

Stop Ship and Purge (SSP) Process for Hardware

Overview

This document defines the procedure for originating, communicating, and managing local and worldwide stop ships and purges (SSPs).

Audience

This document is for anyone involved with the SSP process.

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PROCESS OVERVIEW

1.1 Definition of SSP Process

SSP process is Oracle's global Emergency Response System for quality problems, managed and owned by Quality and Product Life Cycle and Technology.

- **Stop Ship:** An action performed to prevent the shipment of a product when a quality problem is known to exist, but there is no way of screening good from bad product without impacting shipments. The stop ship can result in customer orders not shipping when expected.
- **Stop Build:** An action performed to prevent building a product when a quality problem is known to exist. Stop Builds will be decided by Product Line Director (PLD) on an individual event basis.
- **Purge:** An action performed when a quality problem exists, and the product can be separated into good and bad categories and cannot be remediated on-site in the factory. The purge can result in customer orders not shipping when expected.

1.2 Purpose of SSP Process

The process ensures the swift and thorough assessment of the problem, swift action to contain the problem, enable production and shipping to quickly resume, and drive resolution through to closure.

- The system is designed to minimize Oracle's costs by temporarily pulling resources or team members from appropriate organizations to quickly prevent quality problems from shipping to customers.
- SSP process uses an online web-based tool called Nonconformance Corrective Action Tool (NCAT) (located within the Oracle Self Service Applications, under the NCAT Quality Workbench Responsibility at: https://global-ebusiness.oraclecorp.com/OA_HTML/AppsLogin) to communicate SSP notices and collect statuses. The tool allows on-line real-time viewing of all SSP notices, statuses, updates, and history.

2. SSP POLICY BIG RULES

The SSP 'big rules' are established to ensure compliance with the SSP and related policies and procedures. Any deviation from these rules or any procedure discussed in this document requires the authorization of a SCO PL&T Vice President.

The rules are as follows:

ACTIONS	PROCESS USED IM/EM	APPROVAL REQUIRED
To stop the production line (Stop Build) for 24 hours	PA or Email	Director
<i>Returning and/or Reworking suspect material in Raw, WIP or FG with no significant impact to ship dates, revenue from customers, or customer satisfaction</i>	PA or Email	Director
To stop build and/or ship for more than 24 hours.	SSP	NPI VP, Production SVP
Reworking suspect material in WIP and/or Finished Goods with impact to ship dates or customer satisfaction.	SSP	NPI VP, Production SVP
To move Raw stock into non-nettable if quarantining suspect material will impact shipment schedules	SSP	NPI VP, Production SVP
To return suspect material to supplier unless supplier has made a request – i.e. Supplier Recalls Supplier SSP Process	SSP	NPI VP, Production SVP
** Note: If suspect material is not yet received in the system -> Reject + Return to Vendor (RTV).		

- SSP communications (both internal and external) are to be treated as Confidential Oracle Restricted. This includes:
 - Meeting notices
 - Meeting minutes
 - Emails
 - Slack messaging by using a Slack Private Channel and following the IT Security guidelines for usage
- Suppliers and External Manufacturers (EMs) are required to notify Oracle Engineering of any quality issue that impacts product they shipped to Oracle or Oracle's External Manufacturers (EMs) or directly to Oracle customers and/or Data Centers. SCO Engineering then performs a technical assessment to determine if any Oracle SSP activity is required. Suppliers are to follow PROC-10051- External Manufacturing Quality Escalation Requirements. This procedure describes the expectations of Oracle's External Manufacturers (EM) and their responsibilities to control quality via line stops on SMT, Board Test, System Test and Rack manufacturing lines building Oracle products.
- This document also covers the communications required when experiencing quality issues that may impact Oracle's ability to deliver customer orders on time or with quality that doesn't meet Oracle expectations.

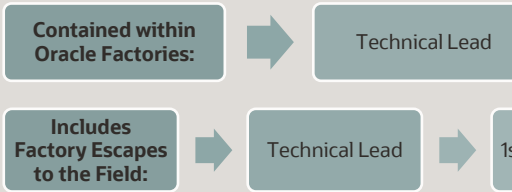
4. Technical assessment is required either prior or in some cases where expedient actions are necessary, in conjunction with the SSP pre-assessment. Any issue that identifies at-risk material in the supply chain and meets the following criteria must initiate the technical assessment process and have the issue logged in NCAT:
 - Product safety does not meet Oracle standards.
 - Product quality impacts customer satisfaction.
 - Product or process quality is below Oracle's standards and removing the suspect product can impact the scheduled customer shipments.
5. During technical assessment, a determination of the customer impact is made and a recommendation from a quality perspective whether to initiate an SSP and documented in the NCAT with technical assessment meeting minutes attached.
6. During pre-assessment, the Crisis Manager must lead the purge team through a discussion of all possible inventory locations to determine where the affected material resides, and to scope the purge activity, including impact to the customer, impact to the business and any associated field remediation if required.
7. All SSP must be approved by the PL&T VP before it is distributed to the sites for implementation.

When the determination from the technical assessment is that there will be **no** SSP or Purge actions, a notification will go to the VP/PLD. The VP/PLD is expected to provide an approval or notification of other actions needed.

Note: There should be adequate information with the notification as to why the determination was made. Using the Technical Assessment form is a tool to assist in the appropriate information needed.
8. All Suppliers, EMs, and Oracle-owned or -managed sites must receive formal SSP notification from Oracle (through NCAT) in order to officially perform a SSP activity. Any informal request in advance of a formal purge from Oracle to stop shipment or purge parts must be rejected by the supplier, EM, or Oracle owned or managed site until the NCAT SSP notice is received, or, for Emergency situations, SCO PL&T Director – 24hr or VP e-mail approval.
9. All actionee sites are required to confirm implementation of the purge at their site within 24 hours of receiving the notice (and immediately request clarification if they are in anyway uncertain or unclear on what actions to take):
 - Internal actionees must confirm through NCAT by changing the status to **'received'** or **'in process'**.
 - External actionees must confirm through Quality Stop-ship and Purge Portal by changing the status to **'received'** or **'in process'**.

