Work Control Process Flow

Task 85: Ripouts

Master Design Document

Review and Approval Page

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1 REQUIREMENTS SECTION

1.1 Background

Today, several key shipyard processes still use paper forms that are manually routed around the shipyard for development, execution, comment, resolution and closure. These processes are inefficient, have a complex change process, and are prone to errors. Test and Operations supervisors spend an unnecessary number of hours working to paper forms. Two of the most complex processes were combined together into this task: Test Inspection Reports (TIRs) and Ripouts. The task team streamlined the processes and will make them fully electronic from creation to close out. This MDD will address the Ripouts portion of the task. A separate MDD will address the TIR portion of this task.

In a company-wide effort to eliminate paper forms, the purpose of this task is to eliminate the use of paper Nuclear and Non-Nuclear Ripout Report forms. This task will create an electronic workflow tool in Electronic Desktop to electronically develop, execute and closeout Ripouts.

The team was tasked to develop the current and future state maps and requirements. The team consists of Test, Operations, both Quonset and Groton, Nuclear and Non-Nuclear ships management, Test Records, Planning and QA. The team focused on all three types of Ripouts: Nuclear, Non-Nuclear and Enhanced Ripouts.

Electric Boat is deploying Wi-Fi on the modules, hulls and manufacturing areas allowing Ripouts to be developed, executed and closed on mobile devices (laptops or tablets) while on the deck plates. A desktop application and mobile application are being developed.

The purpose of this Master Design Document (MDD) is to develop software requirements and software deliverables for IPDE Task 85 Work Control Process Flow Tool / Reentry.

1.2 Objectives and Scope

The objective of this task is to enable Test and Operations supervision to spend more time on the deck plates and reduce the work load caused by administrative tasks. The purpose of the Master Design Document (MDD) is to develop software requirements and software deliverables for a new electronic Ripouts application.

~~A new icon will be added Electronic Desktop titled "Ripouts". All Ripouts, including Nuclear, Non-Nuclear and Enhanced Ripouts, will be created, routed, signed off and managed in this new Electronic Desktop module. Ripouts will no longer be created in the existing 7G Mainframe screens. Existing paper forms will not be used to collect signature approvals.~~ SPARS eDL/DR will not be used to create Enhanced Ripouts. Ripouts will still be viewable in Electronic Desktop 7G and 7G Quick.

Once the new Electronic Desktop application is in place, a new mobile web application will be created for signing off routing steps for Ripouts on a tablet.

Assumptions List	
1	EB network (wired or wireless) will be available on the hulls, hull sections, and manufacturing

	areas at Groton and Quonset point locations.
2	All Test and Operations personnel will have access to a mobile device. This device can be assigned to them by CSC or as a department asset that is checked out when needed.
3	The information for both projects will not exceed NOFORN NNPI.
4	This project will leverage the current electronic close out process for TIR UNSATs in Electric Desktop 7G.
5	After the project turns over Ripouts will be developed in the electronic system not on paper.
6	After the project turns over, Enhanced Ripouts will not be created in SPARS eDL/DR.

1.3 Business Process

The new Ripouts application in Electronic Desktop will be an electronic workflow. The required routing steps will be determined by the system based on field inputs. Every time a routing step is open to a user, they have edit access to certain fields. Once they are done editing, they can sign for their step. The user's badge number, name, department, date and time are recorded electronically. Routing steps must be signed off in sequential order.

There are two main types of processes for Ripouts: Non-Nuclear and Nuclear. These two processes are defined below.

The Non-Nuclear process flow, including Enhanced Ripouts, is documented in:
Attachment 1 – Non-Nuclear Process Flow.

Non-Nuclear Ripout Process:

1. **Status = DRFT**

    a. The Ripout Originator and Ripout Writer document most of the Ripout Attribute data (see Attachment 4 – Mockup Ripout Detail Screen for all fields). They will determine if it's an Enhanced Ripout or not.

    b. Ripout list # is assigned by the system.

    c. Lead Trade will review and approve.

2. **Status = NPUB**

    a. Ship's Management approves the Ripout.

    b. Quality Assurance Engineering determines if the Ripout is OR (Operations Responsible) or SEP (Special Emphasis Program).

    c. If the Ripout contains nuclear interface, Nuclear Quality Control Engineering documents data in the Controls Required field.

    d. If it's an Enhanced Ripout, D460 Engineering Review will review and provide attachments as required. D460 Engineering Supervisor will approve.

e. If it's an Enhanced Ripout, Quality Assurance Engineering will document the Reentry Control Sequence number.

f. If it's an SEP Ripout (not OR and not Enhanced Ripout), it will go to Quality Assurance Inspection for the applicable work scope. They will determine if a Retest is required, if NDT is required, if QAL Certification is required. They have edit access to the Trade Boundary and Controls Required fields.

3. Status = STEC

a. Test Department will determine if a Tagout is required, who has Operational Control (EB or Ship's Force), if a retest is required, if Hazardous Energy Tagout is required, type of Safety Tech needed, if WIP is required, and if the Ripout is for a Seawater Connected System. They have edit access to the Trade Boundary and Controls Required fields.

b. If it's a Seawater Connected System, the Lead Trade has to certify: "The Trade Supervisor performing the work acknowledges the Safety Technician has identified the component that has been isolated for work in hull at the job site."

c. If a WIP is required, the Ship Safety Officer creates the WIP (outside of the Ripout system) and they document the WIP #. Then, the Lead Trade must certify "The Trades Supervisor performing the work acknowledges and understands the controls required by the WIP #. Also, that he/she has been shown by the Safety Technician the component that has been isolated for work in hull at the job site."

d. The applicable Safety Tech(s) (Mechanical/Electrical/Electronics) will tag out the system.

e. If Ship's Force has Operational Control, Ship's Force will sign.

4. Status = WORK

a. Lead Trade will perform work and sign.

5. Status = INSP

a. If the Ripout is Level 1, SUBSAFE, DSS-SOC or SFCC, the trades will perform the inspection for the applicable work scope. If UNSATs are found during inspection, a TIR will be written outside of the Ripouts application.

b. Otherwise, if the Ripout is not Level 1, SUBSAFE, DSS-SOC or SFCC, Quality Assurance will perform the inspection for the applicable work scope. If UNSATs are found during inspection, a TIR will be written outside of the Ripouts application.

c. If a Retest is required, proceed to Status = RFRT. Otherwise, proceed to Status = INST.

6. Status = RFRT

a. The Retest Trade will document the retest requirements. If they don't know the retest requirements, they will write an UNSAT TIR against D460 requesting the retest requirements. Then they will complete the retest. If needed, they will write a separate TIR (example: lagging).

b. If Ship's Force has Operational Control, Ship's Force will sign.

c. The system will determine if there are any open UNSATs against the Ripout. If there are, proceed to step 9. Otherwise, proceed to step 10.

7. Status = INST

a. Once all UNSATs are closed, the user who closed the last UNSAT will sign the Ripout.

