



Engineering Procedure

SAEP-1622

11 April 2006

Preparation of Technical Bid Evaluation Plan Document for Process Automation Systems

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1 Scope

- 1.1 This Saudi Aramco Engineering Procedure provides guidelines to prepare and approve Technical Bid Technical Evaluation Plan document for Process Automation System (PAS). The Technical Bid Evaluation Plan is required for all procurements of PAS executed under SAEP-16, Project Execution Guide for Process Automation Systems.
- 1.2 The Technical Bid Evaluation Plan document outlines the objectives, responsibilities, procedures and schedules to technically evaluate PAS bid proposals. The plan defines the review criteria and the analytical steps to be taken to identify which bid proposals are technically acceptable and which are the most attractive to Saudi Aramco.
- 1.3 The Technical Bid Evaluation Plan is a document required before opening bidder's proposal. The plan contents will be based on the functionality listed in the Project Functional Specification, Project Job Specification and applicable standard contracting and purchasing terms and conditions.
- 1.4 This procedure does not apply to technical bid evaluations of custody metering systems. Evaluations of custody metering systems are conducted in accordance with SAEP-21, Project Execution Requirements for Saudi Aramco Royalty / Custody Metering Systems and SAEP-50, Project Execution Requirements for Third Party Royalty / Custody Metering Systems.

2 Conflicts and Deviations

- 2.1 Any conflicts between this Procedure and other applicable Saudi Aramco Engineering Procedures (SAEPs), Saudi Aramco Engineering Standards (SAESs), Saudi Aramco Materials System Specifications (SAMSSs), Saudi Aramco Standard Drawings (SASDs), or industry standards, codes, and forms shall be resolved in writing by the Company or Buyer Representative through the Manager, P&CSD of Saudi Aramco, Dhahran.
- 2.2 Direct all requests to deviate from the Procedure in writing to the Company or Buyer Representative, who shall follow internal company procedure SAEP-302 and forward such requests to the Manager, P&CSD of Saudi Aramco, Dhahran.

3 Applicable Documents

<i>SAEP-15</i>	<i>Preparation of Restricted Vendor Lists for Process Automation Systems</i>
<i>SAEP-16</i>	<i>Project Execution Guide for Process Automation Systems</i>
<i>SAEP-21</i>	<i>Project Execution Requirements for Saudi Aramco Royalty / Custody Metering Systems</i>
<i>SAEP-50</i>	<i>Project Execution Requirements for Third Party Royalty / Custody Metering Systems</i>
<i>SAEP-302</i>	<i>Instructions for Obtaining a Waiver of a Mandatory Saudi Aramco Engineering Requirement</i>
<i>Supply Chain Management Manual Purchasing Edition PD09.09</i>	<i>Bid Evaluation</i>
<i>Procedure 8</i>	<i>Saudi Aramco Contracting Manual - Volume I: Bid Review Program</i>

4 Procedures

4.1 Technical Review Team

A Technical Review Team (TRT) shall be assembled by SAPMT. The team shall be comprised of the following members:

- COMPANY Project Management Representative(s)
 - COMPANY Proponent Representative(s)
-

- COMPANY Process and Control Systems Department Representative(s)
- COMPANY Purchasing Representative(s)
- CONTRACTOR Representative(s) (as required by PMT)

4.2 Technical Bid Evaluation Plan

- 4.2.1 The SAPMT is responsible for the preparation of the Technical Bid Evaluation Plan.
- 4.2.2 The plan document shall include as a minimum all items listed in the Sample Technical Evaluation Plan Document listed in Appendix A of this document.
- 4.2.3 The plan document shall define the MUST and WANT criteria which will be used as the basis for the technical evaluation.

4.3 Technical Bid Evaluation Agreement Form

- 4.3.1 The following organizations shall sign-off on the Plan prior to the commencement of the Technical Bid Evaluation:
 - SAPMT
 - Proponent Operating Organization
 - Process & Control Systems Department (P&CSD) as the Technical organization
 - Contracting Department or Purchasing Department as applicable
- 4.3.2 A sample Technical Bid Evaluation Agreement form is listed in Appendix B.

4.4 Confidentiality Statement

- 4.4.1 Proposal information shall be treated with strict confidentiality. Each TRT member shall sign a Confidentiality Statement. A sample Confidentiality Statement is listed in Appendix C.
- 4.4.2 Communication to Bidders and sub-vendors during the evaluation period will be solely through the Purchasing Representative. All contacts shall be in writing and shall contain who initiated the contact, who was contacted, date, time purpose of contact, and summary of contact.

4.5 Evaluation Controls

- 4.5.1 Controlled copies will be made of each Bidder proposal for each member of the TRT.
- 4.5.2 Each TRT member will be responsible for maintaining the controlled copy in their possession and for maintaining their responsibilities to ensure Confidentiality of the proposals.

4.6 Evaluation Deliverables

- 4.6.1 The TRT shall prepare a TRT Recommendation Report. The report shall include the following:
 - A recommendation to the commercial evaluation team stating which proposals were determined to be technically acceptable by the TRT.
 - A Bid Tab showing the summarized team result for each vendor.
 - A technical summary for each proposal highlighting and comparing how the proposed systems from each bidder is meeting the project specification for network architecture, area segregation, and any other major project specific requirement.
 - A listing of all clarification items with possible commercial impact for each technically acceptable proposal.
 - A listing of any outstanding issues with possible commercial impact for each technically acceptable proposal.
 - A listing of any non-compliance items or any potential waiver issues for each technically acceptable proposal.
 - A listing of any proposed options which were considered to be technically acceptable.
 - Details and justification for any proposals which were determined not to be technically acceptable.
- 4.6.2 Each member of the TRT shall sign the recommendation report signifying acceptance of the recommendations.
- 4.6.3 A sample TRT Recommendation is listed in Appendix D.

