical and/or other data, including trade secrets and/or privileged, confidential commercial or financial information, which the respondent 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 respondent should specifically identify the data or information to be protected.

6.5 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, proposals should be separated into two separate documents: (1) a Technical Proposal; and (2) a Financial Proposal.

6.5.1 Technical Proposal contents must include:

1.1.1.1. Provide organization name and contact information.

1.1.1.2. Provide evidence of technical capabilities: credentials, qualifications, capabilities, and experience of individuals and the organization.

1.1.1.3. Describe approach to accomplish the Scope of Work (refer to Section 3).

1.1.1.4. Demonstration of agreement with the Scope of Work (refer to Section 3).

6.5.2 Financial Proposal contents must include:

1.1.1.5. Provide a fixed-price quotation.

1.1.1.6. Confirm agreement with the form of agreement attached herein, or state any requested exceptions to same.

6.5.3 The respondent must submit the Technical and Financial Proposals files via e-mail to the ASME ST-LLC contact identified in Section 8 of this RFP. Responses must be received on or before the proposal due date identified in Section 7.1 of this RFP.

7 ASME Standards Technology, LLC Contact Information

All correspondence regarding this RFP is to be directed to the following person:

Ms. Brandy Smith
Project Manager
ASME Standards Technology, LLC
Two Park Avenue
New York, NY 10016
Telephone: 212-591-8705
E-mail: smithb@asme.org

BACKGROUND:

Currently, a gap exists in the natural gas pipeline industry to produce "traceable, verifiable and complete" records of pipelines that have not had a maximum allowable operating pressure established through prior hydrostatic testing in regards to the National Transportation Safety Board ("NTSB") recommendation P-10-2.[3] The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration ("PHMSA") issued advisory ADB-2011-01 to address this gap, however, with no existing clear guidance, ad hoc solutions have been developed by industry.[4] In many cases, traceable records may or may not exist due to extenuating circumstances, or a non-requirement to retain such records, or both. Similarly, verifiable records (whereby data is confirmed by other separate documentation) may or may not exist as existing regulatory or ASME Code language does not specify agreement between multiple data sources. Complete records are finalized by signature or date.

There is a need by the pipeline industry to address inadequate guidance to meet public and regulatory expectations for validating allowable operating pressure.

SCOPE:

The Independent Contractor shall identify ways in which ASME pipeline codes and standards (B31.4, B31.8, and B31.8S) can provide useful guidance to industry to more effectively:

Item 1 -- Address data gap uncertainty in pipeline integrity management practices;

Item 2 -- Reduce data gap uncertainty in pipeline integrity management practices; and

Item 3 -- Recommend best practices to prevent data gap uncertainty in pipeline management practices.

Item 1. Address data gaps in pipeline integrity management practices:

The problem of uncertainty in existing data is recognized in B31.8-S, §5.6.2 (the "Code") which states "The operator should choose default values that conservatively reflect the values of other similar segments on the pipeline or in the operator's system. These conservative values may elevate the risk of the pipeline…"; however the Code gives no guidance as to how to select appropriate default values. Selecting inappropriate default values can have profound effects on assessing risk. Excessively "conservative" default assumptions populates risk input data and risk results with unrepresentative values, overestimates the real risk, and could misdirect attention to false threats and away from real threats. Risk cannot be reliably gauged using wrong or unrepresentative data.

- To address this problem, the Independent Contractor shall identify and prepare guidance for a user developed decision process or alternatively a prescriptive process that will promote making appropriate reasonable default values with appropriate adjustments to recognize higher uncertainty when using B31.4, B31.8, and B31.8S.

Item 2. Reduce data gaps in pipeline integrity management practices:

In order to reduce uncertainty, defaulted data could potentially be confirmed or revised as new information is acquired through data mining in the field. Examples of field data mining could include in-situ hardness testing of pipe to estimate mechanical properties, in-situ spot checks of wall thickness or identification of changes in wall thickness in in-line inspection (ILI) data, or in-situ spot checks to confirm seam type. Sampling requirements should be specified depending on whether the objective is to determine an unknown attribute or confirm what an operator already suspects.