8. Status = RTON

a. If a Retest is Required, Test Director will approve that the system is restored to normal.

b. If Inspecting Trade = 321 or 915, Inspecting Trade Hourly will approve that the system is restored to normal.

c. Inspecting Trade Salary will approve that the system is restored to normal.

9. Status = AUDT

a. If Ripout is Fly-By-Wire only, and not Level 1, SUBSAFE, DSS-SOC or SFCC, proceed to step 11c.

b. If Ripout is Level 1, SUBSAFE, DSS-SOC or SFCC then Quality Assurance Engineering will perform the Closeout Review.

c. If Ripout is Level 1, SUBSAFE, DSS-SOC or SFCC then SUPSHIP will perform a Final Review.

d. If a Retest was required, Test Engineering will document if Embedded Testing is required.

10. Status = CLSD

The Nuclear process flow is documented in: Attachment 2 – Nuclear Process Flow.

Nuclear Ripout Process:

1. Status = DRFT

a. The Ripout Originator and Ripout Writer document most of the Ripout Attribute data (see Attachment 4 – Mockup Ripout Detail Screen for all fields).

b. XREF will be assigned by the system.

c. Lead Trade can edit the same fields as the Ripout Writer. They can also document if Radiological Controls are required. When done, kick back to Ripout Writer or approve.

d. Nuclear Ship's Management can edit if Radiological Controls are required. They have edit access to the Trade Boundary and Controls Required fields. They are required to enter the Key Event.

e. Ripout list # is assigned by the system.

2. Status = STEC

a. Nuclear Test enters the Controls required and signs.

b. The applicable Safety Tech(s) (Mechanical/Electrical) will tag out the system and sign. The date and time will be recorded by the system.

c. If a Watertight Integrity Permit (WIP) Required

i. Test (D272) creates the WIP (outside of the Ripout system) and they document the WIP #.

ii. If Ship's Force has Operational Control, Ship's Force will approve.

iii. Then, the Lead Trade must certify "The Trades Supervisor performing the work acknowledges and understands the controls required by the WIP #. Also, that he/she has been shown by the Safety Technician the component that has been isolated for work in hull at the job site."

d. If a Watertight Integrity Permit (WIP) is not required, and If Ship's Force has Operational Control, Ship's Force will approve.

3. Status = WORK

a. Lead Trade will perform work and sign.

4. Status = INSP

a. Nuclear Quality Control Inspection will perform the reinstallation inspection. If installation UNSATs are found, a TIR will be written outside of the Ripouts application.

b. If Ship's Force has Operational Control and a Retest is not required, Ship's Force will approve.

5. Status = RFRT

a. Nuclear Test will document Controls Required, Retest Requirements, Retest Trade, if NQCI is required for Retest Inspection, and who has Operational Control.

b. A second Nuclear Test user will document Controls Required, Retest Requirements, Retest Trade, if NQCI is required for Retest Inspection, and who has Operational Control.

c. If a Retest is required

i. If Nuclear Quality Control is required for Retest Inspection, Nuclear Test will complete the portion of the Retest that requires NCQI Retest Inspection.

ii. If Nuclear Quality Control is required for Retest Inspection, Nuclear Quality Control Inspection will perform Retest Inspection. If installation UNSATs are found, a TIR will be written outside of the Ripouts application.

iii. If Nuclear Quality Control is not required for Retest Inspection, Nuclear Test will perform Retest Inspection. If installation UNSATs are found, a TIR will be written outside of the Ripouts application.

d. The system will determine if there are any open UNSATs against the Ripout. If there are, the user who closed the last UNSAT will sign the Ripout.

e. If Ship's Force has Operational Control and a retest was required, Ship's Force will sign.

6. Status = RTON

a. Nuclear Test will confirm that the system is restored to normal

7. Status = CLSD

Use cases are used to convey specific process scenarios details to others (e.g. technical team members, business users outside of the subject business domain, etc) to enhance the definition of the business process. In support of the definition of the above business processes, several use cases have been developed. These use cases are documented in Attachment 3 – Use Cases.

1.4 Organization Requirements

1.4	Organization Requirements	Summary
WRKCONT-1.4-001	Create New Electronic Desktop Groups for Ripouts	Each separate routing step will be associated to a group
WRKCONT-1.4-002	Ripout User's Manual needs to be created and accessible via Electronic Desktop help screen	Not a system requirement - to be created by EBIT and EB Training
WRKCONT-1.4-003	Ripout User's Manual needs to be created and accessible via mobile app	Not a system requirement - to be created by EBIT and EB Training

1.5 Location Requirements

1.5	Location Requirements	Summary
WRKCONT-1.4-001	There are no new requirements. This section is not applicable to this task.	

1.6 Data Requirements

1.6	Data Requirements	Summary
WRKCONT-1.6-001	Validate Work Order against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-002	Validate Lead Trade against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-003	Validate Ship number against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-004	Validate Drawing 1- 4 and Reference Drawings (LOAs?) against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-005	Validate Shop Order Number against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-006	Validate SSCI Number against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-007	Validate OCT against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-008	Validate WAD against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-009	Validate WPPN against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-010	Validate Test Trade against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-011	Validate Key Event against	Same validation that exists in 7G

		Tandem today
WRKCONT-1.6-012	Validate Inspecting Trade against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-013	Validate WIP # against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-014	Validate Re-Test Trade 1 against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-015	Validate Re-Test Trade 2 against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-016	Validate Re-Test Trade 3 against	Same validation that exists in 7G Tandem today
WRKCONT-1.6-017	Special Emphasis Program (SEP) - QAI Review of Work Scope requirement	One of the following fields must be checked yes: Work Scope – Piping Work Scope – Mechanical Work Scope – Structural Work Scope – Electrical More than 1 can be checked.
WRKCONT-1.6-018	Cannot have both WIP req'd = Y and seawater = Y. Only 1 value can be Y	The system shall produce an error if WIP Req'd = Y and Seawater = Y
WRKCONT-1.6-019	Add new Ripout tables and fields	List, Item, Extra, Routings, Signatures, Comments, Trade Boundary, Controls Required, Retest Requirements
WRKCONT-1.6-020	Cannot create a Ripout List number if the Ship is on Lock	Allowed to create an XREF number if the Ship is on lock. Not allowed to create a Ripout List number if the Ship is on lock. Produce an error if this happens.