5 Technical Evaluation Scope

5.1 Overview

- 5.1.1 The purpose of the technical evaluation is to determine whether the proposals submitted by each vendor meet the technical requirements defined in the project Functional Specification Documents, the Project Scope of Work documents, and all applicable Saudi Aramco Standards and Material Specifications.
- 5.1.2 Clarifications will be requested from bidders where the TRT have determined that either important functionality has not been included, functionality or components have been included where not required, or where the TRT is unclear how a particular functionality will be met.
- 5.1.3 The intention is to ensure that each proposal contains all required functionality to both minimize the possibility of change orders at a later stage of the project and to ensure that proposals determined to be technically acceptable can be evaluated on an equivalent basis during the commercial evaluation.

5.2 Review Items

The Technical Evaluation shall, as a minimum, review the following items for each proposal during the technical evaluation:

5.2.1 Documentation Completeness

The TRT will ensure that all required documentation has been supplied for each proposal. These shall include as a minimum:

- Responses to items included in the Instructions to Bidders
- Detailed technical proposal
- System Architecture Drawing
- Project Schedule and Manpower Loading

5.2.2 Major DCS component Review

The TRT will ensure each proposal contains all major components of the DCS system and that the correct numbers have been supplied (i.e., correct number of consoles, workstations, controllers, software, etc.).

5.2.3 Sub-systems component review

The TRT will ensure that each proposal contains all major sub-systems required, that only sub-systems from the Recommended Vendors List have been proposed, and that the correct numbers of sub-systems have been proposed.

5.2.4 Table of Compliance Review

The TRT will review the table of compliance for each proposal and review any stated non-compliance issues. TRT will decide if stated non-compliance issues are grounds for disqualification of proposals.

5.2.5 Segregation Requirements

The TRT will review the proposed system architecture for each proposal to determine if the system meets project requirements for risk area segregation.

5.2.6 Project Schedule

The TRT will review the project schedule provided by each vendor to ensure the proposed schedule meets project requirements. All major milestones shall be included in each proposed schedule.

5.2.7 Compatibility of Proposals

The TRT will determine if each proposal is essentially compatible and provide essentially the same functionality with respect to materials, functionality and services.

5.2.8 Clarifications

The TRT will develop a list of clarifications required from each proposal and submit the items to bidders through Saudi Aramco purchasing representative for responses. The TRT will review the responses and ensure all clarifications have been cleared. The final TET report shall include a section which identifies all technical clarification that will/may result in a commercial impact.

5.2.9 Non-Compliance Items

The TRT shall identify any Non-compliance items for each proposal. The TRT shall determine whether these items are significant enough to justify technical disqualification.

5.2.10 Potential Waiver Items

The TRT shall identify and potential waiver during the bid evaluation. Potential waiver items shall be discussed with the responsible technical organization for initial agreement. Waivers shall be processed during project execution per SAEP-302.

5.2.11 MUST Criteria

The TRT will review each proposal and ensure the proposed system meets all the MUST criteria defined in the technical evaluation criteria.

5.2.12 WANT Criteria

The TRT will rate each proposal based on the WANT criteria defined in the technical evaluation criteria.

6 Technical Evaluation Criteria

6.1 Overview

6.1.1 The criteria used for technical evaluation of proposals shall be based on the project functional specification documents (FSD), the project specific scope of work documents (SOW), and all applicable Saudi Aramco Standards and Material Specifications.

6.1.2 The criteria used to evaluate proposals shall be developed and concurred to by all members of the TRT prior to starting the evaluation. The criteria used shall be documented in the Technical Evaluation Plan and agreed to by all parties via signature of the Plan document.

6.1.3 The technical evaluation criteria shall be developed using the Kepner-Tregoe (K-T) methodology.

Commentary Note:

K-T is a widely accepted methodology for Problem Solving and Decision-Making. It provides a well structured, objective method for evaluating alternatives which can easily be applied to bid evaluations. The K-T criteria consist of two classes: the MUST criteria and the WANT criteria.

6.1.4 The criteria shall include criteria considered MUST, criteria considered WANT, and the associated weighting of each WANT criteria.

6.1.5 Proposals shall be considered technically acceptable only if they meet ALL of the MUST requirements and are given a score of 70% or higher in the WANT criteria.

6.2 MUST Criteria

6.2.1 In general, bidders are required to submit proposals which meet all of the requirements defined in the project FSD and applicable standards. A list of those considered most critical to the functionality of the system or success of the project shall be developed to be included as MUST criteria. Possible MUST requirements include the following:

- PCS vendor has assumed overall responsibility for integration of all sub-systems.
- All proposed equipment is field proven and from suppliers identified as acceptable in the RFQ.
- System Architecture meets segregation requirements.
- Project schedule meets milestone dates identified in the RFQ.
- There are no serious Non-Compliance issues identified in the proposal.
- Bidder has understanding of full scope of the project and has provided sufficient detail on the implementation.

6.2.2 Any proposal which fails to meet all of the MUST criteria shall be considered unacceptable and not be evaluated further.

6.2.3 A sample MUST criteria worksheet is listed in Appendix E. Each project has the right to modify the criteria to suite the needs of the particular project.

6.3 WANT Criteria

6.3.1 The WANT criteria evaluation score sheets list requirements that rank proposals against each other to identify the most attractive to Saudi Aramco.

6.3.2 Each member of the TRT shall score each proposal based on want criteria.

6.3.3 The score assigned by each TRT member for each individual WANT criteria shall be displayed to the entire TRT during the evaluation.

6.3.4 Any score which deviates significantly from the group shall be discussed. The intention is to ensure that the entire TRT reaches a consensus on the actual result.

