

GE Power & Water

Supplier Handbook



imagination at work

DISCLAIMER

The information in this handbook is provided for convenience of our suppliers and may be subjected to change from time to time without prior intimation. This document may be used as a guide but not as a substitute to GE Power & Water Global Supply Chain Procedures, Work Instructions or Quality Management System.

GE Power & Water

Integrity

GE considers the professional behavior of its people and its interfaces in all business relations to be of paramount importance. Improper behavior in business has the potential to jeopardize the image of GE's employees, suppliers, customers, clients and other partners.

Building Success

GE Power & Water is committed to customer success. Key to achieving that success is the application of consistent, effective processes for designing and manufacturing products and delivering services. These processes extend beyond GE Power & Water to include our entire supply chain.

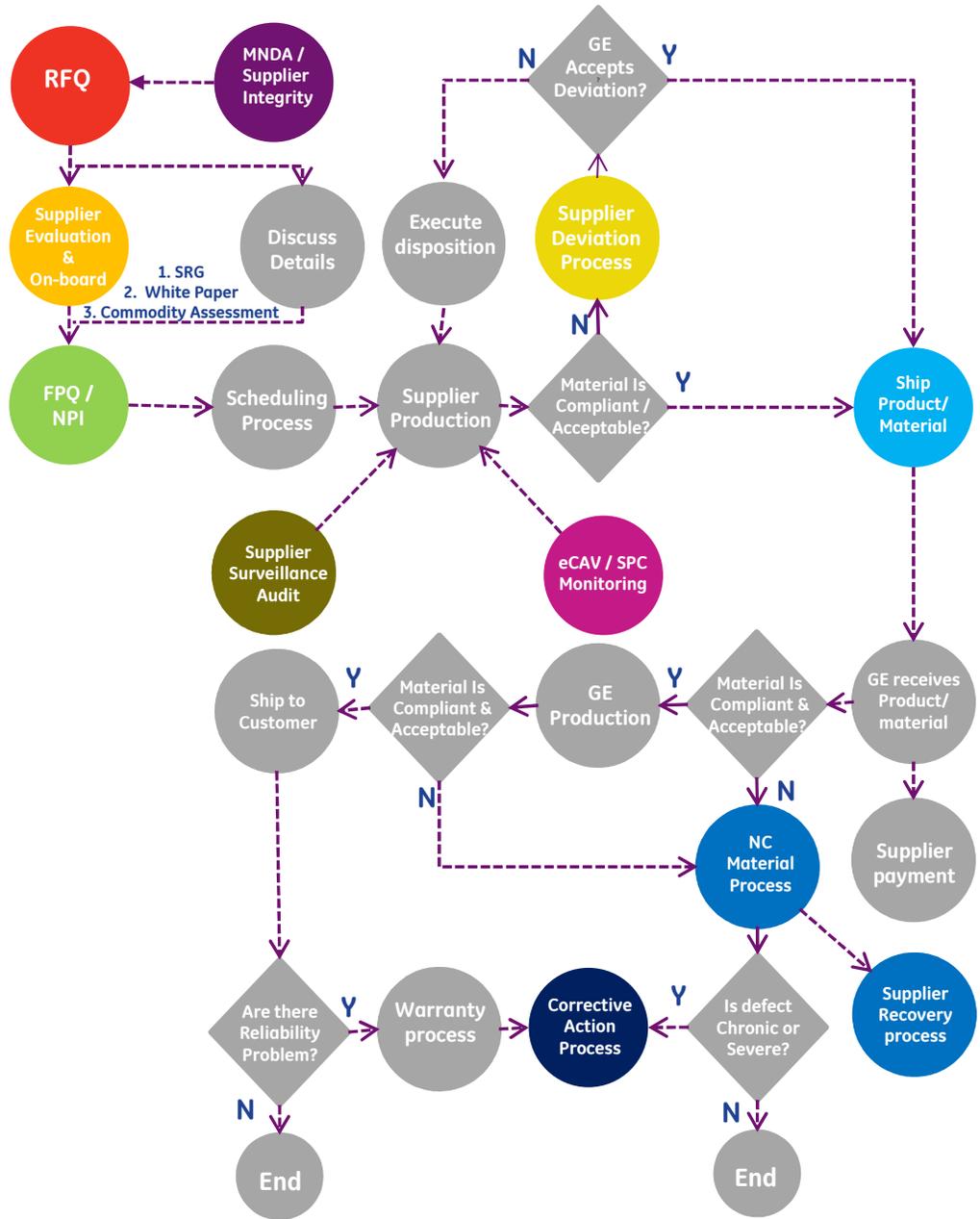
This handbook is intended to explain how each of the key processes involving suppliers works. In the pages that follow, each of these processes is explained in further detail. Please take the time to review these processes. They will be key to your company's effective involvement in the GE – Power & Water supply chain.