1.7 Technology and Application Requirements

1.7.1 Authoring Application

1.7.1	**Authoring Application**	**Summary**
WRKCONT-1.7.1-001	Need to turn off existing 7G Tandem screens for processing Ripouts	The system shall not allow Ripouts to be created in 7G after production turnover. Ripouts should only be allowed to be created/modified in Electronic Desktop.
WRKCONT-1.7.1-002	Need to assign a Ripout List #	The system shall assign a Ripout List number after *** step signs off. The system shall assign the Ripout List number as "RO" + "SSCI Number" + " " + "001". Example: "RO82110 001". The first record created for that Ship and SSCI Number shall be assigned as List = "001". Each

		sequential record created for that Ship and SSCI Number shall be assigned a List number incremented by 1.
WRKCONT-1.7.1-003	Need to assign a unique system ID (primary key) to each ripout	When a ripout writer creates a ripout, the system shall assign a unique XREF
WRKCONT-1.7.1-004	Need to include a Sequence for each XREF	When a ripout writer creates a ripout, the system shall assign a unique XREF, starting with Sequence = 01
WRKCONT-1.7.1-005	Need to see a history of attribute data for each XREF by Sequence	The system shall allow a user to view all sequences of an XREF
WRKCONT-1.7.1-006	Need to allow the user to modify data on the latest XREF Sequence only	The system shall allow a user to modify attribute data on the latest XREF Sequence only. The system shall not allow a user to modify attribute data on XREF Sequences that are not the latest.
WRKCONT-1.7.1-007	Need to attach files	The system shall allow users to add attachments (use same attachment process as 7G UNSATs)
WRKCONT-1.7.1-008	Need to delete attached files	The system shall allow users to delete attachments (use same attachment process as 7G UNSATs)
WRKCONT-1.7.1-009	Need to allow users to enter a comment while they are entering their signature	The system shall allow a user to include an optional comment during their signature. The comment will be stored in the comment table, independent of the signature stored in the signature table.
WRKCONT-1.7.1-010	Need to allow all signature roles to be able to add a comment	The system shall only allow users in a sign role to be able to add comments
WRKCONT-1.7.1-011	Need to have a super user role for deleting comments and attachments	The system shall only allow users in the following roles to be able to delete comments and attachments
WRKCONT-1.7.1-012	Need to allow comments to be written on any and all sequences	The system shall allow a user to add a comment against sequence 01, even if the latest sequence is 03.
WRKCONT-1.7.1-013	Need to allow comments to be added at any time, open or closed	The system shall allow a user to add a comment against an open XREF. The system shall allow a user to add a comment against a closed XREF.
WRKCONT-1.7.1-014	Need to allow the addition of comments without creating a new	When a user adds a comment, the system shall not deprogress

	sequence or invalidating signatures	the record.
WRKCONT-1.7.1-015	Need to allow all users with access to Ripouts icon to view comments	If user has access to Ripouts icon, the system shall allow the user to view existing comments on the Ripout.
WRKCONT-1.7.1-016	Need to be able to create a ripout from scratch	The system shall allow a user to create a ripout from scratch (no fields are pre-filled with values)
WRKCONT-1.7.1-017	Need to be able to create a ripout from seed (an existing ripout)	The user will be able to seed 2 ways: 1. From Ripout Detail screen for an existing XREF, when a user clicks on the Ripout Detail Add tab, the system shall seed all fields from existing XREF and allow user to edit all fields 2. From Ripout List screen, when a user selects one XREF from the list, the system shall seed fields from existing XREF and allow user to edit fields
WRKCONT-1.7.1-018	When a user creates a ripout from seed, the ripout type cannot be changed	When the user is on the creation screen when they seeded from an existing ripout, the system shall not allow the user to change the ripout type (Nuclear, Non-Nuclear, or Enhanced Ripout). This drop down menu value shall be grayed out and not editable by the user.
WRKCONT-1.7.1-019	Need to have new Ripout Navigation menu	When new Ripout icon is clicked, the system shall open a Navigation Menu with the following buttons: 1. Search 2. Create 3. Backlog
WRKCONT-1.7.1-020	Need to have a Search button from Navigation Menu will launch search screen	When the Search button is clicked, the system shall user to search for Ripouts by the following fields: 1. Ship 2. Ripout # 3. XREF 4. Drawing 5. Authorizing Document Type 6. Lead Trade
WRKCONT-1.7.1-021	Need to have a list panel from Search screen	The system shall display a list of Ripouts that meet search criteria from Search button.

WRKCONT-1.7.1-022	Need to have a create button from Navigation Menu needs to launch Ripout creation screen	The system shall provide the user with a ripout creation screen. There will be a drop down menu at the top of the screen where the user will select the type of ripout they want to create. The system shall provide the following options in the drop down menu: Nuclear Non-Nuclear Enhanced Ripout
WRKCONT-1.7.1-023	Need to have a Ripouts detail screen	See Mockup Ripout Detail Screen attachment
WRKCONT-1.7.1-024	Need to have a backlog button from Navigation Menu needs to launch Backlog screen	The system shall allow user to search for Ripouts by status/active step to them (their role): 1. Active step 2. Lead Trade 3. Nuclear/Non-Nuclear
WRKCONT-1.7.1-025	Need to have a list panel from Backlog screen	The system shall display a list of Ripouts that meet search criteria from Backlog button.
WRKCONT-1.7.1-026	Need links on the Ripout Detail screen for access to SSP attachments: Retest forms, Test form, Tagouts, WIP's, NDT sheets, QAL sheet, Re-Entry Briefing Sheet	The system shall have a page of reference links. Links on the page for access to SSP attachments: Retest forms, Test form, Tagouts, WIP's, NDT sheets, QAL sheet, Re-Entry Briefing Sheet
WRKCONT-1.7.1-027	Need Email notification to user when a step is open to their active directory group	When a routing step is available to be signed for, the system shall send an email to the users in the active directory group.
WRKCONT-1.7.1-028	Need error messages to be produced if a user does something incorrectly	The system shall verify all required fields are filled in. If not, produce and errors
WRKCONT-1.7.1-029	Need error message to be produced if user tries to sign without required fields filled in	The system shall verify all required fields are filled in. If not, produce an error when user clicks sign button.
WRKCONT-1.7.1-030	Need error message to be produced if user tries to sign when there are open UNSATs at CLOSE UNSATS step	The system shall verify if there are open UNSATs: if TIR # exists where Test Doc = current Ripout List # and status is not CLSD, produce error when user clicks sign button. If CLSD, allow user to sign.

WRKCONT-1.7.1-031	Nuclear: Allow a user in the Nuclear Ship's Management role to edit the Key Event field at any time, except when the Ripout Status = DRFT or CLSD	When the Ripout Status = DRFT or CLSD, need the system to not allow any users to update the Key Event field. When the Ripout Status is not DRFT or CLSD, need the system to only allow a user in the Nuclear Ship's Management role to be able to update the Key Event field.
WRKCONT-1.7.1-032	Non-Nuclear: Allow a user in the _____ role to edit the Key Event field at any time, except when the Ripout Status = DRFT or CLSD	When the Ripout Status = DRFT or CLSD, need the system to not allow any users to update the Key Event field. When the Ripout Status is not DRFT or CLSD, need the system to only allow a user in the _____ role to be able to update the Key Event field.
WRKCONT-1.7.1-033	Need to assign a Ripout List #	The system shall assign a Ripout List number after *** step signs off. The system shall assign the Ripout List number as "RO" + "SSCI Number" + "B" + "001". Example: "RO82110B001". The first record created for that Ship and SSCI Number shall be assigned as List = "001". Each sequential record created for that Ship and SSCI Number shall be assigned a List number incremented by 1.
WRKCONT-1.7.1-034	Need to get value for REC SEQ NO if REC SEQ NO Required = yes	If Ripout Writer inputs REC SEQ NO Required = yes, then during QAE - Special Emphasis Review, the system shall require a value for REC SEQ NO.
WRKCONT-1.7.1-035	Need to allow attachments to be updated during Initiate Change (Red Mat) process	If user presses the "Initiate Change" button (to initiate a Red Mat change), allow user to also edit attachments.