Commentary Note:

The intention of this is not for entire TRT to assign the same score for each criteria. However, if the entire TRT assigns a score of 4 for a particular proposal in a WANT criterion and one member scores the same proposal criterion a 2, the person who scored a 2 shall be asked to discuss the reasons behind the score. That particular member may have some insight which other TRT members are not aware of and should therefore make that information available to the other TRT members for consideration. The reasoning behind a score which significantly deviate from the rest of the group must be understood by the group.

- 6.3.5 Scores for each criteria shall be averaged for all team members and normalized to 100 %. The final scoring shall be included the evaluation results.
- 6.3.6 Any proposal which is given less than a 70% normalized scoring based on WANT criteria shall be considered technically unacceptable and shall be disqualified.
- 6.3.7 Sample WANT criteria may include the following:
- Project Schedule – Have the required number of persons been assigned during each project phase in order to meet critical project milestones.
 - Engineering and Staging locations – Are the proposed engineering and staging locations advantageous to the project team.
 - Product Roadmap or Obsolescence – are any of the components of the system proposed planned to undergo a major revision in the next two-to-three year period.
 - Ability to integrate FF or Smart instruments.
 - Previous Project Experience – the level of experience within the proposed project team at implementing project of similar size for similar process applications.
 - Staging of the system shall be somewhere in the Middle East or in a location considered convenient to PMT.
 - Ability to ship Marshalling Cabinets prior to completion of the FAT.

Commentary Note:

Certain criteria which is considered a MUST criteria may also be included as a WANT criteria in order to evaluate the proposed implementation of the functionality. As an example, common Aramco segregation requirements dictate that systems located in PIBs be capable of functioning as totally independent systems. While the ability to "function"

is a mandatory requirement, depending on the architecture of the system proposed, certain functionality may be lost when there is a loss of communications to the CCR. A system architecture which proposed a single interface to DAHS located in the CCR would lose the ability to transfer data to DAHS during a communications failure. One would not consider the loss of data to DAHS a critical functionality. Therefore, the system would still be "functional"; however a system where DAHS data collectors are located in the PIBs would be preferable. In this case the ability to function is considered a MUST requirement. However the implementation of this might also be considered a WANT criteria. Systems which could still communicate to DAHS during a communications loss would have a higher rating in the WANT criteria.

- 6.3.8 A sample WANT criteria evaluation score sheet is listed in Appendix F. Each project has the right to modify the criteria to suite the needs of the individual project.

7 Technical Evaluation Results

7.1 Acceptance of Proposals

Acceptance of any proposal shall be based on compliance with all MUST criteria and a minimum score of 70% for WANT criteria. Accepted proposals shall be approved by the Technical organization.

7.2 Disqualification of Proposals

7.2.1 Disqualification of any proposal shall be based on non-compliance of MUST criteria or a score of less than 70% based on WANT criteria. An associated problem analysis of evaluation results shall be conducted for any proposal determined to be technically disqualified.

7.2.2 The TRT shall ensure that the issues resulting in disqualification are clearly identified and constitute sufficient justification for disqualification.

7.2.3 TRT shall ensure that bidders have been given opportunity to resolve issues identified as cause for disqualification and have declined or failed to do so appropriately.

7.2.4 TRT shall ensure that any decision to disqualify has been reached by consensus of the TRT. Detailed justification for any disqualification shall be documented in the Technical Evaluation Recommendation Report.

7.2.5 Technical Disqualifications shall be approved by the Technical organization.

8 Acronyms and Definitions

8.1 Acronyms

CR&CCD	Contract Review and Cost Compliance Department
DCS	Distributed Control System
FSD	Functional Specification Document
IPAS	Integrated Process Automation System
K-T	Kepner-Tregoe
P&CSD	Process & Control Systems Department
PAS	Process Automation System
RVL	Restricted Vendor List
SAEP	Saudi Aramco Engineering Procedure
SAMSS	Saudi Aramco Materials System Specification
SAPMT	Saudi Aramco Project Management Team
SRC	Services Review Committee
TRT	Technical Review Team

8.2 Definitions

Kepner-Tregoe (K-T) Methodology: A structured Problem Solving and decision-making techniques based on step-by-step evaluation.

Operating Organization: The department or organization receiving the project deliverables.

Process Automation Project: A project or portion of a project for which the scope includes a process control or data acquisition system.

Restricted Vendor List (RVL): A list of approved vendors for process automation systems that have been evaluated according to SAEP-15.

Saudi Aramco Project Management Team (SAPMT): A group of individuals responsible for the execution of a project and reporting to a Project Management Division or Department. The SAPMT has full design, procurement, and construction responsibilities.

Technical Review Team (TRT): A group of individuals who are responsible for reviewing the technical portion of the bid.

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Preparation of Technical Bid Evaluation
Plan Document for Process Automation Systems

11 April 2006	Revision Summary Major revision.
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Appendix A – Sample Technical Bid Evaluation Plan

1. Introduction

1.1 Scope

This section shall introduce the Technical Bid Evaluation Plan, describing the content and objectives of using it.

1.2 Applicable Documents

All documents referenced in the plan shall be listed. The list shall include the governing Functional Specifications Document (FSD), Job Specification and applicable Saudi Aramco Standards and Material Specifications.

1.3 Terms and Abbreviations

Definitions of all acronyms, mnemonics, and special terms used in this document shall be provided.

2. Overview

A concise summary of the system to be evaluated and related sub-systems.

3. Prerequisites

All conditions and requirements that must be met or completed before initiation of bid evaluation shall be listed and described. Examples of such prerequisites could be:

3.1 Documentation

The section shall list any system and configuration documents to be prepared prior to conducting the technical evaluation. System and configuration documents could be system I/O point counts, system layout, etc.

