

1.0 Purpose

A means by which Insitu suppliers may propose changes to design characteristics. This document defines how the Supplier Request for Engineering Assistance (SREA) is received, reviewed, accepted or rejected, and implemented.

2.0 Scope

Supplier determines if request is a Nonconforming Material request or a Supplier Request for Engineering Assistance to change the product design.

SREAs are supplier originated requests for design changes and may be applied against the following:

- Insitu prescribed specifications, e.g., Functional Product Spec (FPS), drawings, Interface Control Document (ICD), etc.
- Vendor controlled specifications on non-commodity parts
- Processes and manufacturing instructions
- Component end of life (EOL)
- Reporting a problem
- Other engineering related issues

3.0 Definitions

- Mark Up Document – Unapproved electronic or hand-written modifications to released drawing or document for purposes of review (PROC-00156).
- Nonconforming Material (NCM) – Materials or products that do not meet specified requirements (PROC-00254).

4.0 References

- PROC-00156 – Engineering Redline Documentation Process
- FORM-01537 – Supplier Nonconforming Material Request Form
- PRIN-00566 – Supplier Request for Nonconforming Material
- FORM-01520 – Supplier Request for Engineering Assistance (SREA) Form
- PROC-00254 – Control of Nonconforming Material
- PROC-00134 – Development, Release and Design Change

5.0 Responsibilities

5.1 Supplier

- 5.1.1 Submit a completed FORM-01520 and supporting documentation to Supplier Quality, SupplierManagement@insitu.com and include respective Insitu Supply Chain Analyst or Procurement Agent.

5.2 **SREA/NCM Administrator (Supplier Quality Engineering)**

- 5.2.1 Receive the SREA submission from the Supplier.
- 5.2.2 Screen SREA for completeness and request additional information if required.
 - If intellectual property (IP) Box is checked on the FORM-01537, process as normal.
 - If IP Box is not checked on PUF-83-001, ensure description of IP is contained in Proposed Solution section and forward SREA to the Chief Technical Officer or designee for disposition.
- 5.2.3 Enter a Problem Report (PR) into Insitu PDM and represents the Supplier's request at the Technical Review Board (TRB) and Change Review Board (CRB).

5.3 **Supply Chain Analyst/Procurement Agent**

- 5.3.1 Review and disposition cost/benefit analysis.
- 5.3.2 Support the SREA process on behalf of the Supplier and SM&P.
- 5.3.3 Track the status of the PR and Engineering Change Request (ECR) as it is routed through the design change process and informs supplier of all changes and requests for additional information (PROC-00134).
- 5.3.4 Rejections shall include the reason for rejection.
- 5.3.5 Confirmation of acceptance shall be a complete ECR/ECN and a revised engineering released documentation attached.

5.4 **Technical Review Board (TRB)/Change Review Board (CRB)**

- 5.4.1 Adjudicate the PR and/or ECR as it is routed for review per the current Design Change process.

5.5 **Engineering Lead**

- 5.5.1 May receive assignment after PR has been converted to ECR and assigns to an Engineer based on IPT priorities.
- 5.5.2 Provide SREA status updates as requested.

5.6 **Engineering**

- 5.6.1 Receive the PR after assignment by the Review Board and verify or disapprove the PR in a timely manner.
- 5.6.2 Implement the changes as approved by the TRB/CRB.

5.7 **Chief Technical Officer**

- 5.7.1 Review supplier position on IP if IP box is not checked.

6.0 SREA Form Fields

6.1 Severity

6.1.1 Severity (always select the highest applicable)

- S0 – Personnel Risk/ Critical Safety Item
- S1 – Flight or Production Risk / Unable to Produce
- S2 – Mission or Configuration Risk / Reliability Issues
- S3 – Usage Risk / Reliability Issues
- S4 – Non-Critical

6.2 Reason for Request

6.2.1 SREAs will include the following attachments to FORM-01520 when applicable:

- A markup of the latest approved drawing/document with the requested changes.
- Cost benefit analysis and relevant timing considerations.
- Any supporting information and data such as test results, specific design variances, actual measurements, historical records, or other technical data as appropriate.

6.2.2 Supplier shall NOT implement any design changes until formal approval has been communicated or a request for NCM has been submitted and approved (FORM-01537).