1.7.2 Application Integration

1.7.2	Location Requirements	Summary
WRKCONT -1.7.2-001	There are no new requirements. This section is not applicable to this task.	

1.7.3 PLM Application

1.7.3.1 Work Breakdown Structure (WBS) and Ship Breakdown Structure (SBS)

To allow for more accurate task management and to automate the manual maturity management evaluation process in place today, EB requires the ability to create, edit, and navigate a WBS hierarchy associated to a Bill of Material. The specific WBS requirements for this task are stated below.

1.7.3.1	Location Requirements	Summary
WRKCONT -1.7.3.1-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.2 Work Management

To allow electronic work authorization at the user level and to automate work status reporting, EB must be able to create, assign, and track WBS level and Working Level Tasks. This includes the ability to define a work context (i.e. SBS collector, shop order, required role, applicable hull) for the Working Level Tasks (WLTs) that specifies role, group, program, WBS node, effectivity, etc. for the assigned work. The specific work authorization (WA) requirements for this task are stated below.

1.7.3.2	Location Requirements	Summary
WRKCONT -1.7.3.2-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.3 Configuration Management (CM)

To allow for management of multiple configurations of electronic data without duplication of data, EB requires the ability to perform hull effectivity on any/all data managed within PLM. This effectivity capability will configure all data created in PLM, including technical insertions and alternate design configurations, and will enable the dynamic creation and management of data configurations as necessary. The specific CM requirements for this task are stated below.

1.7.3.3	Location Requirements	Summary
WRKCONT -1.7.3.3-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.4 Occurrence Management

To provide for more flexible data management, EB requires separate groupings of attributes (attribute groups) on parts, occurrences, and other objects created within the PLM. These attribute groups will each have their own lifecycle status and data security. The specific Occurrence Management requirements for this task are stated below.

1.7.3.4	Location Requirements	Summary
WRKCONT -1.7.3.4-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.5 Reproducibility of Data

To provide reproducibility of data from the database (work-in-process or released data), EB requires the capability to save "snap-shots" of data (defined as Intermediate Configured Groups, ICGs). The specific ICG requirements for this task are stated below.

1.7.3.5	Location Requirements	Summary
WRKCONT -1.7.3.5-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.6 Lifecycle

To track the maturity of the EB design product, EB requires the ability to provide lifecycle status to all data created in the PLM application. The solutions must provide the ability to create and manage lifecycle states and transitions for PLM objects. The specific Lifecycle requirements for this task are stated below.

1.7.3.6	Location Requirements	Summary
WRKCONT -1.7.3.6-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.7 Catalog

To provide a classification schema for Items stored within the PLM, catalog capability is required. This will be in addition to any current catalog capability at EB. The specific Catalog Classification requirements for this task are stated below.

1.7.3.7	Location Requirements	Summary
WRKCONT -1.7.3.7-001	There are no new requirements. This section is not applicable to this task.	

1.7.3.8 Identity and Rights Management (I&RM)

I&RM controls access to project data in PLM based on user's role and group. The specific I&RM requirements for this task are stated below.

1.7.3.8	Location Requirements	Summary
WRKCONT -1.7.3.8-001	There are no new requirements. This section is not applicable to this task.	

1.7.4 Publishing and Reports

1.7.4	Publishing and Reports	Summary
WRKCONT-1.7.4-001	Need to modify Business Objects reports	Modify existing Business Objects copy of Oracle tables to reflect new tables and fields
WRKCONT-1.7.4-002	Need PDF capability of Ripout Detail screen	Need button on the bottom of the Ripout Detail screen titled "Print to PDF". When a user clicks on this button, the system shall produce a PDF of the Ripouts Detail screen. If the large text fields contain more

		text than can be viewed on the screen, the PDF shall print all existing text.
WRKCONT-1.7.4-003	Existing 7G Reporting capability needs to be available	In order to certify the ship, a 7G report is run for all open Ripouts. This functionality needs to exist in the new system.

1.7.5 Migration

1.7.5	Migration	Summary
WRKCONT-1.7.5-001	~~Need to migrate existing Ripout data in the Ripout SQL Server with Microsoft Access front end~~	~~Existing Ripout data shall be migrated over into the new Ripout database~~

1.7.6 Review and Approval

1.7.6	Review Application	Summary
WRKCONT-1.7.6-001	Need to create Nuclear Routings	Nuclear Routings shall be created by the system in accordance with (Nuclear Routings document)
WRKCONT-1.7.6-002	Need to create Non-Nuclear Routings	Non-Nuclear Routings shall be created by the system in accordance with (Non-Nuclear Routings document)
WRKCONT-1.7.6-003	Red Mat Sub Route	See Red Mat Change Process Attachment
WRKCONT-1.7.6-004	Cancel Ripout Sub Route	See Cancel Change Process Attachment
WRKCONT-1.7.6-005	Stop Work Sub Route	See Stop/Resume Work Process Attachment
WRKCONT-1.7.6-006	Resume Work Sub Route	See Stop/Resume Work Process Attachment
WRKCONT-1.7.6-007	Need default value for inspecting trade	If Level 1, SUBSAFE, DSS-SOC or SFCC = Y, the system shall default populate "inspecting trade" field with '321' during QAE Special Emphasis Review step
WRKCONT-1.7.6-008	Need to eliminate "QAE - Pre-Issue Review" routing step if ripout is coded as FBW only	QAE does NOT perform a final review of Ripouts marked FBW only, as it is still coded OR YES. IF FBW = yes AND (SUBSAFE = no OR DSS-SOC = no OR SFCC = no) The system shall have the ripout follow OR routing