3.2 Bid Slate

Bid slate of potential bidders shall be prepared prior to bid evaluation commencement.

4. Personnel Requirements

All personnel required to conduct the evaluation shall be listed in this section. This section shall list the TRT members and represented organizations. The TRT members shall include the following:

- Contractor personnel requirements and responsibilities.
- Company personnel requirements and responsibilities.
- Special personnel qualifications (network, systems, etc.).

5. Evaluation Controls

This section shall list and describe review controls. Typical review control includes:

- Review Confidentiality
- Methods for handling bid documentation and transmittals
- Communication with bidders

6. Evaluation Procedures

This section shall state evaluation methodology.

7. Evaluation Schedule

List evaluation milestone and completion dates.

8. Evaluation Deliverables

This section shall list deliverables to be completed by the evaluation team.

9. Attachments

This section contains Technical Bid Evaluation attachments such as:

- Confidentiality Statement
- MUST evaluation criteria
- WANT evaluation criteria with weightings
- Template of Recommendation Report.

Appendix B – Technical Bid Evaluation Plan Agreement

BI NO: _____

The following Technical Review Team members concur with the bid evaluation plan and procedure.

Name	Signature	Date

Appendix C – Confidentiality Statement for Bid Evaluation

BI NO: _____

With respect to BI-_____, ***{Project Name}**, I am aware that all information regarding the bid proposals and bid evaluation is strictly confidential and is being provided to me on a "need-to-know" basis because of my involvement in this process.

I am aware that confidentiality of all such information is to be maintained at all times and its disclosure to any non-privileged person inside or outside of Saudi Aramco including vendor personnel, requires approval of Saudi Aramco management.

Signature: _____

Name: {Name}

Date: {Date}

Appendix D – Sample TRT Recommendation Report

{Name of Projects Department}
{Address & Telephone}
{Date}

PCS Technical Evaluation Report
{BI number}
{Project Title}

Confidential
{Ref. No.}

To: Commercial Evaluation Team

1. INTRODUCTION

In accordance with the COMPANY Restricted Vendor List (RVL) for Process Control Systems the Technical Review Team (TRT) evaluated the proposals submitted by the following Vendors that are approved for Foundation Fieldbus (FF):

- VENDOR 1
- VENDOR 2
- VENDOR 3

2. TECHNICALLY ACCEPTABLE VENDORS

In accordance with the Technical Evaluation Plan, the Technical Review Team has determined that the proposals submitted by the following vendors are technically acceptable:

- VENDOR 1
- VENDOR 3

3. TECHNICALLY DISQUALIFIED VENDORS

In accordance with the Technical Evaluation Plan, the TRT has determined that the proposals submitted by the following vendors do not meet the minimum technical requirements:

- VENDOR 2

4. BASE PROPOSAL SUMMARY

The table below summarizes the systems proposed by the vendors in their base bids:

Subsystem	VENDOR 1	VENDOR 2	VENDOR 3
DCS			
ESD			
VMS, MDVMS			
CCS			
DAHS			
ALAMR MGMT			
IAMS			
OTS			
Base Location			

5. SUMMARY OF THE TECHNICAL EVALUATION & SCORING

The Technical Review Team (TRT) reviewed the Technical and Execution proposals from all Vendors and evaluated the Vendors according to the criteria defined in the Bid Evaluation Program. The following table contains a summary of the results.

	VENDOR 1	VENDOR 2	VENDOR 3
MUST CRITERIA	PASS	FAIL	PASS
MUST CRITERIA	85%	N/A	79%

6. SUMMARY OF ACCEPTABLE PROPOSALS

This section shall provide a summary of the technically acceptable proposals and a list of major items which were clarified with the vendor during the technical evaluation. Indicate if the vendor stated that the item had an impact on their commercial proposal. Items shall be referenced by clarification item #. Also list any outstanding issues which require further clarification/evaluation by the commercial evaluation team. The following is provided as an example:

6.1 VENDOR #1 PROPOSAL

Proposal Summary:

Summarize the TRTs understanding of the proposal and how it meets the major technical and project execution requirements for the project.

VENDOR #1's technical proposal has been identified to be generally complete and addresses the project requirements of the Request for Quotation (RFQ). The proposal met the operating and the risk areas segregation requirement. All sub-systems in the base proposed are from the approved RVL.

The proposed execution schedule meets the critical milestones as required by the ITB. VENDOR #1 has proposed to execute the job from their Bahrain office. They have offered to conduct the system Integrated Factory Acceptance Test (IFAT) in Saudi Arabia as an alternate.

Major Clarifications:

List Major Technical or Execution clarification items here. Indicate if commercial impact.

VENDOR #1 did not include the required number of OSI-PI client software licenses. This issue was clarified in clarification item # XX. VENDOR #1 responded that the required number of licenses would be supplied and this would impact their commercial proposal.

VENDOR #1's project schedule did not support staggered implementation of consoled to support the start-up sequencing. This item was clarified in clarification item #XX. VENDOR #1 responded they would support this method of project execution with a commercial impact.

Non-Compliance Issues:

List any non-compliance issues with the proposal and the conclusion reached by TRT.

VENDOR #1 took an exception to 23-SAMSS-010 item #9.5.8. They indicated the option to drive to closed state for discrete outputs on fail-safe was not available in their system. This issue has been reviewed by P&CSD and determined to be acceptable. A waiver will be required to be submitted by the project.

Outstanding Issues:

List any outstanding issues which the Commercial Evaluation team need to consider.

There are no outstanding issues with Vendor #1's proposal.