If you have any questions, contact your GE Commercial Leader or your GE Supplier Quality Engineer. Thank you for your contributions to our mission of furthering our customers' success.

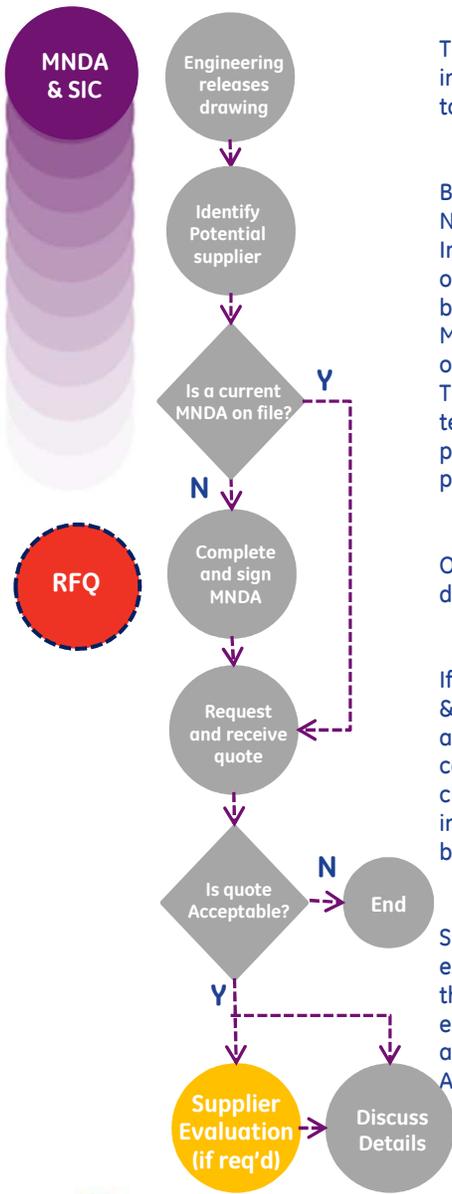


Our Integrated Supply Chain Processes

- The first step we take with any prospective supplier is to obtain a signed **Mutual Non-Disclosure Agreement (MNDA)** between GE and the supplier. Once the MNDA and Supplier Integrity Commitment are on file, we can send the supplier a **Request For Quote (RFQ)**.
- Having identified a candidate company, we take steps to assess the supplier's capabilities, according to our formalized **Supplier Evaluation & On-boarding Process**.
- Once we have determined the appropriateness of forming a commercial relationship with the supplier, we can initiate our **First Piece Qualification (FPQ) / New Product Introduction (NPI)** process, which helps ensure that the products made by that supplier will be right the first time and every time.
- If at any point prior to shipment the supplier identifies a non-conformant condition that it believes may still be acceptable, the supplier can request permission to ship the product, despite its condition, through our **Supplier Deviation Process**.
- Once ready, products are transported to our facility in compliance with the requirements of our **Shipping Process**, which includes requirements related to packaging, bar coding and other activities.
- If a non-conformance is found after a product has been shipped, a **Non-conformance Material Report** will be written against it as part of our Non-conformance Material Process. In cases in which a supplier's defects have significantly adverse consequences, the **Supplier Recovery Process** may be employed.
- If the non-conformances are severe or chronic, the issue may be more formally addressed with our **Corrective Action Process**.
- Throughout the relationship, our **eCAV Monitoring / SPC Process** (as applicable, specific to products) helps suppliers continually strive for improvements that achieve higher levels of customer success.
- The **Supplier Surveillance Audit Process** likewise ensures a continued focus on quality improvement to support customer success.



RFQ Process



The identification of potential suppliers may involve approved suppliers as well as those new to GE – Power & Water.