7.0 SREA Process

7.1 Initial Submission of Request

7.1.1 Supplier identifies need to submit a request for assistance to Insitu.

7.1.2 Supplier determines if request is a Nonconforming Material request or a SREA to change the product design.

- 1) If the request is a nonconformance and does not require a design change, the Supplier submits their request through (FORM-01537)
- 2) If the request is a change to the product design, the supplier submits their request through FORM-01520.
- 3) Supplier performs engineering and cost analysis of the proposed changed or action request. Identifies key timing and effectivity considerations.
- 4) Supplier creates supporting documentation including marked-up design documentation used to ensure clear communication of requested changes and any additional information.
- 5) Supplier completes FORM-01520, attaches supporting documentation, and submits the request to Insitu SM&P.

7.2 Internal Routing of SREA through Insitu

7.2.1 Administrator reviews the incoming SREA for completeness.

- 1) If incomplete or missing data Administrator notifies the supplier of requirements. SREA remains in a pending status until the information is received from the supplier.
- 2) If IP Box is not checked on FORM-01520, Administer ensures description of IP is contained in Proposed Solution section and forwards SREA to the Chief Technical Officer or designee for disposition.
- 3) If complete and the IP Box is checked, Administrator enters the SREA into the tracking database and creates a PR with the SREA and supporting documentation.
- 4) Consults with IPT/Engineers as needed.

7.2.2 SM&P (PA or SCA) tracks the SREA and updates the supplier on status.

7.2.3 The PR enters the Engineering Change Process and is presented to the Review Board.

- 1) If rejected, SM&P (PA or SCA) notifies Supplier with the Board's reason for rejection.
- 2) If approved, the Board assigns PR to an engineer for verification or recommends the PR is converted directly into an ECR.

7.2.4 Engineer evaluates the PR and verifies or denies the validity of the SREA.

- 1) If ongoing analysis is required, a planned completion date will be provided to SM&P (PA or SCA) and Supplier will be notified of the delay.

7.2.5 TRB will accept or reject the proposed design change.

- 1) If rejected, SM&P (PA or SCA) informs the supplier in writing of the rejection and reason for rejection.
- 2) If accepted, Configuration Management Analyst will convert the PR into an ECR and route it to the applicable IPT Lead or Engineer.
- 3) IPT will provide SREA status updates as requested.

7.2.6 SREA progresses through ECR/ECN implementation.

7.2.7 SM&P shall communicate the final disposition and any action items back to the Supplier.

7.2.8 Typical Receiving and Inspection criteria still applies to the articles when they are delivered to Insitu.

7.3 Reporting a Problem

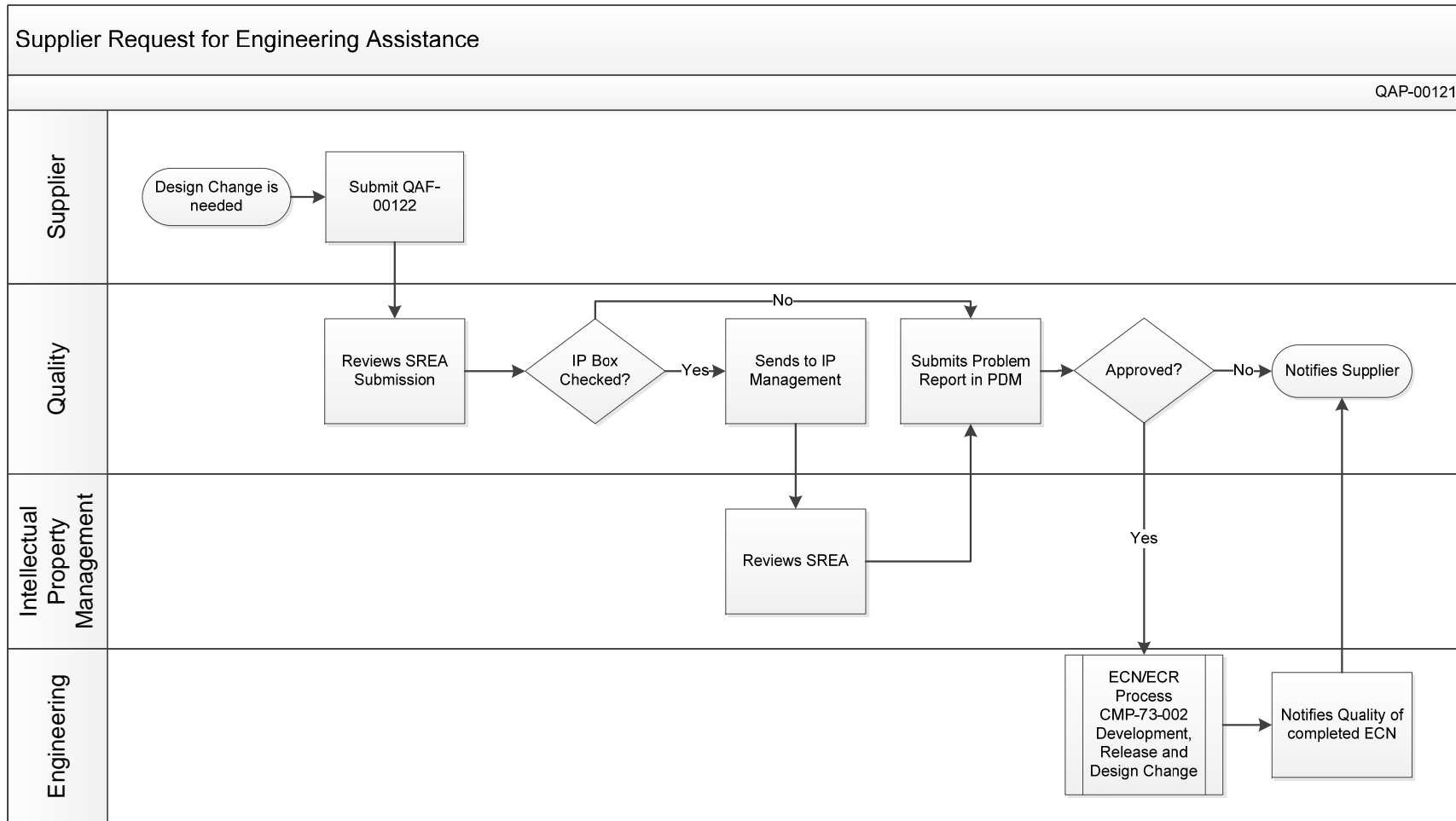
7.3.1 Supplier submitted Problem Reports should be documented through FORM-01520 and verified as deemed appropriate by the Review Board.