6.2 VENDOR #3 PROPOSAL

Proposal Summary:

Summarize the TRTs understanding of the proposal and how it meets the major technical and project execution requirements for the project.

VENDOR #3's technical proposal was generally complete with the exception of some items which were supplied later through clarifications. They proposed to execute the project from Abu Dhabi. They also offered an option to conduct IFAT in Saudi Arabia as an alternative.

Major Clarifications:

List Major Technical or Execution clarification items here. Indicate if commercial impact.

1. The proposed vendor for Emergency Shutdown Systems did not include a Burner Management System (BMS) for the utilities area as is required. They also did not have a BMS in the MTS as required. These issues were raised in clarifications # XX & YY. VENDOR #3 confirmed the BMS for Utilities and MTS will be included and indicated there would be a commercial impact.

2. VENDOR #3 indicated that their liaison with the LSTKs is expected to be for 4 weeks and were not aware they needed to be there during the entire project design phase. This item was raised in clarification item #XX. VENDOR #3 confirmed compliance with this requirement and indicated there would be a commercial impact.

Non-Compliance Issues:

List any non-compliance issues with the proposal and the conclusion reached by TRT.

There were no Non-compliance issues identified with the proposal from VENDOR #3.

Outstanding Issues:

List any outstanding issues which the Commercial Evaluation team need to consider.

There are no outstanding issues with Vendor #1's proposal.

7. TECHNICALLY DISQUALIFIED PROPOSALS

This section shall list any technically disqualified proposals and basis or reasons of disqualification. The following is an example:

VENDOR #2 PROPOSAL:

There were several issues with VENDOR #2's technical proposal which formed the basis for disqualification. These items are listed below with further details on each to follow:

Proposal did not meet segregation requirements for risk areas 2A & 2B.

Risk Area Segregation:

VENDOR #2's proposal did not contain separate systems for risk areas 2A & 2B. PIB #2 is a split PIB which contains two risk areas: 2A & 2B. VENDOR #2 proposed a single console for PIB #2. This issue was raised in clarification items XX and YY. VENDOR #2 failed to confirm that independent systems would be provided for risk areas 2A and 2B. They also did not provide an updated system architecture drawing and updated Bill of Materials confirming separate systems were provided as requested in the clarification.

8. SUMMARY OF ALTERNATE PROPOSALS

This section shall list any alternate proposals from vendors whose base proposal was determined to be technically acceptable. TRT shall indicate whether each alternate was considered technically acceptable. The following is provided as an example:

8.1 VENDOR #1:

VENDOR #1 offered the following alternate proposals:

ALTERNATE		PASS/FAIL	LOCATION
ESD VENDOR	VENDOR #1 offered to use ESD VENDOR XYZ as an alternate.	FAIL	NA
IFAT LOCATION	VENDOR #1 offered to conduct IFAT in Saudi Arabia.	PASS	KSA

- The alternate proposal for ESD system has been determined to be NOT acceptable. The proposed system is not from the approved RVL vendors.
- VENDOR #1 offered to conduct IFAT in Saudi Arabia. They provided an alternate schedule which did not significantly impact the project milestones. This option is considered acceptable by the TRT.

8.2 VENDOR #3:

VENDOR #3 offered the following alternate proposals:

ALTERNATE		PASS/FAIL	LOCATION
IFAT in Saudi Arabia	VENDOR #1 offered to conduct IFAT in Saudi Arabia.	PASS	NA

- VENDOR #1 offered to conduct IFAT in Saudi Arabia. They provided an alternate schedule which did not significantly impact the project milestones. This option is considered acceptable by the TRT.

9. RECOMMENDATION TO COMMERCIAL EVALUATION TEAM (CET):

1. The proposals from VENDOR #1 and VENDOR #2 are technically acceptable. Therefore; CET is recommended to open their Commercial proposals and start the commercial evaluation for these vendors.
2. The proposal from VENDOR #2 is NOT technically acceptable. The TRT recommends not to proceed with commercial evaluation of the proposal from this vendor.
3. As a result of the Technical Clarifications, the PCS VENDORS advised that there will be commercial impacts that have been submitted in a sealed envelope for the Commercial Evaluation Team's review. CET shall take into consideration the commercial impacts and ensure that the bidders' commercial proposal is normalised and fair.
4. The proposal from VENDOR #1 contained an option for conducting IFAT in Saudi Arabia. The TRT reviewed this and found the proposal to be technically acceptable. TRT recommends that this option be considered in the commercial evaluation.

10. ATTACHMENTS

1. MUST Criteria Scoring Summary
2. WANT Criteria Scoring Summary

Recommend by:

{Name}
TRT Member

{Name}
TRT Member

{Name}
TRT Member

Approved by:

{Name}
Manager
SAPMT

{Name}
Manager
Operating Organization

{Name}
Manager
P&CSD

Attachment - 1

TECHNICAL EVALUATION MUST CRITERIA SUMMARY

REF. NO.	REQUIREMENT	VENDOR #1	VENDOR #2	VENDOR #3
Proposal Completeness				
7.12.1	Tables of Compliance			
7.12.3	Bill of Materials			
7.12.3	List of Services			
7.12.7	Software Licenses			
7.4.1	Project Schedule			
New	Manpower Loading			
7.12.4	System Architecture Drawings			
7.12.5	Equipment Dimensions			
7.12.6	Space Requirements			
7.12.7	I/O Summary Table			
7.12.12	List of Tested Devices			
7.3.2	List of Auxiliary Vendors			
New	ESD Scan Time Calculations			
Functional Requirements				
7.12.2	Exceptions to Tables of Compliance			
7.3.2	Auxiliary Systems Vendors			
7.12.9	Distributed Database			
7.12.10	Single Window Concept			
7.12.13	Redundancy			
7.12.14	Network Capability			
7.12.18	Field Proven			
7.12.21	INTools database Mgmt.			
New	Risk Area Segregation			
New	DCS Control Network Design			
New	Single Point of Failure			
New	ESD Scan Time			
New	Interface to ESD			
New	Time Synchronization			
Project Execution				
7.4.1	Project Schedule			
New	Overall PCS Responsibility			
OVERALL				