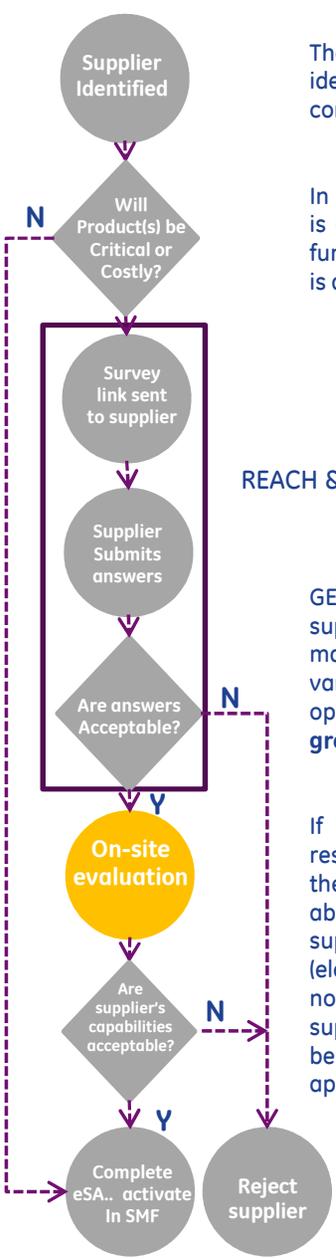
Before proceeding, GE will ensure that a Mutual Non-Disclosure Agreement (MND & SIC) with the supplier is on file. To be current, the MND & SIC must have been signed within the previous five years. The MND & SIC is a document required for any type of collaboration between GE and its suppliers. The document binds both parties not to divulge technical information or any other type of proprietary information to third parties without prior written consent of the other party.

Once MND & SIC is signed by supplier, the drawing can be sent out for quote.

If the quote is found to be acceptable technically & commercially in line with general details such as shipping logistics, agreement to terms and conditions, etc., the process can proceed to clarification of finer purchasing details including initiation of supplier evaluation and on-boarding.

Suppliers of products that involve considerable expense and those that are especially critical to the proper functioning of GE's product will be evaluated in greater depth prior to being approved as a supplier. A commodity Assessment is typically done.

Supplier On-boarding Process



The Supplier Evaluation Process begins with identification of a prospective supplier. A commercial Leader take this step.

In cases in which the product to be supplied is costly or especially critical to the proper functioning of GE's product, greater scrutiny is applied to the supplier evaluation process.

REACH & Compliance Survey

GE personnel then visit the site where the supplier's product(s) are to be manufactured. The evaluation examines a variety of aspects of the supplier's operation. **These aspects are listed in greater detail in the following page.**

If the supplier has provided acceptable responses to all areas of questioning and the total score of the evaluation is at or above the minimum acceptable level, the supplier can be approved through eSA (electronic Supplier Approval Process).. If not, shortcomings can be addressed and the supplier may be reappraised. Once found to be acceptable, the supplier may then be approved.



For a company to become an approved supplier to GE P&W, it must :



Supplier Responsibility Guideline (SRG)

Expectations from Suppliers:

- Compliance with laws and regulations protecting the environment
- Provision of a safe and healthy workplace
- No workers below the legal minimum age or 16, whichever is higher
- No forced, prison, or indentured workers or workers subject to any form of coercion
- Compliance with minimum wage, hour of service and overtime wage laws
- Freedom of association
- No discrimination at work in any form
- No harassment of employees

Key Steps:



NOTE : EHS approval in Gensuite is a pre-requisite for vendor on-boarding. Periodicity of re-audit is based on supplier risk assessment followed by GE Power & Water, time to time.



Supplier Responsibility Guidelines (SRG) Program		Supplier:	Date:
Eyes Always Open - EHS Site Walkthrough Checklist Guidance		Attendees:	
Areas to Look at When Visiting a Supplier Site	Yes or No	SRG Master Checklist Question(s) Ref #	Flag Ref. Auditor Notes
Housekeeping and Working Conditions			
The general work area is clean, organized, free from debris/obstacles and clutter.		2.6;	Red
Illumination and temperature are adequate for the tasks being performed by workers.		2.7; 2.10;	Red
Aisles and walkways are clearly marked, maintained free of debris and not obstructed.		2.6;	Red
There are no slips/trips/fall hazards in the work area (floors not wet/greasy, no extension cords/wiring, no holes etc).		2.6;	Red
Electrical panel boxes and controls are free of obstructions and labelled.			Red
Emergency Preparedness, Fire Prevention & First Aid			
Emergency exit routes are clearly marked (visible signs), illuminated, access is not obstructed and doors not locked.		2.4; 2.5;	Yellow
Emergency map/evacuation routes and information to reach meeting point is displayed/pasted.		2.5; 2.18	Red
Fire extinguishers are placed in the immediate work area (check signs, inspected (see tag) and easily accessible.		2.19;	Red