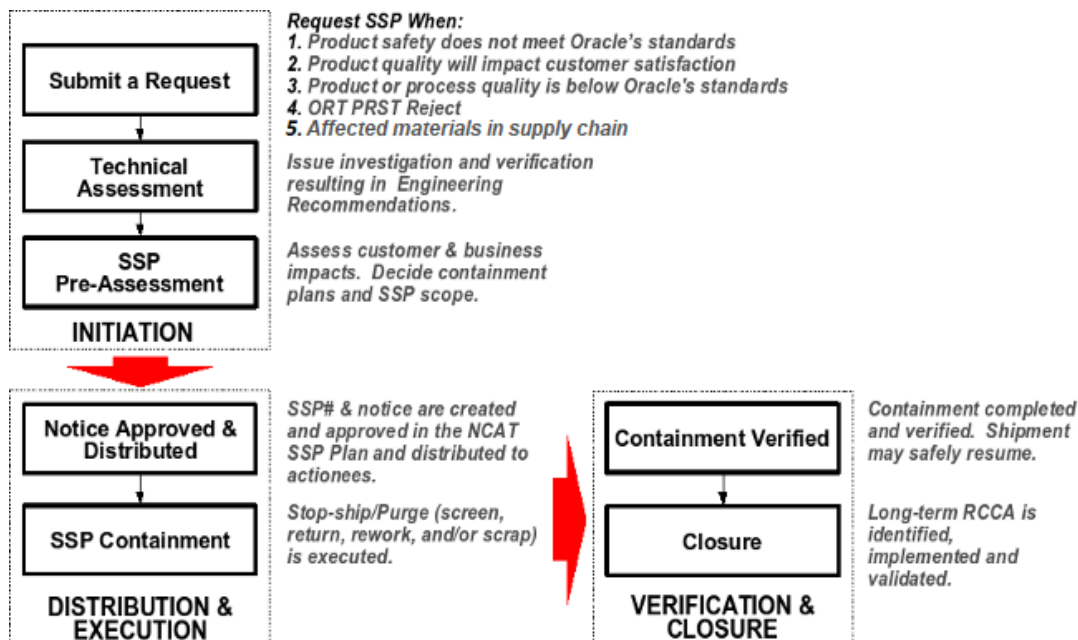
10. If a partial or no purge waiver is approved and the issue results in an unexpected level of customer issues, an immediate SSP re-assessment must be completed by Operations (Ops) Engineering, Ops Program Manager (PM), and SSP PM to determine if additional SSP or field activity is required.
11. On-going reliability test (ORT) probability ratio sequential test (PRST) rejects require a SSP pre-assessment and any decision not to purge requires an ORT waiver via NCAT as discussed in the ORT policy (refer to *Ongoing Reliability Testing (ORT) Policy*, 914-1736).

3. PROCESS STEPS

ACTION	RESPONSIBILITY	CONSULTED	REFERENCE
Request submission	Anyone	SSP PM	Section 4, Initiation
Technical assessment	Technical Team Leader	SSP PM, Technical Support	Section NOTE 1: , 4.2 Technical Assessment Meeting
SSP pre-assessment	Crisis Manager	Technical Team Leader, SSP PM	Section 0, 4.3 SSP Pre-Assessment Meeting
Approval	Crisis Manager, PLD and PL&T VP who own the affected product line(s).	SSP PM	Section 0, 5.1 SSP Approval
Notice distribution	Crisis Manager	SSP PM	<ul style="list-style-type: none"> Section 0, In the event there is a Technical / the following notifications should happen  <pre> graph LR A[Contained within Oracle Factories:] --> B[Technical Lead] C[Includes Factory Escapes to the Field:] --> D[Technical Lead] D --> E[19] </pre> <ul style="list-style-type: none"> 5.2 SSP Notice Distribution Section 0, 5.3 SSP Notification
Execution or containment	Crisis Manager	SSP PM	Section 0, 5.4 SSP Execution or Containment
Amendments	Crisis Manager	SSP PM	Section 0, 5.5 SSP Amendments
Containment verified	Crisis Manager	SSP PM	Section 0, 6.1 SSP Containment Verified

Long-term corrective action	Crisis Manager	<i>Technical Team Leader, Product Team</i>	<i>Section 0, 6.2 SSP</i> Closure
Closure	Crisis Manager	<i>Technical Team Leader, SSP PM</i>	<i>Section 0, 6.2 SSP</i> Closure

Figure 3-1 SSP Process Flow Overview



4.INITIATION

Anyone who identifies a product quality issue can initiate a SSP request by contacting and notifying the Technical Team Leader (Engineering Manager or designee responsible for the part or process causing the problem) on one or more of the following conditions:

- Product safety does not meet Oracle standards.
- Product quality impacts customer satisfaction.
- Product or process quality is below Oracle's standards and removing the suspect product can impact the scheduled customer shipment.
- In case of an ORT PRST reject (refer to *Ongoing Reliability Testing (ORT) Policy*, 914-1736)

4.1 Temporary Stop Build

If an Oracle Ops Engineer (Product Engineer, Supplier Engineer, Test Engineer, and so on) identifies that one of the product quality issues identified in *Section 4, Initiation*, above, is being introduced by an ongoing production process, a temporary 'Stop Build' can be invoked at an EM, Joint Development mode (JDM), or Oracle internal manufacturing site.

The Stop Build must comply with the following steps:

1) Identifying the Issue:

- When an issue is detected on the manufacturing line, the person who identified the issue must immediately notify his/her floor Lead/Supervisor who will contact the responsible Ops Engineer.

2) **Initiating a Stop Build:**

- The responsible Ops Eng must immediately notify the Product Line Director (PLD) and the Ops PM. The Ops PE generates an approval request and will send it to the appropriate PLD for approval. Only ONE Stop Build for any issue. Continuing holds beyond 24 hrs requires standard SSP process and PL&T VP's approval.
- The approval request will consist, at the minimum, of the following information (formal Stop Build approval template below):
 - Issue description
 - Where the issue was detected (what step of the mfg process or where in the supply chain the issue was found)
 - Which factory process steps are stopped (i.e., Assembly, Test, Pack-out)
 - Impact to customer if this suspect material was shipped
 - Any potential impact to the manufacturing build schedule
- The responsible Ops Engineer will open a NCAT and list down 'Stop Build' in ACTIVITIES text field.