WRKCONT-1.7.6-009	Need to include "QAE - Pre-Issue Review" routing step if ripout is coded as Level 1, DSS-SOC, SUBSAFE or SFCC	QAE must perform a final review of any ripout marked Level 1, DSS-SOC, SUBSAFE or SFCC. After QAE - Special Emphasis Review routing step, IF SUBSAFE = yes OR DSS-SOC = yes OR SFCC = yes OR Level 1 = yes THEN the system shall route to QAI (work scope) and then to QAE - Pre-Issue Review ELSE the Ripout is considered an OR Ripout and the system shall not route to QAI or QAE Pre-Issue Review
WRKCONT-1.7.6-010	Need to include "QAE - Pre-Issue Review" routing step if ripout is coded as Level 1 only	Ripouts coded Level 1 only are not considered SEP, but utilize inspection (QAI) and QAE for closeout for Level 1 material control and certification. IF Level 1 = yes AND (SUBSAFE = no OR DSS-SOC = no OR SFCC = no) THEN the Ripout is considered an OR Ripout, but the system shall route to QAI ELSE the Ripout is considered an OR Ripout and system shall not route to QAI
WRKCONT-1.7.6-011	Need to eliminate SUPSHIP Review routing step if the ripout is coded as Level 1 only	Ripouts coded Level 1 only do not get routed for SUPSHIP review. IF Level 1 = yes AND (SUBSAFE = no OR DSS-SOC = no OR SFCC = no) The system shall follow OR routing
WRKCONT-1.7.6-012	All routing steps will be sequential	The open routing step must be signed off for before the next step can be signed off for. No parallel routings.
WRKCONT-1.7.6-013	Need to allow user to sign if they have the correct role and their step is open	Sign: The system shall capture user's info (name, badge, and department), date & time. The system shall mark signature

		with S, close open routing step and allow the next sequential routing step to be signed by a user in that role. Optional comment is also allowed.
WRKCONT-1.7.6-014	Allow user to partially sign if they have the correct role and the step is open	Partial: The system shall capture user's info (name, badge, and department), date & time. The system shall mark signature with Z, and keep current step open. Mandatory comment is required.
WRKCONT-1.7.6-015	Allow user to kick if they have the correct role and the step is open	Kick: The system shall capture user's info (name, badge, and department), date & time. The system shall mark signature with K, close open routing step and open the previous sequential routing step. Mandatory comment is required.
WRKCONT-1.7.6-016	Do not allow user to close out if open Ripout UNSATs exist	During Routing step "Close UNSATs" perform the following check: Query new TIR Database to set UNSATs value: Find all TIRs where Test Doc = Ripout List. If Status = CLSD, UNSATs = No Else, UNSATs = Yes If UNSATS = no, allow user to sign "Close UNSATs" routing step. If UNSATS = yes, do not allow user to sign "Close UNSATs" routing step.
WRKCONT-1.7.6-017	Stamps will be recorded as OQE on applicable signature	WIP, Seawater, Vendor Work

1.7.7 Hardware Requirements

1.7.7	Hardware	Summary
WRKCONT-1.7.7-001	Tablet and tablet chargers need to be accessible for users who need to sign off routing steps on the ship	For user's who are required to complete their work on the ship, tablet chargers or extra batteries shall be readily available. Not needed for users who are able to

		complete their work at a desk
WRKCONT-1.7.7-002	Wi-Fi needs to be available for users who need to sign off routing steps on the ship	For user's who are required to complete their work on the ship, Wi-Fi shall be readily available. Not needed for users who are able to complete their work at a desk
WRKCONT-1.7.7-003	Smart Cards need to be issued to users who need to sign off routing steps on the ship	For user's who are required to complete their work on the ship, smart cards shall be available. Not needed for users who are able to complete their work at a desk

1.7.8 Miscellaneous Requirements

1.7.8	Miscellaneous Requirements	Summary
WRKCONT-1.7.8-001	Create a TIR from a Ripout	Requirement of TIR Task

1.8 Common Requirements

This section is not applicable to this task.

1.9 Revision History, References and Attachments

1.9.1 Revision History

Revision	Date	Author	Reason for Change
Rev A	6/15/2017	J. Rasmussen	Initial release

1.9.2 References and Attachments

References:

(a) Existing Paper Ripout Report Form 84-01-1602
(b) IPDE Task 85: TIR MDD

Attachments:

1. Non-Nuclear Process Map
2. Nuclear Process Map
3. Use Cases
4. Red Mat Change Process
5. Cancel Ripout Process
6. Stop/Resume Work Process
7. Non-Nuclear Routings
8. Nuclear Routings
9. Mockup Ripout Detail Screen
10. Overall Electronic Desktop Vision
11. Overall Technical Architecture Vision