Attachment - 2
TECHNICAL EVALUATION WANT CRITERIA SUMMARY

REF. NO.	REQUIREMENT	MAX. SCORE	VENDOR #1	VENDOR #2	VENDOR #3
7.3	Execution Plan				
7.4	Schedule				
7.5	Project Interfaces and Coordination				
7.6	Organization & Resources				
7.8	I/O Data Base				
7.9	In-Kingdom Capabilities				
7.10	Product Lifecycle				
RAW TOTAL		66			
NORMALIZED TOTAL		100%			

Scoring - A score of greater than or equal to 70% or 46 points for passing.

Appendix E – Sample Bid Evaluation Must (or Pass/Fail) Criteria

Attachment - 3 TECHNICAL EVALUATION (PASS/FAIL)

REF. NO.	ITEM	REQUIREMENT	COMMENTS	PASS/ FAIL
Proposal Completeness/Required Documentation				
7.12.1	Tables of Compliance	Bidder shall provide Tables of compliance to the following: All Project Functional specifications and all relevant Saudi Aramco Material Standards and Engineering Standards.		
7.12.3	Bill of Materials	If the PCS bidder does not provide a separate bill of material for every operating area and sub-system, System shall fail.		
7.12.3	List of Services	Bidder shall provide an itemized listing of services included with the proposal.		
7.12.7	Software licenses	Bidder shall provide a listing of all software licenses included for each operating area. This can either be a separate listing or included in the Bill of Materials above.		
7.4.1	Project Schedule	Bidder shall provide detailed project schedule showing all milestones listed in ITB section 7.4.1		
New	Manpower Loading	Bidder shall provide the following information related to manpower loading: - Total estimated man-hours - Manpower loading histogram showing the total number of engineers dedicated to the project for each month in the project schedule.		
7.12.4	System Architecture Diagrams	Bidder shall provide a system architecture drawing for the proposed system.		
7.12.5	Equipment Dimension	If the PCS bidder does not provide cabinets and console layout drawings, System shall fail.		
7.12.6	Space Requirements	Bidder shall provide actual space requirement for equipment and cabinets including requirements for door swing, space requirements per the National Electrical Code or recognized equivalent.		
7.12.7	I/O Summary Table	Bidder shall provide an I/O card count list indicating total I/O cards of each type including spares to meet the segregation requirements defined in COMPANY specification. Bidder shall also provide type and number of each software license included in the proposal and segregated by Risk Area.		

REF. NO.	ITEM	REQUIREMENT	COMMENTS	PASS/ FAIL
7.12.12	List of tested devices	Bidder shall provide a list of tested and supported Third Party Foundation Fieldbus devices (including MOV's) to ensure Interoperability and tight integration with the DCS/IAMS. If the PCS bidder failed to provide list of devices, System shall fail.		
7.3.2	List of Auxiliary Vendors	Bidder to provide a list of the proposed vendors for the auxiliary sub-systems. If bidder does not submit the list, System shall fail.		
New	ESD Scan Time Calculations	Bidder must provide estimated scan times for all ESD system proposed. If bidder does not provide the estimated scan times, System shall fail.		
FUNCTIONAL REQUIREMENTS				
7.12.2	Functional Requirements	In the Tabulation of Compliance, Bidder shall highlight items for which alternates are offered or exceptions are taken. Each item shall indicate one of the following: a) Bidder's capability meets or exceeds the stated functional or design requirements; b) Bidder's capability does not meet the stated functional or design requirement, but provides either an alternate equivalent function offered, or technical justification supporting a waiver of the requirement.		
7.3.2	Auxiliary Sub-Systems	All proposed Auxiliary sub-systems are from approved vendors listed in the ITB. Bidder shall state commitment not change proposed system in the base proposal to system offered as alternate even if the alternate proposal is an approved RVL product.		
7.12.9	Distributed Database	System must provide a separate DCS configuration database for each operating area. (NOTE: Only if required by the Project Specific FSD).		
7.12.10	Single Window Concept	System must have the ability to monitor and control any portion of the plant from any workstation (assuming proper user privileges) using the vendors standard, field proven solution.		
7.12.13	Redundancy	Bidder shall address how its PCS will support redundancy at the network, node, communication to third party and I/O at chassis level. If bidder's system does not provide redundancy as required, System shall fail.		

REF. NO.	ITEM	REQUIREMENT	COMMENTS	PASS/ FAIL
7.12.14	Network Capability	Bidder shall provide published data that confirms that the network will not limit the PCS in communications between the CCR and the furthest PIB. If the PCS does not support a network design relating to the geographic spread or cannot communicate over the network distance between PIBs and CCR, System shall fail.		
7.12.18	Field Proven	Bidder shall identify any portions of its PCS that are not field proven. If BIDDER provides any equipment in their proposal that is not field proven, System shall fail.		
7.12.21	INTools database management	Bidder shall explain how the PCS database can import/export data to the INtools™ database application that shall be used by LSTK CONTRACTOR to define I/O parameters. If BIDDER provides a plan to develop and manage the database in INtools™, System shall pass.		
New	Risk Area Segregation	System must meet requirements for segregation of risk area.		
New	DCS Control Network Design	Bidder shall provide redundant, dedicated communications between equipment located in the PIB and the corresponding Operator Console in the CCR (often referred to as level 2). An Operating area may consist of more than one risk area. In this case, there must be separate communications equipment for each risk area. Communications between operating areas shall be accomplished by interconnecting Operating Area Control Networks in the CCR (often referred to as level 3).		
New	Single Point of Failure	If Bidder's system has a single point of failure which would result in any of the following, System shall fail: • Loss of communications on the entire DCS network. • A failure which will result in loss of functionality for equipment in more than one risk area (not including top level (3) switches). • A single failure within a single risk area which would result in loss of control or the operator's ability to monitor and control the process in that area.		
New	ESD Scan Time	Bidder must provide scan time calculations for the proposed ESD systems. If the bidder proposes systems which do not meet the requirement for maximum 100 msec scan time, System shall fail.		