3) **Approval & Notifications:**

- PLD will be notified and approval is required.
- SCO PL&T VP will be notified of the 'Stop Build', but approval is not needed.
- SCO Supply Management Execution Manager will be notified.
- The responsible PE or PM will attach PLD approval email in the NCAT.

4) **Implementation of Stop Build**

- The production stop can last no longer than 24 hours before either resuming production or proceeding with a formal SSP.
- A Stop Build can't result in removal of material from a nettable inventory location. Material can be reworked in raw or WIP per a PA.
- The production stop occurs only at the production step or steps where the quality problem is suspected to be originating. If the issue is discovered during IST, all steps after IST will continue as scheduled.
- A temporary Stop Build cannot stop shipment of Oracle, EM, or a Supplier's finished goods. If a finished goods stop ship is required, the formal stop ship process must be followed.

5) **Stop Build Approval Template**

- NCAT Number:
- Product(s):
- Issue Description:
- Where in the mfg process the issue was detected:
- Where in the mfg process does the stop build need to be initiated, so the issue can be addressed:
- Customer impact:
- Root-cause, if known:
- Potential build schedule impact, if known:

NOTE 1: A temporary 'Stop Build' cannot stop shipment of Oracle or EM finished goods. If a finished goods stop ship is required, the formal stop ship process must be followed.

4.2 Technical Assessment Meeting

The originator contacts the appropriate Technical Team Leader who coordinates with the appropriate technical parties to hold a Technical Assessment Meeting with the purpose of the following:

- Verifying the quality problem
- Assessing severity, impact, and risk to the customer
- Conducting a pre-screen(s) if necessary, to determine the severity of the problem
- Understanding exposure:
 - Exposure to Oracle's on-hand or infeed of material
 - Field Escapes
 - Customer, Data Center, Services Regional Locations (RSL)
 - Ensure Ops Team engages services readiness manager (SRM)
- Deciding on the appropriate actions

The technical team is comprised of the following:

- Appropriate technical personnel or engineers required to obtain data, verify the issue, complete the assessment activities, and take corrective actions
- The technical team members are identified by the Technical Team Leader and can include, but are not limited to: Process Engineers, Supplier Engineers, Component Engineers (must include Oracle Component Engineers (OCE) when there is a component issue), Quality Representatives, Design Engineers, Compliance Engineers, Software Engineers, Test Engineers, and Service Engineers.

Note: For urgent and clear technical issues, Technical Assessment and SSP Pre-Assessment may be performed in one meeting.

If the recommended corrective actions do not include an SSP, the technical Team Leader must perform the following:

- Enter the issue in NCAT and complete the web-based Technical Assessment Form in NCAT.
- Drive the completion of the recommended actions.

- Obtain ***the following Approvals:***
 - ***PLD - if no field escapes and the issue is contained within Oracle Factories/EMs***
 - ***PLD and VP - if there are field escapes***

If the corrective actions include a recommendation to issue an SSP, the Technical Team Leader must perform the following:

- Enter the issue in NCAT and complete the web-based Technical Assessment Form in NCAT.
- Contact the Crisis Manager and SSP PM to request a SSP pre-assessment:
 - In case of a platform specific SSP, the Ops. Program Manager must be contacted.
 - In case of a cross platform commodity SSP, the Supplier Program Manager must be contacted.

4.3 SSP Pre-Assessment Meeting

SSP Pre-Assessment Meeting is required when the Technical Team recommends **a SSP** be initiated to address a quality problem.

1. The Technical Team Leader contacts the Crisis Manager and SSP PM to request a SSP Pre-Assessment Meeting and provides a completed Technical Assessment form.
2. The Crisis Manager, assisted by the SSP PM, schedules a SSP Pre-Assessment Meeting.
3. The SSP Pre-Assessment Meeting notice is emailed to the pre-assessment alias **by the Quality/SSP PM** and to any other Pre-Assessment Team Members identified by the Crisis Manager.

The Pre-Assessment Meeting is a meeting of the Pre-Assessment Team and Technical Team, led by the Crisis Manager with the purpose of the following:

- Understanding the quality problem and Technical Team's recommended actions
- Assessing the technical impact and exposure against the business impact of the recommended actions
- Final evaluation to determine if a SSP is the appropriate solution
- Action planning (containment plan, corrective action, and recovery plan)
- Determining if root cause analysis is necessary before containment
- Defining SSP scope and containment plans and assessing customer impact if a partial or no purge is implemented

NOTE 2: SSPs are business-critical; the related meetings, actions, and so on, take priority over routine activities.

4.4 Pre-Assessment Team Members

The Pre-Assessment Team consists of the following functional roles at a minimum but not limited to:

- Crisis Manager
- Technical Team Leader
- SSP PM
- Business Units (including Product Design Engineering and internal Cloud BUs)

NOTE 3: This is Ops PM's responsibility to engage the proper stakeholders in Cloud BU; However, Cloud BU is to take lead and own Cloud Data Center inventory decision. SCO PL&T Ops team will support Cloud's decision and actions.

- Supplier Management
- Direct Procurement
- Supply Chain Ops in support of product/issue
- Manufacturing Representatives:
 - Oracle
 - External Manufacturer(s)
- Logistics (if applicable)
- Services Readiness Manager (SRM) (if customers or RSL FRU stock is impacted)
- Marketing (if applicable)
- Legal (if applicable)
- Systems Quality (Hardware Systems Quality Team)
- SCO Product Line Director or Commodity Director
- Others (the Crisis Manager can identify other required team members from the organizations involved or affected)

General roles and responsibilities of the SSP Pre-Assessment Team are the following:

- Gather and provide information, as representatives of their organizations
- Communicate information from pre-assessments and SSPs to their organizations
- Ensure completion of actions assigned to their organizations and that the

status is reported

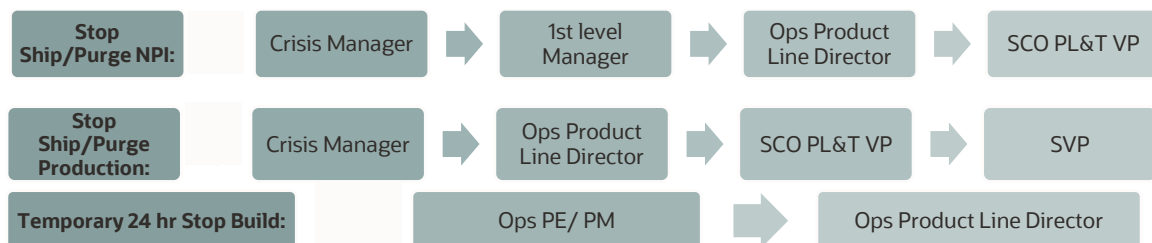
- Attend Pre-Assessment and SSP Meetings until actions assigned to their organizations are complete

NOTE 4: If a decision is made to implement a SSP, the Pre-Assessment Team becomes the SSP Team.

5. APPROVAL, DISTRIBUTION, AND EXECUTION

5.1 SSP Approval

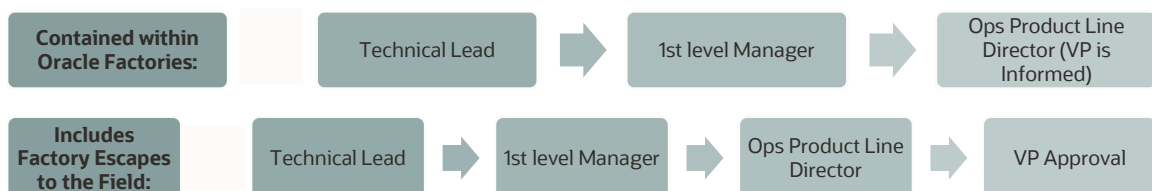
When the SSP Pre-Assessment Team recommends proceeding with a stop-ship or purge, the following approvals are required for New Product Introduction (NPI) and Sustaining (Production) products:



- The Crisis Manager with SSP PM's assistance is responsible for completing the SSP approval request template (refer to *Stop Ship and Purge Approval Form*, 913-3777). The complete approval request is then submitted to the SCO PL&T Management chain (eventually to the SCO PL&T VP) for approvals through email.
- If the SCO PL&T VP approves the SSP, SSP PM documents the approvals in NCAT and proceeds with completing and distributing the SSP Notice in NCAT SSP Plan.

NOTE 5: Every SCO PL&T VP approval request must include impact of the SSP to scheduled shipment dates (that is, lead-time predictability). Refer to *Stop Ship and Purge Approval Form*, 913-3777.

In the event there is a Technical Assessment Decision to NOT initiate an SSP the following notifications should happen:



5.2 SSP Notice Distribution

When the decision is made to proceed with a SSP, it must be formally documented and approved within NCAT. NCAT is used to control and coordinate all aspects of a SSP from distribution to closure.

NOTE 6: If the SSP is not documented in NCAT SSP, the process is not official.

The SSP PM, with the assistance of the Crisis Manager, creates the form in NCAT. The Crisis Manager is responsible for verifying that the information contained in the Stop Ship and Purge child plan is complete and accurate.

Two approvals are required for every SSP Notice distribution in NCAT: the approvals of the Crisis Manager and the Product Line Director or Global Commodity Director for Commodity SSP. In the event that there is no specified Commodity Director, the director responsible for managing those varied commodities must cover that role. The director can, if desired, delegate this accountability to the Commodity Manager.

The content of the SSP form reflects information and plans from the Technical Assessment and Pre-Assessment Meetings, and documents specific SSP actions assigned to designated actionees for each affected area or site. This information can be found in SSP Affected sites child plan in the tool.

Site Instructions must be clear, detailed and specific to each affected site if different from site to site. They must not leave anything for interpretation allowing the sites to potentially misinterpret the instructions. Site instructions are usually created/provided by the Technical Lead. If provided by the Crisis Mgr. they must be reviewed & approved by the Technical Lead. All site Instructions must also be reviewed & approved by the Technical Lead Mgr. to ensure they meet the above criteria.

For each affected area or site required to take action, two actionees are identified, a primary and a back-up, in the event the primary actionee is absent.

Once the form is created and all of the relevant information and instructions entered, a click of a button initiates a NCAT generated email requesting approval.

Once the notice is approved in NCAT, the tool automatically distributes an email version of the notice to the assigned actionees for action.

5.3 SSP Notification

NCAT sends email notifications to the assigned actionees when:

- A new SSP Notice is approved and distributed for action.
- An amended SSP Notice is approved and distributed for action.

On receipt of the SSP Notice, the designated actionees are responsible for the following:

- Driving and ensuring swift completion of the actions required within their organization, plant, or area according to local processes
- Entering the purge or screening results, quantities, and status updates in

NCAT for internal actionees (that is, Oracle employees) and through Quality Stop-Ship and Purge Portal for external actionees (that is, EM's employees)

Anyone with access to NCAT can review the status of any assigned purge action by going to the **SSP Affected Sites Plan** within NCAT.

5.4 SSP Execution or Containment

SSP execution starts right after the SSP Notice is distributed, and managed as follows:

- The Crisis Manager schedules and hosts the SSP Status Meetings as required and drives SSP activity to ensure expedient resumption of shipments and recovery.
- SSP Team Status Meetings are conducted until all assigned purge actions are complete.
- When Executive Management has requested regular updates, the Crisis Manager publishes Executive summaries regularly (determined between Crisis Manager and requestor) to a purge specific alias and the Management Team until the purge is released globally until final closure. Updates can be via email and/or posts on confluence sites.
- The general responsibilities of the SSP Team are the following:
 - Attending meetings until actions assigned to their organizations are complete
 - Gathering or providing information for the SSP Team
 - Communicating SSP information to their organizations
 - Ensuring swift completion of the actions assigned for their organizations
 - Ensuring that the status of their organization's actions is reported

5.4.1 SSP Execution Requirements for Supply Chain Areas

SUPPLY CHAIN AREA	REQUIREMENTS
EMs or Suppliers	<p>For products built by EMs or Suppliers, follow the standard SSP origination process with the following exceptions:</p> <p>Distribution: The Crisis Manager is responsible for ensuring that appropriate information is supplied to EM to enable them to execute the purge.</p> <p>Implementation:</p> <ul style="list-style-type: none">• A Supplier Crisis Manager can be selected to lead SSP activities at the supplier's site, and act as the Supplier's SSP Team Representative.