IPDE Task 85
Ripouts
Attachment 1 - Non-Nuclear Future State Process Map

IPDE Task 85
Ripouts
Attachment 2 - Nuclear Future State Process Map

#	Use Case Name	Summary	Priority	User Frequency	Preconditions
1	Create a Ripout from scratch	Allow user to write a new ripout from scratch (no fields are pre-filled for the Ripout Originator)	Essential	Often	User is allowed to create ripout
2	Create a Ripout from seed	Allow user to write a new ripout from scratch (Ripout Originator and Writer fields are pre-filled)	Expected	Often	User is allowed to create ripout and has selected an existing Ripout to seed from
3	Initiate a Red Mat change	While the Ripout is at WORK status, allow a user to make a change that must be approved by others before proceeding with work	Essential	Often	status of WORK
4	Cancel a Ripout	A ripout record with a prior status of AUDN or AUDT may achieve this status to indicate the ripout is canceled. This action causes the item record reserved for ripout processing to be deleted. No further activity may occur.	Essential	Rarely	status of AUDN or AUDT
5	Delete a Ripout	After a Ripout number has been assigned, allow user to delete Ripout	Essential	Rarely	Ripout # has been assigned
6	Initiate a Stop Work on a Ripout	A ripout with a prior status of STEC, WORK may achieve this status to indicate that all WORK has been stopped and will resume at a later date.	Essential	Rarely	status of STEC, WORK
7	Initiate a Resume Work on a Ripout	A ripout with a prior status of STOP may achieve this status to indicate that all WORK can resume	Essential	Rarely	status of STOP
8	Search for an existing Ripout (in work)	Search for Ripout by the following field(s): XREF Ripout # Ship System (SSCI #) Nuclear or Non-Nuclear	Essential	Often	XREF or Ripout # exists
9	Search for an existing Ripout (closed)	Search for Ripout by the following field(s): XREF Ripout # Ship System (SSCI #) Nuclear or Non-Nuclear	Essential	Often	XREF or Ripout # exists
10	Open a closed Ripout due to wrong re-test performed	Ripout is closed and needs to be opened back up (wrong re-test was performed)	Essential	Rarely	XREF SEQ is closed
11	Open a closed Ripout due to incorrect attribute data	Ripout is closed and needs to be opened back up (data input error - attribute data)	Essential	Rarely	XREF SEQ is closed
12	Open a closed Ripout due to incorrect OQE data	Ripout is closed and needs to be opened back up (data input error - OQE data)	Essential	Rarely	XREF SEQ is closed
13	Open a closed Ripout due to incorrect attachments	Ripout is closed and needs to be opened back up (attachments are incorrect and need to be added or deleted)	Essential	Rarely	XREF SEQ is closed
14	Add comment to Ripout when user is allowed to sign off their routing step	During every signature, allow a user to input an optional comment that is tied to their signature	Essential	Often	User is allowed to sign off active step
15	Sign off certain routing steps while on the boat (no desktop computer access)	Ship Safety Officer, Safety Technician, Ship's Force Officer (hanging tags)	Expected	Rarely	
16	Do not allow ripout to close if there are open Ripout UNSATs against it	If a Ripout has open Ripout UNSATs tied to it, do not allow the Ripout to close	Essential	Always	UNSAT items exist in 7G TIR Database where the Test Doc = Ripout List #
17	View attribute data	Top portion of ripout form	Essential	Always	Ripout was written by a ripout writer
18	View routing information	A view of what routing steps are required for a non-nuc ripout	Essential	Always	Routings are created by the system after "QAE – Special Emphasis Review" signs off
19	View signatures of who signed the ripout before them	User's name, badge, department and the signature date, time (5/25/17 16:01) along with signature type	Essential	Always	User is in active directory and has signed off for the routing step
20	View comments on ripout	Allow user to view existing comments anytime	Essential	Always	Comment must exist
21	View a history of attribute field values that have changed	User needs to see the previous value that existed in a field	Essential	Always	Field value must have changed
22	View attachments	Allow user to download to view locally (in IE?) anytime	Essential	Always	Attachments must exist
23	User signs active step	User agrees with attribute data and wants to sign off for their active step	Essential	Always	User is in correct role to sign off active step
24	User has 2+ people sign for active step	User agrees with attribute data, but wants another person in their same role to also sign off for the active step	Essential	Rarely	User is in correct role to sign off active step
25	User has active step, but does not want to sign	User does not agree with attribute data, but is not allowed to modify attribute data	Essential	Often	User is in correct role to sign off active step
26	System created routing steps	System must have the ability to create routing steps based on field population.	Essential	Always	Ripout Writer has filled in required fields that determine routings
27	If users need to edit, it must happen before their signoff.	After a user signs, they cannot edit anymore.	Essential	Always	User is in associated sign group
28	Email notification to users in certain roles, alerting them they have to sign a ripout	Group emails need to be created for users to opt in or out of receiving notification emails	Optional	Always	User is in associated sign group
29	Do not allow user to enter an invalid value for Work Order	Else, produce an error	Expected	Always	User is in associated sign group
30	Do not allow user to enter an invalid value for Lead Trade	Else, produce an error	Expected	Always	User is in associated sign group
31	Do not allow user to enter an invalid value for Ship number	Else, produce an error	Expected	Always	User is in associated sign group
32	Do not allow user to enter an invalid value for Drawing 1- 4 and Reference Drawings (LOAs?)	Else, produce an error	Expected	Always	User is in associated sign group
33	Do not allow user to enter an invalid value for Shop Order Number	Else, produce an error	Expected	Always	User is in associated sign group
34	Do not allow user to enter an invalid value for SSCI Number	Else, produce an error	Expected	Always	User is in associated sign group
35	Do not allow user to enter an invalid value for OCT	Else, produce an error	Expected	Always	User is in associated sign group
36	Do not allow user to enter an invalid value for WAD	Else, produce an error	Expected	Always	User is in associated sign group
37	Do not allow user to enter an invalid value for WPPN	Else, produce an error	Expected	Always	User is in associated sign group
38	Do not allow user to enter an invalid value for Test Trade	Else, produce an error	Expected	Always	User is in associated sign group
39	Do not allow user to enter an invalid value for Key Event	Else, produce an error	Expected	Always	User is in associated sign group
40	Do not allow user to enter an invalid value for Inspecting Trade	Else, produce an error	Expected	Always	User is in associated sign group
41	Do not allow user to enter an invalid value for WIP #	Else, produce an error	Expected	Always	User is in associated sign group
42	Do not allow user to enter an invalid value for Re-Test Trade 1	Else, produce an error	Expected	Always	User is in associated sign group
43	Do not allow user to enter an invalid value for Re-Test Trade 2	Else, produce an error	Expected	Always	User is in associated sign group
44	Do not allow user to enter an invalid value for Re-Test Trade 3	Else, produce an error	Expected	Always	User is in associated sign group
45	If an invalid value is entered for a field, produce an error message telling the user what field is invalid	Specific error messages should tell the user what field contains an invalid value	Expected	Always	User is in associated sign group
46	Create up to 999 Ripout list records per system (SSCI #) per boat	example: RO82110-001 through RO82110-999	Essential	Always	SSCI # is valid
47	Indicate to the user, the fields they can edit and the fields they can't edit	Gray out fields that users cannot edit during their sign off step	Optional	Always	User is in associated sign group

48	Allow ripout writer to attach highlighted copies of applicable pages from a drawing, that ultimately helps the foreman accomplish work	Attachment capability	Optional	Often	User is in associated sign group
49	Ability to make trackable changes, similar to microsoft word track changes (trade boundary field mostly, controls required and re-test requirements)	When a user makes a change to a large text field, allow user to dictate to others the change they made	Essential	Always	User is in associated sign group
50	Need system generated Enhanced Ripout numbers	For example: RO77410B007	Essential	Often	
51	When a user signs off for their routing step, allow the user to enter a comment	Include an optional column during user sign off	Optional	Often	User is in associated sign group
52	Comments entered during signatures can be modified later on, without invalidating signatures	Invalid/incorrect comments need to be able to be deleted	Optional	Often	User is allowed to delete comment
53	All users who need to sign, need to have windows logins	In order to access the application, user must have a windows login (which ultimately gives access to Electronic Desktop)	Essential	Always	User must be allowed to have Windows Login
54	Produce 7G Reports	Existing Reports generated out of 7G Tandem need to be easily accessible with live data (not day old data)	Essential	Always	Data must exist
55	Allow existing data in the Ripouts Database to be accessible in the new system	Users should be able to search and seed from Ripout data that came from the old database	Essential	Always	Data must exist

1. Need button at the bottom of the Ripout Detail screen titled “Initiate Change”.
2. The “Initiate Change” button cannot be pressed when the Ripout status is
    a. DRFT
    b. LOCK
    c. NPUB
    d. STEC
    e. CNCL
3. The “Initiate Change” button can only be pressed on the latest XREF Sequence.
4. A user in the Lead Trade, Test Trade, QAE and Super User can press the “Initiate Change” button.
5. When user clicks the “Initiate Change” button, the fields on the current Sequence are opened and allowed to be edited.
6. All fields are editable except for:
    a. XREF
    b. SEQ
    c. NUCLEAR
    d. RIPOUT #
    e. Originator Name
    f. Originator Badge
    g. Originator Date
    h. Status
    i. Ship #
    j. SSCI
    k. Lead Trade
7. User will make the change they need and press enter.
8. Prompt the user for a required comment detailing what change they made.
    a. Write the comment against SEQ 02
9. Update the Status on original SEQ to CHNG. The data on the original SEQ will not change.
10. Create a new Sequence (example, if user is on XREF ABCDEF SEQ 01, create SEQ 02) with the red mat change.
    a. Update Status on new SEQ to PRTL.
    b. If the record contains any of the following routing steps, and they have been signed off, copy the signatures from XREF Sequence 01 over to XREF Sequence 02:
        i. DRFT Ripout Writer
        ii. NPUB Ship’s Management – Approval
        iii. NPUB Engineering Initial Review
        iv. NPUB Engineering Supervisor Review
        v. NPUB Planning
        vi. STEC Lead Trade – Seawater Concurrence
        vii. STEC Ship Safety Officer - WIP