- To address this problem, the Independent Contractor shall identify and prepare guidance, for example, in the form of decision trees for exploratory or confirmatory field data mining to resolve specific data concerns, along with sampling goals with regard to B31.4, B31.8, and B31.8S.

Item 3. Recommend best practices in pipeline integrity management practices:

Future uncertainty can be minimized by enhanced recordkeeping practices going forward, and how this can be accomplished will likely differ between new construction and existing facilities. Precedents do exist in other ASME standards, including ASME B&PV Section III (Nuclear Power Plant Components), Subsection NCA, General Requirements, Article NCA-4134.17 “QA Records”, and ASME B&PV Section XI (In-Service Inspection of Nuclear Power Plant Components), Article IWA-6000 “Records and Reports”. BPV III, NCA-4134.17 (1 page) presents a table of Lifetime QA records and a table of Nonpermanent QA records. BPV XI, IWA-6000 (2 pages), discusses owner and contractor records responsibilities; maintenance of records; reproduction, digitizing, and microfilming; construction records; in-service inspection records, and repair/replacement activity records.

- To address this problem, the Independent Contractor shall review these provisions and those found in other ASME and non-ASME codes and standards and recommend provisions that may offer improvements for similar circumstances involving pipelines.

Prior to pipeline regulations and modern evolutions of the ASME Code, there were no mandated levels of data quality, which suggests that the prevailing levels of quality in present data as a result of historical practices are no longer viewed by the public or regulators as adequate. Data quality requirements set forth by the Code today are overly general and are inadequate for the future. The issue then is what can ASME do to enable an operator to evaluate and assure data quality? Other industries rely on data for risk assessment, including environmental sciences, aviation, policy economics, and banking. It may be possible to define data quality attributes such as accuracy, completeness, consistency, precision, reliability, temporality, uniqueness, and validity,[5] which go well beyond the NTSB’s suggested “traceable, verifiable, and complete”.

- To address data gap uncertainty, the Independent Contractor shall examine what B31.4, B31.8 and B31.8S codes can do to enable an operator to evaluate and assure data quality.

- The Independent Contractor shall review methods that other industries use to evaluate and manage data quality and identify approaches and best practices that may be implemented with pipelines.

Deliverables:

- The Independent Contractor shall prepare a report providing qualitative recommendations for revisions to B31.8, B31.4, and B31.8S based on the findings as noted in the previous scope of work. The Independent Contractor shall provide the report in phases: first as an outline, then as a draft report for review, then as a final report, noting that during the draft phases of the report, the report will be provided to a project-assigned ASME S&C Peer Review Group ("PRG") for review and comment, that the Independent Contractor shall reasonably incorporate such PRG comments, and that this PRG-review cycle may occur more than once depending on the nature and extent of the original comments and draft report(s). Periodic and regular meetings and/or teleconferences will be required. The Final Report shall provide a basis for the development of an ASME Standards Technology Publication ("STP").
- The Independent Contractor shall provide written deliverables as MS Word files that are formatted in accordance with the ASME Style Guide.
- As several peer review cycles are anticipated, the Independent Contractor shall modify its draft report(s) to incorporate the results of such review cycles, whereby such peer review will include members of the ASME B31.8 Section Committee, other individuals in the gas pipeline industry, and other individuals as recommended by ASME.

[3] NTSB "Safety Recommendation P-10-2, to Pacific Gas and Electric", January 3, 2011.
[4] PHMSA Advisory Bulletin, "Establishing Maximum Allowable Operating Pressure or Maximum Operating Pressure Using Record Evidence, and Integrity Management Risk Identification, Assessment, Prevention, and Mitigation", ADB-2011-11.
[5] Piprani, B. and Ernst, D., "A Model for Data Quality Assessment".

ASME Standards Technology, LLC

Nonexclusive Independent Consultant Agreement

Standard Terms and Conditions

Enhanced Data & Record Keeping Requirements for Effective Pipeline Integrity Management in ASME B31.8 & B31.8S Report

This Agreement, dated as of [_____], is made between ASME Standards Technology, LLC ("ASME ST-LLC"), a New York not-for-profit corporation with its principal office at Two Park Avenue, New York, New York 10016 and [Independent Consultant TBD] (the "Independent Consultant").