- EM or Supplier actionees are required to confirm implementation of the purge at their site within 24 hours of receiving the notice. A confirmation must be sent through email to the SSP Program Manager.
- The Supplier Crisis Manager schedules local meetings and selects a team to execute the assigned actions.

NOTE 7: The Supplier Crisis Manager can also be the SSP Crisis Manager.

- The Crisis Manager and/or the Supplier Crisis Manager are responsible for working with the EMs or Suppliers to ensure that actions are carried out in a timely manner and that screening results and other input are recorded into NCAT through Quality Stop-ship and Purge Portal and presented to the SSP Team.
- Oracle's EMs production, dekit, reconfiguration, or rework processes must be capable of performing an ongoing screen for material affected by purges, which already shipped to the field at the time of the purge.
 - In the event that a supplier or sub-tier supplier must ship in purge affected material sometime after a purge occurred, Oracle's EMs or Suppliers must have a process for detecting and preventing such material being used in fresh build.
- Oracle's EMs or Suppliers must maintain and continuously update a historical list of purge affected material (that is, blacklist material). A list of previously purged parts for reference by suppliers that were not notified during the official NCAT SSP notice is distributed to the EM personnel through email.

Oracle
Manufacturing

- Oracle Manufacturing Representative(s) assigned to the SSP team must ensure that the suspect inventory within the respective manufacturing areas or environment is identified. This inventory must be addressed appropriately in the containment plan developed by the SSP Team. This includes inventory in raw or loose stock, rework, work in progress (WIP), MRB, dekit, ORT, and reliability qualification test (RQT).
- The Oracle manufacturing plant can apply blacklisting within Manufacturing Execution Systems (MES) against the purge affected parts as a means of preventing escape. Where applicable, MES can be used to blacklist against all serial numbers quoted within the purge form. For detailed instructions on how to blacklist parts, refer to the *Blacklisting Training Guide*
- All rotational equipment must be assessed when identifying potentially suspect product or exposure and developing appropriate containment actions. Assigned SSP action requirements within NCAT must also identify the containment actions for potentially affected rotational equipment. Areas containing rotational equipment are: ORT, RQT, and rotational equipment program (REP) laboratories (G-Labs).

	<ul style="list-style-type: none"> Actionees are required to confirm implementation of the purge at their site within 24 hours of receiving the notice. A confirmation must be entered in NCAT by changing the status to 'received' or 'in process'.
Hardware Engineering Labs or Oracle Cloud Data Centers	<ul style="list-style-type: none"> Product in any Engineering Labs or Oracle Data Centers inventory location or areas are considered to be 'field' inventory (that is, Customer inventory). The containment action must be assigned and documented within NCAT SSP notice for any suspect inventory identified in the Engineering Labs or Oracle Data Centers inventory locations. Actionees are required to confirm implementation of the purge at their site within 24 hours of receiving the notice. A confirmation must be entered in NCAT by changing the status to 'received' or 'in process'.
Field (Customer) Remediation	<ul style="list-style-type: none"> When the technical team recommends containment action to address affected customers and end-users, the Service Readiness Manager for the product is responsible for identifying, developing, and driving an appropriate approved field remediation and communication plan using the appropriate Service processes. The appropriate Systems Quality Representatives must be engaged by the SRM to assist with implementation of the field action plan and ensure that appropriate approved Communications are developed and distributed in accordance with BU processes. The field action plan must be documented in the comment section of the NCAT SSP notice. The Crisis Manager is responsible for confirming that the field action plan is implemented prior to closing the SSP.

5.4.2 SSP Team Information and Responsibilities

SSP TEAM	RESPONSIBILITIES
SSP PM	<ul style="list-style-type: none"> Trains and coaches the Crisis Manager Monitors and provides process guidance through all stages of the process Creates SSP notice (with the support of Crisis Manager) Ensures that SSP actions are appropriate to impact and scope Monitors SSP actions for timely completion through to closure Approves 'SSP Verification Complete' status Provides and distributes SSP metrics and analysis Drives and manages the SSP process or system to: <ul style="list-style-type: none"> Ensure compliance and effectiveness Drive continuous improvement Provide coaching, training, and consultation

	<ul style="list-style-type: none"> • Maintains the master list of blacklisted parts and communicates them to Suppliers
Crisis Manager	<ul style="list-style-type: none"> • Identifies specific SSP Team members from each Org • Determines frequency of SSP Status Meetings • Schedules and leads the SSP Status Meetings • As required, distributes an executive summary to the Management Team and the purge specific until SSP status changed to 'SSP Verification Complete'. The Executive summary must include the purge number, the Crisis Manager's name, the part number and platform affected, the problem description, the corrective action (short term and long term), the action plan (current status, recovery plan, or tentative recovery plan), and the latest status update. • Determines required frequency of technical status updates • Supports SSP PM in creating SSP notice • Approves all versions of the SSP notice • Verifies that all actions initiated as a result of the SSP are completed prior to changing their status to 'SSP Containment Verified' • Conducts SSP postmortems as required
Technical Team Leader, Technical Team	<ul style="list-style-type: none"> • Raises an NCAT and provides the Technical Assessment detail in NCAT prior to pre-assessment and drives the RCCA (tracked in NCAT) to closure • Provides customer risk assessment • Recommends an appropriate field action plan • Determines root cause • Develops corrective and preventive action plans • Provides information for FAB or any field notification required • Publishes regular technical statuses to the Pre-Assessment Team • Provides information required for NCAT closure
SCO Engineering	<p>Determines quality and reliability impact, and provides the following:</p> <ul style="list-style-type: none"> • Defects or defects per million (DPMs) • In-process or DPM trend analysis • Exposure to manufacturing, labs, and dekits • Product containment • Screen-ability