viii. STEC Lead Trade – WIP Concurrence
ix. STEC Safety Tech - Mechanical
x. STEC Safety Tech - Electrical
xi. STEC Safety Tech - Electronics
xii. STEC Ship's Force – Description of Work

c. If the record contains any of the following routing steps, and they have been signed off, do not copy the signatures from XREF Sequence 01 over to XREF Sequence 02. These routing steps need to be signed again on Sequence 02:
   i. NPUB Lead Trade - Approval
   ii. NPUB QAE – Special Emphasis Review
   iii. NPUB NQCE – Nuclear Interface
   iv. NPUB QAI – Piping Review
   v. NPUB QAI – Mechanical Review
   vi. NPUB QAI – Structural Review
   vii. NPUB QAI – Electrical Review
   viii. NPUB QAI – Supervisor Review
   ix. NPUB QAE – Pre-Issue Review
   x. STEC Test Department - Test Controls
   xi. WORK Lead Trade – Perform Work
   xii. INSP Reinstallation Inspection - Piping
   xiii. INSP Reinstallation Inspection - Mechanical
   xiv. INSP Reinstallation Inspection - Structural
   xv. INSP Reinstallation Inspection - Electrical
   xvi. RFRT Retest Trade
   xvii. RFRT Ship's Force – Re-Test Acceptance
   xviii. RTON Test Director (Salary) – System Restored to Normal
   xix. RTON Inspecting Trade – System Restored to Normal (Hourly)
   xx. RTON Inspecting Trade – Ripout Restored to Normal (Salary)
   xxi. INST Close UNSATs
   xxii. INST Ship's Force – Reinstallation Inspection
   xxiii. AUDT QAE - Closeout Review
   xxiv. AUDT SUPSHIP - Final Review
   xxv. AUDT Ship's Force – Reinstallation Inspection

11. Once all signatures are re-signed, and the open routing step is Lead Trade – Work Approval, set the status to WORK.
12. Proceed as usual.
13. Red Mat Initiate Change process is completed.

1. Need button at the bottom of the Ripout Detail screen titled “Cancel Ripout”.
2. The “Cancel Ripout” button cannot be pressed when the Ripout status is
    a. DRFT
    b. CLSD
    c. CNCL
3. Any user with the Ripout Lead Trade role can press the “Cancel Ripout” button.
4. When user clicks the “Cancel Ripout” button:
    a. User must enter a required comment for why they are cancelling the Ripout
        i. No work performed
        ii. Ripout is superseded by…
    b. Close all open routing steps on the current Sequence
    c. Insert the following routing steps:
        i. If Nuclear, Nuclear Test Trade – Cancel Ripout
        ii. If Non-Nuclear, QAE – Cancel Ripout
        iii. If Non-Nuclear, Test Trade – Cancel Ripout
5. Update Status to CNCL
6. Once all signatures approve the cancellation, the Cancel Ripout process is completed.
7. Status will remain at CNCL for the rest of the life of the ripout.
8. A ripout with a status of CNCL can never be reopened.

IPDE Task 85-1: Ripouts Attachment 6 – Stop/Resume Work Process

1. Need two buttons at the bottom of the Ripout Detail screen titled “Stop Work” and “Resume Work”
2. The “Stop Work” button can only be pressed when the Ripout status is WORK
3. The “Resume Work” button can only be pressed when the Ripout status is STOP
4. Any user with the “Test Department – Test Controls” or “Nuclear Test” role can press the “Stop Work” button and the “Resume Work” button.

Stop Work Process:

5. When user clicks the “Stop Work” button on current sequence:
    a. User must enter a required comment for why they are initiating a Stop Work on the Ripout
    b. Close all open routing steps on the current Sequence
    c. Status will remain at WORK
    d. Insert the following routing steps:
        i. If OPCON = Ship’s Force… Ship’s Force - Stop Work
        ii. Ship’s Management – Stop Work
        iii. Lead Trade – Stop Work
    e. Update Status to STOP
6. Once all signatures approve the Stop Work, the Cancel Ripout process is completed.

Resume Work Process:

7. When user clicks the “Resume Work” button:
    a. User must enter a required comment for whey they are initiating a Resume Work on the Ripout that is currently at Stop Work
    b. Leave Sequence 01 at status STOP
    c. Create Sequence 02 at status STOP
        i. Copy over all signatures from Sequence 01 onto Sequence 02 except for Safety Tech(s)
        ii. Safety Tech Signature will remain open.
    d. Insert the following routing steps before Safety Tech:
        i. If OPCON = Ship’s Force… Ship’s Force - Stop Work
        ii. Ship’s Management – Stop Work
        iii. Lead Trade – Stop Work
    e. Once Safety Tech Signs, update Status to PRTL
    f. The Resume Work process is now completed.
    g. When Status = PRTL, Lead Trade signs for Lead Trade – Perform Work
    h. Remaining routing steps after WORK can now be signed.

Routing #	Routing Name	7G Status
3	Ripout Writer	DRFT
4	Lead Trade - Approval	NPUB
5	Ship's Management - Approval	NPUB
6	NQCE - Nuclear Interface	NPUB
7	QAE – Special Emphasis Review	NPUB
8	Engineering Initial Review	NPUB
9	Engineering Supervisor Review	NPUB
10	QAE – Reentry Control Document Number	NPUB
11	Planning - Blue Tags	NPUB
12	QAI – Piping Review	NPUB
13	QAI – Mechanical Review	NPUB
14	QAI – Structural Review	NPUB
15	QAI – Electrical Review	NPUB
16	QAI – Supervisor Review	NPUB
17	QAE – Pre-Issue Review	NPUB
18	Test Department - Test Controls	STEC
19	Lead Trade – Seawater Concurrence	STEC
20	Ship Safety Officer - WIP	STEC
21	Lead Trade – WIP Concurrence	STEC
22	Safety Tech - Mechanical	STEC
23	Safety Tech - Electrical	STEC
24	Safety Tech - Electronics	STEC
25	Ship's Force – Description of Work	STEC
26	Lead Trade – Perform Work	WORK
27	Inspecting Trade – Piping Inspection	INSP
28	Inspecting Trade – Mechanical Inspection	INSP
29	Inspecting Trade – Structural Inspection	INSP
30	Inspecting Trade – Electrical Inspection	INSP
31	QAI – Piping Inspection	INSP
32	QAI – Mechanical Inspection	INSP
33	QAI – Structural Inspection	INSP
34	QAI – Electrical Inspection	INSP
35	Re-Test Trade	RFRT
36	Ship's Force – Re-Test Acceptance	RFRT
37	Test Director (Salary) – System Restored to Normal	RTON
38	Inspecting Trade – System Restored to Normal (Hourly)	RTON
39	Inspecting Trade – System Restored to Normal (Salary)	RTON
40	Close UNSATs	INST
41	QAE – Closeout Review	AUDT
42	SUPSHIP – Final Review	AUDT
43	Test Engineering – Embedded Testing Required?	AUDT
44	Nuclear Ship's Management - Approval	STEC
45	Nuclear Test – Controls Required	STEC