W I T N E S S E T H:

WHEREAS ASME ST-LLC desires to engage the Independent Consultant to develop a report for identifying ways in which ASME pipeline codes and standards (B31.4, B31.8 and B31.8S) can provide guidance to industry to more effectively 1) handle data gap uncertainty in pipeline integrity management practices, 2) take appropriate steps to reduce data gap uncertainty, and 3) establish practices that can prevent data gap uncertainty going forward; and

WHEREAS the Independent Consultant agrees to accept such engagement and to perform the services hereinafter specified;

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements of the parties contained in this Agreement, it is agreed as follows:

1. Engagement. ASME ST-LLC hereby engages the Independent Consultant, on an as needed and nonexclusive basis, to perform the services defined in Annex 1 to this Agreement (the "Work").

2. Performance. The Independent Consultant agrees to perform the services set forth above. The Independent Consultant agrees to perform such services professionally and

to the best of its ability, to provide the services in an ethical manner, and to avoid conflicts of interest and any appearance thereof. It is understood that the Independent Consultant may obtain other consulting work and, as a result, may be unavailable, from time to time, to perform consulting services for ASME ST-LLC, but the Independent Consultant agrees to adhere to the ASME Policies on Conflicts of Interest and Ethics (http://stllc.asme.org/Policies.cfm). ASME ST-LLC will not set specific daily schedules. ASME ST-LLC will not provide tools, materials, supplies or equipment necessary for the Independent Consultant to perform the Work except for the necessary codes, standards, and procedures. Neither will ASME ST-LLC reimburse the Independent Consultant for the use of its tools, materials, supplies or equipment. The Independent Consultant shall not engage subcontractors to perform any portion of the Work without the written approval of ASME ST-LLC.

3. Fees. For all services to be rendered by the Independent Consultant to ASME ST-LLC, as required by ASME ST-LLC, the Independent Consultant will receive fees as specified in Annex 2 to this Agreement. It is understood and agreed that the Independent Consultant is performing services as an independent contractor. As a result, ASME ST-LLC will not withhold any tax, of whatever nature, from payments made by ASME ST-LLC to the Independent Consultant. The Independent Consultant is solely responsible for meeting federal, state, or local income tax liabilities. The total charges for all fees and expenses shall not exceed the contract value specified in Annex 2 to this Agreement.

4. Expenses. Expenses incurred by the Independent Consultant in connection with the Work shall be borne by the Independent Consultant as part of the total compensation for the Work.

5. Terms of Payment. The Independent Consultant shall submit associated invoices for acceptance by ASME ST-LLC prior to payment. Invoices shall be submitted following achievement of milestones specified in Annex 2 to this Agreement. Payment shall be 100 percent net due 30 days after receipt of an acceptable invoice from the Independent Consultant.

6. Benefits. The Independent Consultant is not eligible for, and will not receive, any benefits from ASME ST-LLC based on services performed under this Agreement.

7. Copyright and Ownership. The Independent Consultant agrees that ASME ST-LLC specially ordered and commissioned the Work as "work made for hire" as that term is defined in the United States Copyright Act (17 U.S.C. §101), and that for purposes of the copyright laws, ASME ST-LLC shall be deemed the "author" of the Work. If it is determined that the Work is not a work made for hire under the U.S. Copyright laws, then, as of the creation of the Work, the Independent Consultant hereby assigns exclusively and irrevocably to ASME ST-LLC all worldwide, present and future right, title and interest in the Work, including the copyrights and other proprietary rights existing in the Work (including all United States and foreign copyrights, all copyrights under any treaties, conventions, proclamations, or the like, and all extensions of such copyrights; all artistic and literary property rights; all moral rights; all rights to apply for or obtain any registrations for copyright in the Independent Consultant's name; and the right to sue and recover for any infringement of the Work). The Independent Consultant may not reproduce the Work in any form without ASME ST-LLC's prior written permission.