Services SRM	<ul style="list-style-type: none"> • Attends SSP meetings as necessary when customers or SVCS FRU stock is impacted by the issue • Determines field install base impact and worldwide FRU inventories • Leads appropriate field action plans, such as GSAP and Field Action Bulleting (FAB) • Engages necessary groups to implement field action plan (Systems Quality, Service Logistics, and so on) • Reports closure of field action plan to Crisis Manager and SSP PM prior to closing the SSP
Direct Procurement, Supplier Management	<ul style="list-style-type: none"> • Determines parts affected (raw, WIP, FGI, or supplier) • Determines open purchase order, worldwide inventories, build plan, and replacement or alternate parts availability • Changes available to purchase (ATP) rules • Transfers or dispositions inventory • Leads investigation and resolution at supplier • Provides supplier with instructions • Provides supplier status updates
Legal Representative (optional)	Evaluates potential legal implications

5.5 SSP Amendments

SSP execution and other instruction revisions are made by amending the notice.

- The Crisis Manager, with the assistance of the SSP PM, amends the SSP notice in NCAT and revises the appropriate sections or areas of the notice. This spawns a new SSP, keeping the old base number, and increments the revision level.
- Amendments require only the Crisis Manager's approval.

NOTE 8: Any amendment that can result in impact to the scheduled shipment dates (that is, lead-time predictability) must be approved by the SCO PL&T VP.

- Once approved, NCAT distributes a text copy of the amended notice to the actionees for action. On receipt of the amended notice, the designated purge actionees must once again take action based on the amended purge instructions, provide status, and update NCAT (directly or through Quality Stop-ship and Purge Portal).

5.6 Blacklisting

Oracle's EMs or Suppliers must maintain and continuously update a historical blacklist material. A list of previously blacklisted parts for reference by suppliers that were not

notified during the official NCAT SSP notice is distributed to the EM personnel via this notification posted on AQP site. EMs must blacklist those identified affected parts in all of their manufacturing sites that manufacture Oracle products. In the event that a supplier or sub-tier supplier ships in blacklist material(s) sometime after a purge occurred. Oracle's EMs or Suppliers must have a process for detecting and preventing such material being used in fresh builds and rework products.

Oracle's Internal Manufacturing (for example HOPS) and EM production, dekit, reconfiguration, or rework processes must be capable of performing an ongoing containment for material affected by purges, which already shipped to the field at the time of the purge.

5.6.1 Internal Manufacturing

The manufacturing plant can apply blacklisting within MES against the purge affected parts as a means of preventing escape. Where applicable, MES can be used to blacklist against all serial numbers quoted within the purge form. Blacklist is accomplished by uploading a spreadsheet of blacklisted serial numbers or single serial number against a Work Order. Blacklisting enables some MES-based transactions, but prevents the unintended release into the revenue stream. For SSP, affected parts are identified and blacklisted by the Quality department. For detailed instructions on how to blacklist parts, refer to the *Blacklisting Training Guide* [SSP Training Guide](#)

5.6.2 External Manufacturing

Oracle's EMs or Suppliers must maintain and continuously update a historical list of purge-affected material (that is, blacklist material). A list of previously purged parts for reference by suppliers that were not notified during the official NCAT SSP notice is distributed to the EM personnel through email.

EMs must blacklist those parts in all of their manufacturing sites and in-transit that manufacture Oracle products. In the event that a supplier or sub-tier supplier ships in purge affected material sometime after a purge occurred, Oracle's EMs or Suppliers must have a process for detecting and preventing such material being used in fresh builds and reworked products.

6 VERIFICATION AND CLOSURE

6.1 SSP Containment Verified

When all affected areas or plants have completed their actions, the actionee changes the overall status of the SSP to '3 – Complete', and notifies the Crisis Manager and the SSP PM. This indicates full containment (no further screen or purge required) and the SSP's status can be formally changed to '**SSP Verification Complete**' by the Crisis Manager or SSP PM.

Additionally, the following info must also be documented in NCAT SSP Plan:

- If an engineering change order (ECO) and/or FAB is required as a result of this purge, the ECO and/or FAB number must be entered.
- Decisions regarding required field action must also be documented in this section. It is the responsibility of the SRM to provide details on the finalized

field action plan recorded in NCAT.

NOTE 9: The Crisis Manager must verify that all containment actions initiated by the SSP are completed before approving the status change to 'SSP Verification Complete'.

When both the Crisis Manager and SSP PM approve within NCAT, the overall status of the SSP changes to '**SSP Verification Complete**'. This indicates that shipments can safely resume without further screen or purge activity.

6.2 SSP Closure

Closure requirements:

- SSP status is marked as 'SSP Verification Complete' in NCAT
- Technical Lead: Confirms that all SSP related activities have been completed (including any/all Quarantine/Purge/Blacklist/ Rework activity for all affected material within the supply chain) and that the necessary associated documents have been uploaded to the NCAT/SSP (i.e., Associated S/N lists for any/all of the above).
- The **NCAT should have comprehensive RC/CA/CA Validation & Associated 8Ds** and have been uploaded to the NCAT/SSP accordingly.
- RCCA is completed and validated as follows:
 - The root cause identified and verified.
 - The long-term corrective action that **prevents** the recurrence of the same or similar problems is implemented.
 - The implementation of the long-term corrective action is verified as **effective**.
- Demonstrated proof by the supplier or sub-tier that CA Validation is in place and approved by Oracle (i.e., FAI's or process improvement validation and/or training validation, etc.)
- The Technical Lead has reviewed this data with their direct Mgr. and an email from their manager stating they have reviewed the associated material, believe the **NCAT/SSP RC/CA/CA Validation & Associated 8Ds** are comprehensive & complete and that the NCAT/SSP is in fact ready for closure.
- Once all of the above is in place and has been confirmed, the associated NCAT/SSP can be closed.

SSP closure is the joint responsibility of the Technical Team Leader and the SSP PM:

- The Technical Team Leader must drive the RCCA activity to completion in NCAT. The RCCA results will be reviewed by;
 - NCAT Quality Team member/s
 - Systems Quality Team member/s
 - Technical Team Leader manager

- The SSP PM is responsible for verifying that the NCAT closure criteria is met.