New Product Introduction / First Piece Qualification Process Flow



NPI/FPQ Process Steps:



This graphic depicts the processes used to manufacture the given product. The more detailed the descriptions of these activities, the more likely any failures can be anticipated and avoided. This document should list all GE reference documents, supplier reference documents, GE material specifications, Equivalent supplier material specifications and list of sub-tier suppliers. Verify by "Walking the Process"

This activity involves verifying that any chemicals accompanying the product when it is shipped to GE Power & Water have been approved by GE Power & Water and accompanied by MSDS (Material Safety Data Sheet). This includes any Chemicals (GE Water), paints, coatings or rust preventatives. Terms such as "additives" or "Pigments" are not acceptable.

With the Process Flow Diagram (PFD) as its basis, this activity considers the various errors that could occur at each process step (the various "failure modes"). The work here involves evaluating the severity of each failure mode's consequences, the likelihood of its occurrence and its detectability prior to the product's release. This aids in identifying and mitigating the most troublesome failure modes.

The means of controlling each product characteristic (and any critical process parameters) are to be formally documented in a matrix. The control plan will include details such as specification limits for the characteristic, the means and frequency of checking the characteristic, and the method of ensuring that the characteristic will be kept in control.

The measurement system for any characteristics defined as Critical To Quality (CTQ) must be validated to have an acceptably small amount of error. The goal is to have measurement error of no more than 10% of the associated tolerance. In the case of a characteristic that is discrete in nature, an Attribute Gage R&R score of 90% is the minimum acceptable standard.

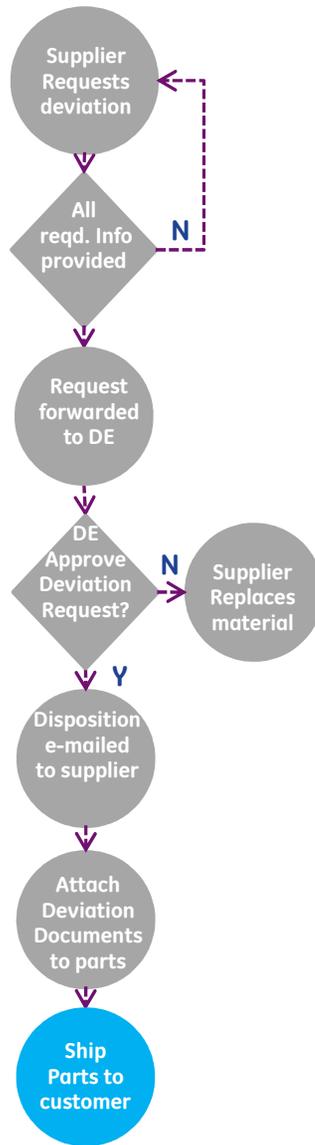
The short-term process capability (Z-score) for all characteristics should be at least 4.0 (implying a long-term capability of at least 2.5). In cases of CTQ characteristics, those that exceed this goal may be inspected on a sample basis, and those not reaching the goal must be checked on a 100% basis.

The First Piece Inspection must be approved by a GE Qualification Team (Supplier Quality Engineer, Design Engineer, Material Process Engineer) prior to parts shipment. The Validation Matrix may include a variety of checks including functional, environmental and reliability testing as well as manufacturability and maintainability considerations.

NOTE : Certain parts may be subject to Post-Validation Requirements (PLQ, Surveillance audits etc.) at some point after initial approval to ensure that process control and process capability are being sustained.



Supplier Deviation Process:



Material and equipments that do not fully conform to GE's engineering requirements must be approved through Supplier Deviation Request (SDR) Process prior to being shipped. Request for deviation using Clearorbit application.

The system sends a notification to the concerned SQE once a deviation request is raised by supplier.

The SQE verifies that all required information has been submitted with the deviation request. If any of this information is missing or unclear, the SQE will obtain clarification before forwarding the request to the appropriate engineer.

SQE reviews and forward Supplier Deviation Request to concerned Design Engineer (DE) for review and disposition.

The responsible engineer makes a disposition of the request as approved or disapproved. If the deviation is disapproved, the supplier will be responsible for replacing the material.