REF. NO.	ITEM	REQUIREMENT	COMMENTS	PASS/ FAIL
New	Interface to ESD	Bidder shall provide redundant, dedicated communications links between ESD and DCS per risk area.		
New	Time Synchronization	Bidder shall explain how all PCS components will be synchronized to each other using GPS. If Bidder does not provide time synchronization for all systems, System shall fail.		
PROJECT EXECUTION REQUIREMENTS				
7.4.1	Project Schedule	Bidder's proposed schedule must meet or exceed all critical milestones defined in the ITB. If bidder cannot meet expected critical milestones, System shall fail.		
New	Overall PCS Responsibility	Bidder must state that they have overall responsibility for all equipment included in the PCS Scope of Supply. PCS Vendor must assume responsibility for equipment and services provided by Third party vendors included in the PCS scope of supply.		

Appendix F – Bid Evaluation Want Criteria

Attachment - 4

WANT CRITERIA EVALUATION SCORING

REF. NO.	REQUIREMENT	COMMENT	MAX. SCORE	VENDOR SCORE
7.3 – Execution Plan: Total = 12 pts.			12	
7.2	Bidder shall provide an executive summary, (not to exceed two (2) pages) describing its understanding of the scope of WORK and acknowledging that the WORK will be carried out in line with the Operating Plan and Project's Schedule.	If PCS VENDOR confirms their understanding of the scope of work, assign 2 point.	2	
7.3.1	Bidder shall provide a brief execution plan narrative which addresses all of the WORK to be performed to complete this WORK. A summary of the WORK that the PCS VENDOR will perform during the first 60 days following award of the Purchase Order (PO).	If PCS VENDOR states that they will mobilize and place a representative in the LSTK Contractor's office, Assign 2 point. If PCS VENDOR provides a statement of work items which they will begin working on, such as working on the Configuration Guideline, assign 2 point.	2 2	
7.3.3	The division of responsibilities between the PCS VENDOR and Auxiliary System Vendors of major scope elements such as: ESD, CCS, Multi-Drop Vibration Monitoring System, Vibration Monitoring System, MTS and OTS.	If PCS VENDOR confirms that the Auxiliary Vendors will be sub-contractor to the PCS VENDOR and that the Auxiliary Vendors will perform the design work for their systems as per the specifications, assign 3 points.	3	
7.3.4	Bidder shall summarize its understanding of the relationship with the Contractor(s) and provide realistic ways under the contract to enhance the success of the Project.	If PCS VENDOR confirms its understanding of three (3) Contractors, confirm that they will provide a representative in each Contractor's offices, and suggest realistic ways to enhance the relationship, assign 3 Points.	3	

REF. NO.	REQUIREMENT	COMMENT	MAX. SCORE	VENDOR SCORE
7.4 - Schedule: Total = 12 pts			12	
7.4.1	Bidder shall provide a preliminary schedule for the proposed PCS showing the following milestone dates: • PO placement • Kick-off meeting • System design period • System Design Document Review • Instrument Database transmittals from/to Contractors • Preliminary Design Review (PDR) • Critical Design Review (CDR) • System manufacturing period • Factory Staging • Pre and Actual Factory Acceptance Test (FAT) • System Readiness Review (SRR) • Integrated FAT period • Certification and packing • Shipping, release from customs and delivery to site • Installation period • Site Acceptance Test (SAT) Bidder shall provide a narrative with the schedule which describes in detail the sequence of events	If PCS VENDOR sequences the milestones in the correct order and allows a minimum of 3 months between PDR and CDR, and a minimum of 3 months between CDR and SRR, assign 3 Points. If PCS VENDOR allows for at least two months for the manufacturing period, assign 3 Points.	3	

REF NO.	REQUIREMENT	COMMENT	MAX. SCORE	VENDOR SCORE
7.4.2	The schedule shall clearly indicate all of the following: a) Any float time together with any freeze dates and major milestone for equipment design and delivery. b) All PCS VENDOR, Contractor and COMPANY activities critical to proper management of the work including all data deliverables from/to Contractor including related auxiliary equipment systems to be integrated with the DCS. c) Bidder's best estimate of the achievable major project milestones. d) Identification of the need and duration for Contractor/ COMPANY personnel visits to assist in developing the PCS design. The destination of proposed visits should be identified as to the manufacturing facilities, integration facilities and/or project offices. e) The schedule must reflect a period of 28 days from issue of design review packages to the date of design review and ten (10) days notification from completion of all exception items to when the FAT will be held.	If PCS VENDOR identifies a period of 28 days from issue of design review packages to design review, and a period of 10 days for notification prior to beginning of FAT, assign 3 points.	3	
7.4.3	The schedule shall be detailed enough to address stages of tests by Operating Areas and by Risk Areas since it will be unlikely that the complete system can be staged and tested at one time. Bidder shall detail the stages of FAT by combinations of consoles, systems, and/or Risk Areas. No more than two (2) similar tests can be conducted at one time.	If PCS VENDOR splits the PCS into logical test phases that support the start up, Assign 3 pts.	3	