7.3.2 SM&P shall receive status updates from the individual assigned on the status/disposition of open Problem Reports and communicate required back to the Supplier.

7.4 End of Life

The SREA/NCM Administrator will route EOL notices to the appropriate Program's Diminishing Manufacturing Sources and Material Shortages (DMSMS) Board or the appropriate decision makers for EOL resolution.

8.0 Process Flowchart



9.0 Revision History

Revision History		
Rev	Description	Revised By
0	<p>This document was split off from QAP-73-016 Deviations and Waivers and Supplier Requests for Engineering Approval (Rev 3). That document to be renamed "Deviations and Waivers" (Rev 4). Significant changes made to procedure to support a more robust process and a rewrite of the SREA form. Changes include:</p> <ul style="list-style-type: none"> ▪ Adding procurement as the pass through for all Insitu -> supplier comms ▪ Created quality@insitu.com mailbox ▪ Created SREA Coordinator role ▪ Implemented 15-day timing window ▪ Pulled contracts from process ▪ Created flowchart ▪ Added reasons for rejection as mandatory feedback to supplier ▪ Process now feeds into Insitu PDP 	Nathan Martin, Dan Gardner, Susan Baker
1	<p>Changed document number from a QAP to a PUP number with change of ownership from Quality to SM&P; Revised scope 1.2.1 to allow use of SREAs for pre-CID product and vendor controlled specifications on non-commodity products; Revised Procurement to SM&P throughout; Moved the SREA Coordinator responsibilities and process to SM&P in all places; 3.0 eliminated unused references; 4.3 Collapsed engineering responsibilities under one heading; 4.3 accommodated SREAs for pre-CID product; provided for project tracking; Pg. 2&3 added provision for additional analysis required ; 5.3 requires bi-weekly updates from reviewers, for SREAs not closed within 15 days.</p>	Peter Leon
2	<p>Complete rewrite. Renamed process "Supplier Request for Engineering Assistance" from "Supplier Request for Engineering Approval". Tied process to current engineering design change processes. Removed the application of SREAs for authorization of Nonconforming Material acceptance; see PUP-73-002.</p>	Audrey Dickenson
3	<p>Referenced documents updated; Added section 6.1.1.2.1 to address Intellectual Property review with CTO office; CTO responsibilities; updated process to reflect alternate routing to CTO for IP review; Added section 5.1.1 SREA Form Fields; Ownership of document changed to Quality; updated footer; added rev 3 to revision history table.</p>	Audrey Dickenson, Doc Control
4	<p>Updated formatting; updated flow chart, updated PUF-73-001 to QAF-00122 (Document number change of SREA form); updated document number from PUP-73-001 to QAP-00121. Updated styles and logo; PUF-83-001 to QAF-00605.</p>	Doc Control, Larisa Schreffler
5	<p>SmartDocs reference tags applied; all metadata and ownership updated and verified during DMS migration.</p>	Document Management