Notification of disposition is e-mailed to the supplier as well as the buyer, the Regional (Pole) Supplier Quality Engineer and business SQE.

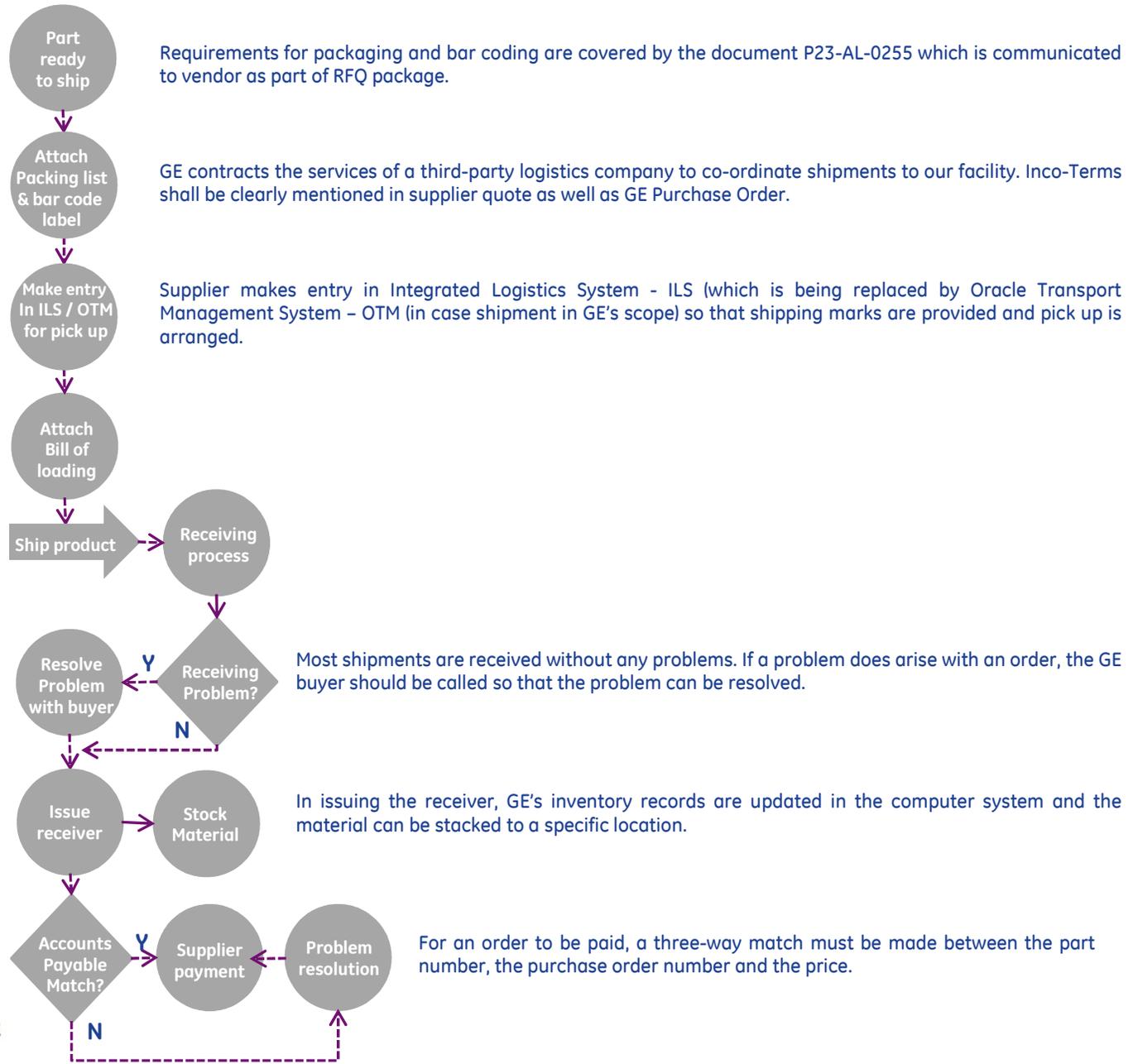
The approved deviation is attached to the packing slip.

Parts are shipped consistent with the shipping process detailed on the following page of this handbook.