REF. NO.	REQUIREMENT	COMMENT	MAX. SCORE	VENDOR SCORE
7.5 – Project Interfaces and Coordination: Total = 9 pts.			9	
7.5.1	The key interfaces and coordination areas within the Bidders organization, with auxiliary system vendors, with Contractor(s), with COMPANY and any other projects and areas that are considered significant. Bidder shall address Bidder's vision of working with Contractor.	If PCS VENDOR confirms that they will liaison with the Contractor's and identify the list of deliverables required from LSTK's (i.e. IFC P&ID, Logic Drawings, Instrument Database), Assign 3 Points.	3	
7.5.3	As one centralized design, integration, configuration, pre-FAT and FAT location is required, confirm and specify this location. Bidder shall list alternative location(s) including Saudi Arabia available Staging Areas. Bidder shall identify the proposed floor area of the staging location. Bidder shall demonstrate (by use of reference to previous projects, for example) that the proposed staging area is adequate in space, power and HVAC. Bidders shall also provide an optional bid considering the performing of the overall PCS staging activities in Saudi Arabia.	If PCS VENDOR provides one location, assign 3 Points.	3	
7.5.4	It is essential that PCS VENDOR pro actively work with the Contractors and auxiliary system vendors to expedite and clarify the exchange of information to enhance timely design completion. Bidder shall address what resources will be implemented to expedite the exchange of information with the contractor(s). Further, the Vendor Services Specification states that PCS VENDOR shall place a representative in the Contractor's offices – Bidder shall confirm that this will be included.	If PCS VENDOR confirms and suggests a workable approach showing that they will manage the sub-vendors, assign 3 Points.	3	

REF. NO.	REQUIREMENT	COMMENT	MAX. SCORE	VENDOR SCORE
7.6 - Organization and Resources: Total = 12 pts			12	
7.6.1	CORPORATE ORGANIZATION A description of the Bidders overall corporate organization, as distinct from project organization, and describe Bidder's functional and financial relationships with any parent, affiliated and non-affiliated company with whom Bidder is associated that is proposed to participate in the WORK. Specifically define the services that each company will contribute towards Bidder's performance of the WORK.	If PCS VENDOR shows on the Corporate Organization where the Project Team of the PCS VENDOR will report to including Man-Power Loading Chart for the duration of the Project, Assign 1 Point.	1	
7.6.2	PROJECT ORGANIZATION A description of the proposed organization that will demonstrate that it will contribute towards Bidder's performance of the WORK.	If PCS VENDOR confirms that they will assign a Company Official to work with the PMT, Assign 2 Point.	2	
7.6.2.1	Details of how many of the PCS VENDOR staff are dedicated to DCS project work.	If PCS VENDOR states the number of people dedicated to DCS work is within 20% of the company estimate, assign 3 Points.	3	
7.6.2.2	Complete Attachment II of Section 2 of the Instructions to Bidders providing the number of man hours estimated to complete the WORK from PO placement through FAT/IFAT completion and shipment of the system.	If PCS Vendor estimated man-hours is within 20% of the company estimated 150,000 man-hours, assign 3 Points.	3	
7.6.2.3	A table number of people required to complete the WORK. This table shall summarize the classifications of people that will used to complete the work, i.e. number of Project Engineers, System Engineers, Software Engineers etc.	If PCS Vendor shows a peak manpower loading which is within 20% of the company estimate for peak manpower required, assign 3 Points.	3	
7.8 – I/O Database: Total = 3 pts.			3	
7.8	Bidder shall explain the data formats that will be used for importing computer supplied Instrument Index. Bidder shall provide a sample Instrument Index identifying the following: - Fields required to complete its WORK - Fields provided by Contractor - Fields to be completed by PCS VENDOR Bidder shall specify when each field is required to support the PDR, CDR, staging, FAT and IFAT.	If PCS VENDOR provides details on their ability to integrate INTools database, assign 3 Points.	3	

REF. NO.	REQUIREMENT	COMMENT	MAX. SCORE	VENDOR SCORE
7.9 – In-Kingdom Capabilities: Total = 6 pts.			6	
7.9.1	Bidder shall provide its plan for executing portions of the project In-Kingdom.	If PCS VENDOR confirms that they will perform configuration, staging and FAT In-Kingdom, assign 3 Points.	3	
		If PCS VENDOR confirms that they will perform the Integrated FAT In-Kingdom, assign 3 Points.	3	
7.10 – Product Lifecycle: Total = 12 pts.			12	
7.10.1	Bidder shall provide the release dates for the controllers proposed to be used for the project. On average, vendors introduce new controllers every 8 yrs. Based on the release date of the controllers being proposed, one can estimate when they will be superseded with a newer version. Those systems whose components have been released more recently will tend to have a longer lifespan and therefore should be given a higher scoring.	Assign the appropriate points from the table below based on the amount of time from the release date till the RFQ date: • 0 - 2 yrs since introduction = 6 pts • +2 – 5 yrs since introduction = 4 pts • +5 – 8 yrs since introduction = 2 pts • Greater than 8 yrs = 0 pts	6	
7.10.2	Bidder shall provide the release dates for the I/O modules proposed to be used for the project. On average, vendors introduce new I/O modules are introduced every 12 yrs. Based on the release date of the I/O being proposed, one can estimate when they will be superseded with a newer version. Those systems whose components have been released more recently will tend to have a longer lifespan and therefore should be given a higher scoring.	Assign the appropriate points from the table below based on the amount of time from the release date till the RFQ date: • 0 - 4 yrs since introduction = 6 pts • +4 – 8 yrs since introduction = 4 pts • +8 – 12 yrs since introduction = 2 pts • Greater than 12 yrs = 0 pts.	6	