Once RCCA is identified, documented, implemented, and validated in NCAT as effective (that is, meeting the NCAT closure criteria), NCAT (including the SSP) is ready for closure.

7 NON-STANDARD REQUESTS

7.1 Quality Alarms – ORT PRST Rejected SSP Process

Refer to *Ongoing Reliability Testing (ORT) Policy*, 914-1736, for requirements to initiate or waive a SSP based on an ORT PRST reject.

To initiate an ORT PRST rejected SSP, the following must be performed:

- The Technical Team Leader must contact the Crisis Manager and SSP PM and open a NCAT with completed Technical Assessment information documented. The technical assessment data must include the PRST reject charts, summary of PRST rejects, and failure mode.
- If the issue requires emergency containment, a Pre-Assessment Meeting is NOT required.
- The SSP notice must be created and approved in NCAT so that the notice is distributed for action.
- The Crisis Manager must ensure that a SSP meeting is scheduled.
- All other requirements for execution of the SSP are as in the standard process.

7.2 Emergency and Off-hours Requests

You must implement the emergency SSP process when immediate containment is required, and you believe that the delay involved in following the standard process can adversely impact Oracle's business or customers.

For an emergency SSP, no Pre-Assessment Meeting is needed. You can proceed directly to completing the purge form within NCAT after the Technical Assessment Meeting. The Crisis Manager with the help of the SSP PM can directly request SCO PL&T VP's approval after the Technical Team recommends to proceed with an emergency SSP. PL&T VP's e-mail approval is sufficient, before NCAT is updated. All other steps are as in the standard process.

7.3 Confidential Purges

Where there is a business need to execute an SSP, but there is significant concern regarding the sensitivity of the problem and the adverse risk for Oracle that the information can escape to customers or competitors, you can execute a confidential purge. This is handled entirely separate from the normal procedure, as follows:

1. Complete *Stop Ship and Purge (SSP) Form for Confidential SSPs*, 913-1661, using the data obtained from the Technical Lead and Crisis Manager.
2. Use NCAT to generate a purge number.

NOTE 10: Leave all other details in NCAT blank at this stage.

3. Obtain approval from the Crisis Manager and the SCO PL&T VP.
4. The Crisis Manager forwards details of actions required to the affected areas.

NOTE 11: Only send the emails to named individuals or create a new alias specifically to manage this issue. You must not use any of the existing aliases. When you create a new alias, it must not contain any aliases within it, and you must have the approval of the Crisis Manager or SSP PM to add names to it.

5. When the actions are completed, the affected areas respond to the Crisis Manager and the SSP PM only.
6. The Crisis Manager and the SSP PM determine when the actions are complete, and close the NCAT and the purge.

NOTE 12: Use this process for exceptions only, for example, for products that are not released yet for general availability.

The SSP PM is responsible for monitoring the use of this process, and for escalating if the process is being abused.

8. SSP MANAGEMENT

The GPO for Quality Management Systems is responsible for overall Architecture, Systems and Governance and PLT Business Operations is responsible for ensuring Execution, Monitoring, and Measurement of SSP process effectiveness.

8.1 Reports

The SSP PM prepares and distributes SSP reports periodically. The report can include but is not limited to any of the following:

- The number of SSPs by commodity and group
- The SSP cycle-time (the length of time from a SSP request until resumption of shipment(s), backlog recovery, SSP containment verified, and closure)
- Active SSPs

8.2 Escalation of Actions

The NCAT tool monitors delinquent required actions in accordance with the pre-defined cycle time targets for each stage. Escalations occur to Actionees, Crisis Manager, and Actionees' and Crisis Manager's Direct Manager, as necessary to ensure that any issues are resolved and the purge progresses.

8.3 Postmortems

As required, Postmortems on SSPs are conducted by the Crisis Manager with the support of the SSP PM. Any SSP postmortem request must first be approved by the Crisis Manager.

9. LABELLING REQUIREMENTS

Suspect/affected Material:

- **Example- N1234-P09876 QA Inspection - Pending**
- Where N1234 is the associated NCAT# separated by a dash, and P09876 is the associated PA# (if applicable).
- Bulk pack box, Single Pack boxes and/bag/container(s)/ or Assembly for loose parts (must be Tamper Proof as outlined in spec 950-1685-xx).
 - Bulk Pack – Labeling must be placed on the outer-box in a location easily seen during screening processes (Front of Box so when stacked the labels can still be seen) and not cover any other package labeling.
 - Single Pack - Labeling must be placed on the outer-box in a location easily seen during screening processes (Front of Box so when stacked the labels can still be seen) and not cover any other package labeling. Assuming the label will fit. If not, another location on the single pack box is acceptable.
 - Bag/Container - Labeling must be placed on the outer-bag/container and not cover any other package labeling.

Reworked material that is now Known Good and has passed testing requirements:

- **N1234-P09876 QA Inspection - Passed**
 - Affected material has been reworked, successfully tested, re-packaged according to spec and returned to the general “Good Material” location for consumption.
 - Assembly Labeling - N1234-P09876 Labels must be affixed to the affected unit/assembly, but ONLY after unit/s have been reworked and pass specification/test.
- **N1234-P09876 QA Inspection - Failed**
 - QA Inspection Failed means the affected material has failed the associated rework/test and must be reworked again, and/or scraped if it not capable of meeting the rework/test requirements.

Labeling Instructions apply to all Suspect/affected material once a decision has been made to begin containment and recovery actions (i.e., screening, quarantine, rework, RMA, etc.) including FGI that will ship to an external customer.