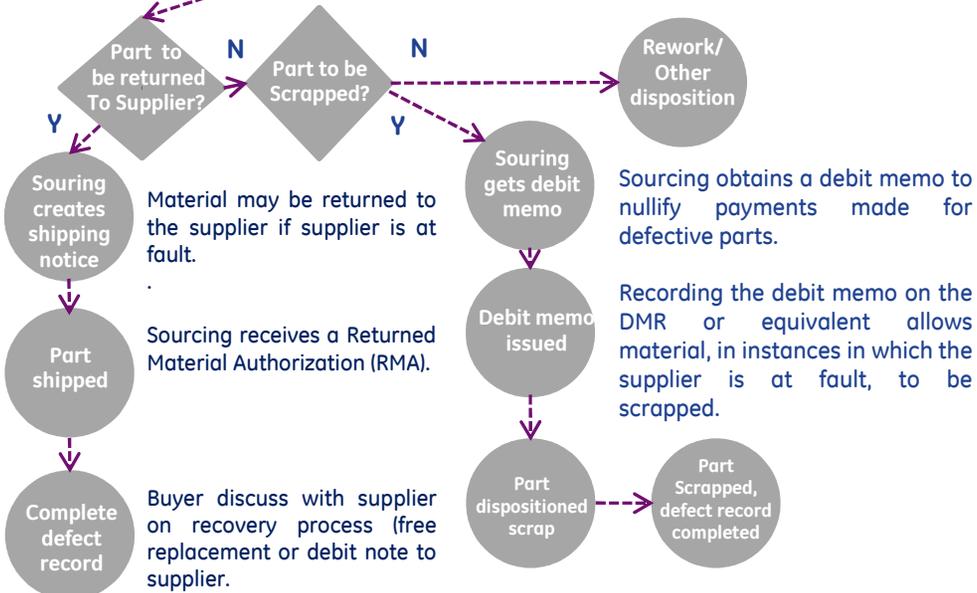
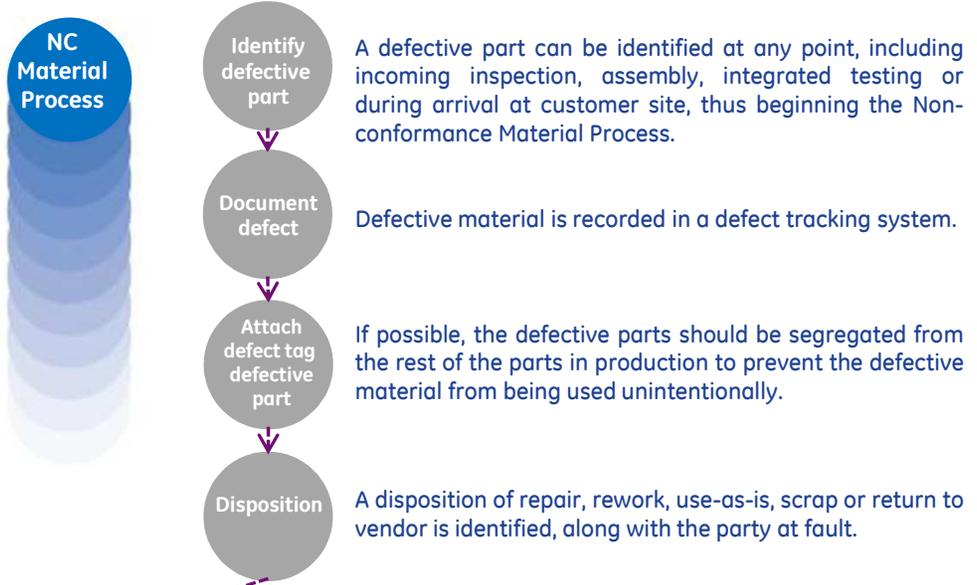