8. Indemnification and Hold Harmless.

a. Obligation of the Independent Consultant – The Independent Consultant shall indemnify, defend and hold harmless ASME ST-LLC and its officers, directors, employees and agents and each of them from any and all claims, actions, causes of action, demands, liabilities of whatsoever kind and nature including judgments, interest, attorney's fees, and all other costs, fees, expenses and charges which ASME ST-LLC, its officers, directors, employees, agents and each of them, may incur arising out of the negligence, gross negligence or willful or wanton misconduct of the Independent Consultant, its officers, directors, employees or agents.

b. Obligation of ASME ST-LLC – ASME ST-LLC shall indemnify, defend and hold harmless the Independent Consultant and its officers, directors, employees and agents and each of them from any and all claims, actions, causes of

action, demands, liabilities of whatsoever kind and nature including judgments, interest, attorney's fees, and all other costs, fees, expenses and charges which the Independent Consultant, its officers, directors, employees, agents and each of them, may incur arising out of the negligence, gross negligence or willful or wanton misconduct of ASME ST-LLC, its officers, directors, employees or agents.

9. Term. It is mutually agreed that the Independent Consultant will commence work on this project immediately upon execution of this Agreement, and continue until completion, estimated as on or about [Contract End Date TBD]. This termination date may be extended by mutual agreement, which must be confirmed in writing.

10. Termination. ASME ST-LLC shall have the right to terminate this agreement upon 14 days notice in writing to the Independent Consultant at any time that ASME ST-LLC shall in its judgment decide that such termination is in the best interests of ASME ST-LLC. Conversely, the Independent Consultant shall have the right to terminate this agreement upon 14 days' notice in writing to ASME ST-LLC at any time that the Independent Consultant shall in its judgment decide that such termination is in the best interests of the engineering profession. In the event of such termination, ASME ST-LLC shall pay the Independent Consultant on a pro rata basis for percent of work completed as determined by mutual agreement subject to the provisions of Sections 3 and 4 of this Agreement.

11. Force Majeure. The parties' performance under this contract is subject to acts of God, war, government regulation, terrorism, disaster, strikes, civil disorder, curtailment of transportation facilities, or any other emergency beyond the parties' control, making it inadvisable, illegal or which materially affects a party's ability to perform its obligations under this contract. Either party may terminate this contract for any one or more of such reasons upon written notice to the other party.

12. Trademark Usage. Independent Consultant may not use any of ASME ST-LLC's trademarks or other identifiers (including the ASME ST-LLC logo) in any manner without ASME ST-LLC's prior written approval or consent. ASME ST-LLC reserves

the right to review any approved use of its trademarks and to require changes in any further use, and Independent Consultant agrees to comply with those requirements.

13. Publicity Release and Public Affairs. The Independent Consultant shall not make without prior review and approval of ASME ST-LLC, any publicity release of any nature of general, non-technical information in connection with this Agreement. For purposes of this Agreement, general, non-technical information means any information concerning the existence of the Agreement, the identity of the parties, and the scope and general character of the research or technical activity**.**

14. Entire Agreement. This Agreement entirely supersedes, terminates, and replaces any and all prior agreements between the parties relating to the subject matter hereof and may not be amended except by an instrument in writing signed by both parties to this Agreement.

15. Notices. Any notices hereunder shall be given to the parties at their respective addresses set forth above by registered mail until a new and different address shall be established for either party on the basis of notice given to the other party.

16. Governing Law. This Agreement shall be subject to and governed by the substantive laws of the State of New York (without regard to its conflict of laws rules).

IN WITNESS WHEREOF, ASME ST-LLC has caused this Agreement to be executed on its behalf by its officer thereunto duly authorized and the Independent Consultant has executed this Agreement as of the day and year first above written.

ASME STANDARDS TECHNOLOGY, LLC

By: _____

Name: John J. Koehr

Title: President

INDEPENDENT CONSULTANT

By: _____

Name:

Title:

Social Security or Federal Tax ID number: [_____]

Annex 1 – Statement of Work

Scope Description

[TBD]

Annex 2 – Financial Terms

Reporting

1 Fees and Expenses

Technical services rate: [_____].

Travel rate (if applicable): [_____].

Travel expenses: [_____].

Contract Maximum: [_____].