10. DEFINITIONS

TERM	DEFINITION
Commodity	A part that is used across two or more different Oracle products without any change to the part number for the different products. For examples, disc drives, memory dual inline memory modules (DIMMs), monitors,

	keyboards, and software.
Corrective action	<p>Action to eliminate the cause of a detected non-conformity, or other undesirable situation</p> <p>NOTE 13: There can be more than one cause for a non-conformance.</p> <p>NOTE 14: Corrective action prevents the recurrence of a problem while preventive action takes place before a problem occurs.</p>
Crisis Manager	Ops PM or Commodity Manager with primary responsibility for the affected part
FAB	Field Action Bulletin
NCAT	Non-Conformance Corrective Action Tool. An online tool for managing and tracking quality issues, including SSP containment activities, available within the Oracle Self Service Applications, under the Quality Workbench Responsibility at: https://global-ebusiness.oraclecorp.com/OA_HTML/AppsLogin .
Partial purge	Any purges that do not address all areas with suspect part(s) inventory, known at the time of the purge
Pre-Assessment Meeting	A formal meeting called by the PM in agreement with the Technical Team Leader and Crisis Manager. It reviews technical information from the Technical Assessment Meeting, and determines whether the business impact justifies proceeding with the purge.
SSP PM	SSP Program Manager- Responsible for managing the complete process and ensuring compliance with the process and procedures
Purge	An action performed when a quality problem exists and the product can be separated into good and bad categories. The purge can result in customer orders not shipping when expected.
Stop Ship	An action performed to prevent the shipment of a product when a quality problem is known to exist, but there is no way of screening good from bad product. The stop ship can result in customer orders not shipping when expected.
Stop Build	An action performed to prevent building or processing Work-In-Process of a product when a quality problem is known to exist.
Technical Assessment Meeting	An informal meeting involving only those technical parties with direct involvement, plus optionally the PM. It reviews the available data to determine if there is a verifiable problem, and completes the Technical Assessment Form in NCAT.
Technical Team Leader	The Engineer or Engineering Manager responsible for the parts and processes causing problems

REFERENCE DOCUMENT AND RECORDS

Document Title	Number	ESO Controlled ¹	Quality Record ²
<i>Ongoing Reliability Testing (ORT) Policy</i>	914-1736	x	x
NCAT: https://global-ebusiness.oraclecorp.com/OA_HTML/AppsLogin	N/A	x	x
External Manufacturing Quality Escalation Requirements	PROC-10051	x	x

1 All references to documents controlled by Engineering Services were current when this document was released.
All hard copies of this document are to be used for reference only.

2 For quality record information, refer to *SCO Global Manufacturing Operations: HLS - Control of Quality Records, 923-1764-xx*.

DOCUMENT HISTORY AND APPROVALS

Dash	Rev	Date	Description of Change	Originator
Agile History				
04	A	19 Feb 1999	Updated to reflect new procedure and SunPeak transition.	N/A
05	A	26 Mar 2000	Shifted responsibilities of team members in Section 2. Added Section 2.3.2, Root Cause Analysis. Rewrote Sections 2.6 and 2.7.	N/A
06	A	28 Mar 2001	Substantial rewrite.	N/A
07	A	08 Jan 2002	Substantial rewrite to introduce SunPASS procedures. Reordered Sections 2 to create Sections 3 through 9. Added definition for corrective action.	N/A
09	A	7 Feb 2007	Substantial rewrite to reflect the current SSP process and requirements.	N/A
10	A	13 Mar 2008	Updated to reflect VP notification for purges with business impact. Various other small changes to match procedure with current process.	N/A
11	A	24 Jul 2009	Updated to change references to group names following WWOPS re-org. Various other changes to align procedure with current Technical Assessment and SSP processes. Removed references of obsoleted documents.	N/A
12	A	12 Jan 2010	Update responsibilities of Service Readiness Manager.	N/A
13	A	08 Jul 2010	Updated Sections 2, 4.1, 5.1, 7.2, 7.3, 7.4.3, and 7.5.2, and added Notes 5 and 9.	N/A
14	A	30 Jul 2010	Deleted soon to be obsoleted reference: <i>WWOPS Quality: Product Safety Corrective Action Process</i> , 923-2690-xx and updated Figure 3-1.	N/A
15	A	08 Sep 2010	Update the document title and the title of reference: <i>WWOPS Product Lifecycle and Technology: Stop Ship and Purge Approval Form</i> , 913-3777-xx.	N/A
16	A	21 Oct 2011	Updated the whole document to reflect the introduction of the new SSP tool, which is NCAT.	N/A
17	A	30 July 2013	Updated the Stop Build process. Review Version B changes – added 923-2141, <i>WWOPS Manufacturing: Process Alert (PA) Process</i> and in Section 6.1, change from NCAT to actionee for role of changing status to SSP Containment Complete and remove	N/A

			duplication	
18	A	23 Dec 2013	Removed the Stop Build process (in Section 4.1).	N/A
19	A	15 Oct 2015	Document NCAT2.0 changes.	N/A
20	A	23 May 2016	Replaced 'Supply Management and Supply Chain' with 'Direct Procurement and Supply Chain Ops'. Replaced 'Supply Base Development Manager' with 'Supplier Program Manager.' Stop Build must go through SSP process to get formal approval from VP and SVP (updated Sections 4.1, 4.2, 4.4, and 5.4.3).	N/A
21	A	17 Aug 2016	Stop Build process limited to 24 hrs instead of 48 hrs.	N/A
22	A	7 Feb 2018	Member when there is a component issue in Section 4.2. an OCE team for Add Product Life Cycle and Technology to ownership of process in Section 1.1, and add requirement Removed SVP approval requirements	N/A
<i>Fusion History</i>				
<u>Rev</u>	<u>Date</u>	<u>Description of Change</u>	<u>Originator</u>	
23	21 June 2021	Update several sections of the process. Key changes are; 1. Title Change- Remove SCO/PLT- Add Hardware Products 2. Notification that all SSP communications (both internal and external) are to be treated as Confidential Oracle Restricted. 3. SSP initiation requirement updates. Proc-10051 External Manufacturing Escalation Requirements. 4. Labeling Requirements Note: Additional changes include clarification of existing requirements. Note, during the review process all changes are highlighted in "yellow" for identification purposes. The highlighted areas will be removed on next update.	N/A	
24	26 Aug 2021	Fixed the rev history. The revs were out of order and separated between Agile and Fusion. Version B: Added Rev 24,	N/A	
25	4 Feb 2022	Updated to Redwood Template 7301497	N/A	
25	16 Feb 2022	Clarified Requirements Associated with Deciding	N/A	

		Not to Proceed with an SSP. Plus updated SSP Policy Big Rules Table to include Required Approvals	
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