Deviation Process

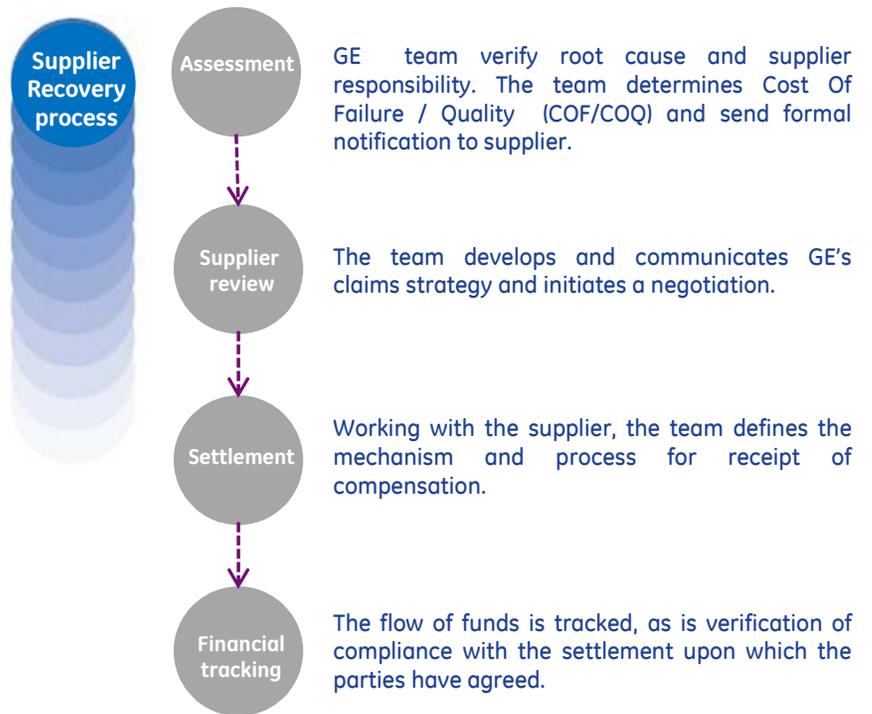
Product Packing, Preservation and Shipping Process



Non Conformance Material & Supplier Recovery Processes

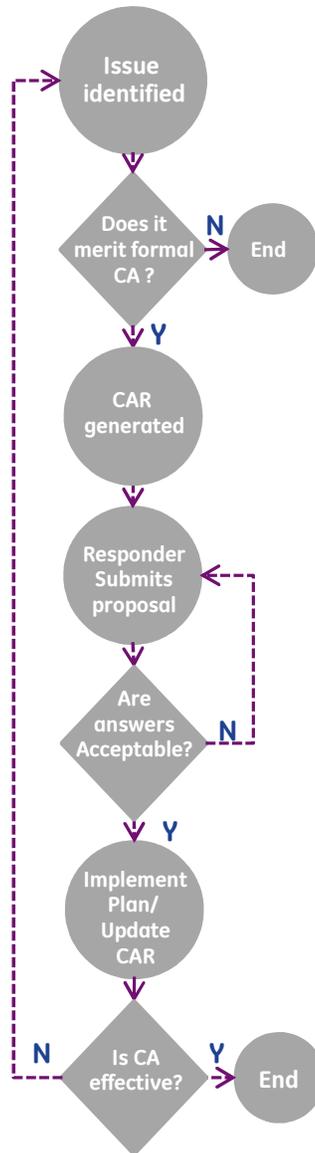


NOTE : GE Power & Water reserves the right to employ the Supplier Recovery Process in any situation where deficient quality of a supplier's products has created adverse consequences to GE's business.



NOTE : GE Power & Water reserves the right to initiate recovery of any losses that occur as the result of defective products or materials shipped by its suppliers. This recovery is not intended as a punitive measure, but rather as a way to hold suppliers accountable for the quality of the products they supply.

Corrective Action Process



Any employee of GE may identify an issue requiring Corrective Action, although an SQE, Manufacturing Quality Engineer or other quality representative most often handles this step.

Corrective Actions (CA) are required for any issues involving product safety, infancy failures, chronic or severe quality problems that escape their area of origin, and deficiencies found during audits.

A Corrective Action Request (CAR) is generated through Clearorbit application. The CAR identifies the nature of the problem as well as when and where it was found. The request also designates who will be responsible for identifying the corrective action to be taken and who will be responsible for approving the plan and its implementation.

The individual who has been assigned the Corrective Action determines the root cause of the problem, the action to be taken in addressing the root cause and the date by which the action will be taken. If the person assigned is not the appropriate person, the Corrective Action can be reassigned.

The person assigned at the time of the CAR's origination as the Plan approver (Usually also the originator) evaluates the response for its acceptability. If the response is rejected, the Responder must modify and resubmit the proposal.

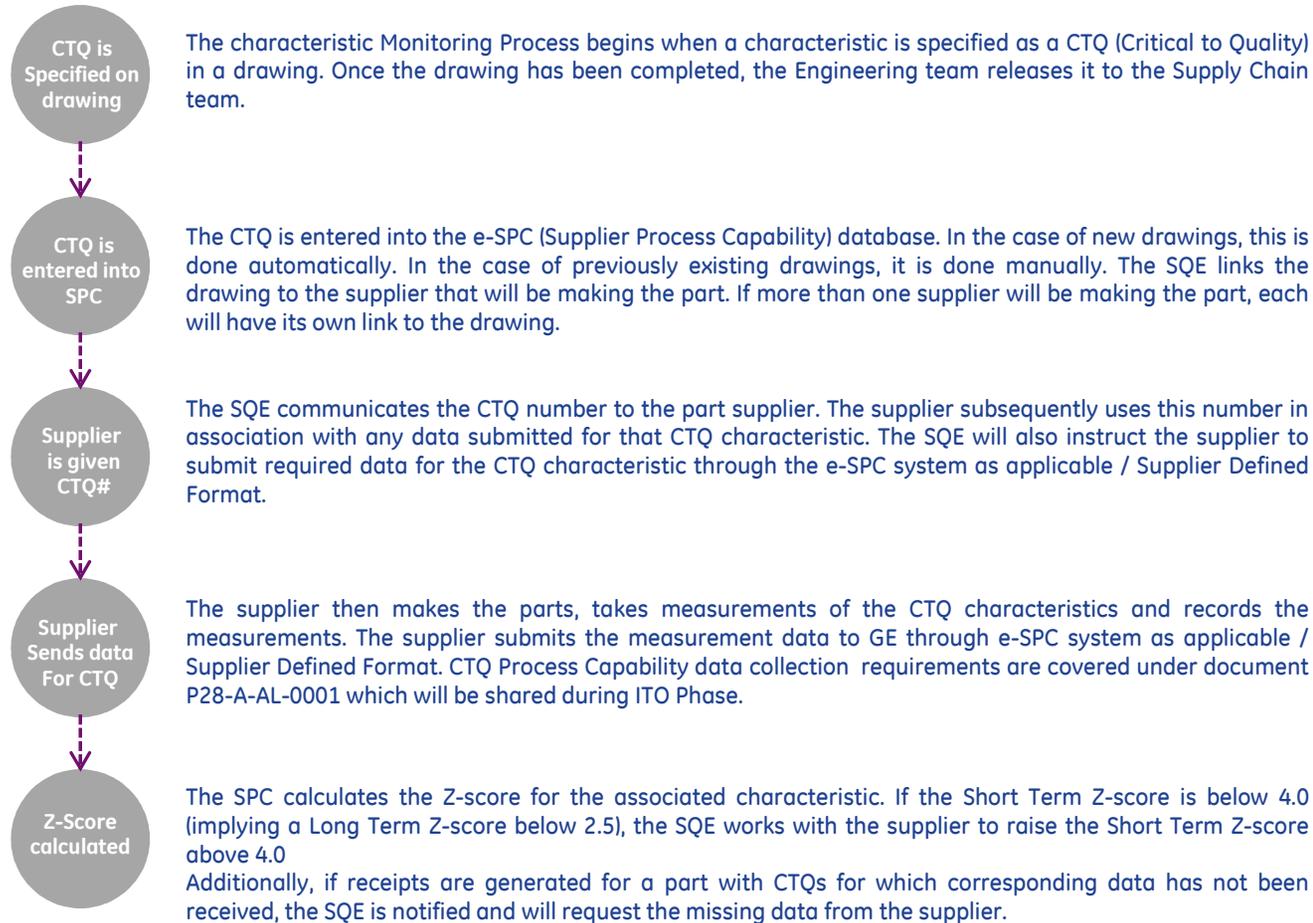
Note that supplier may be required to submit process or product data in order to verify the plausibility of a root cause and the feasibility of corrective action.

Once approved, the plan is implemented and the Corrective Action System updated with this information.

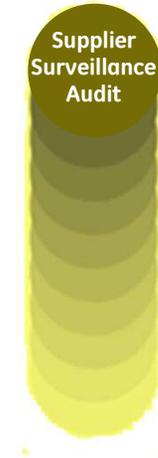
Once implemented, the Corrective Action is evaluated to determine if it is sustainable and whether or not it is effective. If the evaluation reveals the action is no longer being taken or is ineffective, the Corrective Action will be rejected and another CAR will be initiated.



CTQ Monitoring



Supplier Surveillance





In Case of any questions, please reach out to a Commercial Leader or Supplier Quality Engineer in GE Power & Water