Routing #	Routing Name	7G Status
3	Ripout Writer	DRFT
4	Lead Trade - Approval	NPUB
5	Ship's Management - Approval	NPUB
6	NQCE - Nuclear Interface	NPUB
7	QAE – Special Emphasis Review	NPUB
8	Nuclear Ship's Management - Approval	STEC
9	Nuclear Test – Controls Required	STEC
10	Safety Tech - Electrical	STEC
11	Safety Tech - Mechanical	STEC
12	Ship's Force – Description of Work	STEC
13	Nuclear Test - WIP	STEC
14	Ship's Force - WIP	STEC
15	Lead Trade – WIP Concurrence	STEC
16	Lead Trade – Perform Work	WORK
17	NQCI – Reinstallation Inspection	INSP
18	Ship's Force – (2) Installation Only	INSP
19	Nuclear Test – Re-test Req'd 1	RFRT
20	Nuclear Test – Re-test Req'd 2	RFRT
21	Nuclear Test –Ready for NCQI Retest Inspection	RFRT
22	NQCI – Re-Test Inspection	RFRT
23	Nuclear Re-Test Completed	RFRT
24	Close UNSATs	RFRT
25	Ship's Force – (3)	RFRT
26	Re-Test Accepted	RFRT
27	Nuclear Test – Restore to Normal	RTON

Attachment 9 Mockup Ripout Detail Screen

Ripout Detail (tab - inactive) | Ripout Detail Add (tab - active)

XREF		SEQ		Nuclear		Ripout_NO	
Originator Name		Originator Badge		Originator Date		Status	
Work Order		WPPN		System/Component		PSA/New Construction	
Authorizing Document Type		Authorizing Document		Ship		Lead Trade	
Drawing 1		Drawing 1 Rev		Drawing 1 Applicable Pages		OR/SEP	
Drawing 2		Drawing 2 Rev		Drawing 2 Applicable Pages			
Drawing 3		Drawing 3 Rev		Drawing 3 Applicable Pages			
Drawing 4		Drawing 4 Rev		Drawing 4 Applicable Pages			

Trade Boundary

SSCI		operations responsible		WAD		NDT required	
Work scope - piping		level 1		Location		blue tags required	
Work scope - mechanical		subsafe		Level		tank closure required	
Work scope - structural		dss-soc		P/S/C		vendor work	
Work scope - electrical		sfcc		Frame		nuclear interface	
key event		fbw		OCT		inspecting trade	
reference drawing 1		reference drawing rev 1		reference drawing pages 1		test trade	
reference drawing 2		reference drawing rev 2		reference drawing pages 2		reason	
reference drawing 3		reference drawing rev 3		reference drawing pages 3		QAL certification req'd	
reference drawing 4		reference drawing rev 4		reference drawing pages 4		Tag record sheet req'd	

controls required

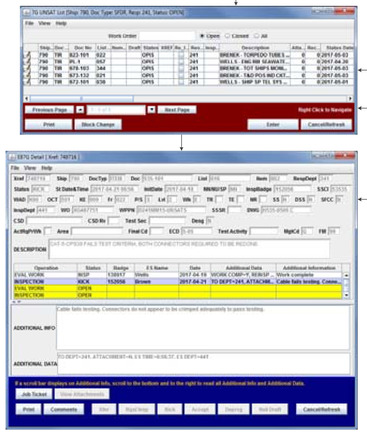
who has opcon		re-test required		Hazardous Energy Tagout Reqd?		REC SEQ NO. Required?	
tagout required		re-test trade 1		WIP Required?		REC SEQ NO	
Safety Tech?		re-test trade 2		WIP #		Embedded Testing Req'd?	
Is it a Seawater Connected System?		re-test trade 3		Radiological Controls Required?			

re-test requirements

Routing	Status	Name	Badge	Dept	Date	OQE
Ripout Writer	S	James Rice	005907	242	5/17/17 0:00	
Lead Trade - Approval	**S**	**Robert Marcione Jr**	**221864**	**243**	**5/18/17 0:00**	
Ship's Management – Approval	S	Jeremiah Miller	150398	271	5/19/17 0:00	
QAE – Special Emphasis Review	**S**	**Benjamin Boyter**	**148462**	**322**	**5/20/17 0:00**	
Engineering Initial Review	S	Giovanni Giarratana	147403	460	5/21/17 0:00	
Engineering Supervisor Review	**S**	**Dennis Jennings**	**140175**	**460**	**5/22/17 0:00**	
Planning	S	John Morris	057432	355	5/23/17 0:00	
QAI – Piping Review	**S**	**Joe Schmo**	**126545**	**444**	**5/24/17 0:00**	
QAI – Supervisor Review	S	John Doe	254115	555	5/25/17 0:00	
QAE – Pre-Issue Review	**S**	**Jane Blend**	**169887**	**222**	**5/26/17 0:00**	
Test Department - Test Controls	S	Benjamin Holmes	144541	272	5/27/17 0:00	
Safety Tech - Electronics	**S**	**Person 1**	**132554**	**111**	**5/28/17 0:00**	
Safety Tech - Mechanical	S	Person 2	231554	222	5/29/17 0:00	
Lead Trade – Perform Work	**O**					
Inspecting Trade – Electrical Inspection	O					
Inspecting Trade – Ripout Restored to Normal (Salary)	**O**					
QAE - Closeout Review	O					
SUPSHIP - Final Review	**O**					

Comment	SEQ	Name	Badge	Dept	Date
EXAMPLE COMMENT TEXT	01	CHRIS CAR	149719	670	9/9/2014
CRITICAL DATA UPDATED: DRAWING 1	02	JILLIAN RA	147135	604	9/9/2014

Sign | Partial | Kick | Initiate Change | Cancel Ripout | Stop Work | Resume Work | Add Comment | Enter | Cancel/Refresh



Ripouts Navigation Menu:

Create Ripout
Search for Ripout
Backlog

Ripout Originator Screen

Work Order
Lead Trade
Type of Authorizing Document
Authorizing Document #
Ship #
Drawing 1, Rev, App. Pages
Drawing 2, Rev, App. Pages
Drawing 3, Rev, App. Pages
Drawing 4, Rev, App. Pages
Trade Boundary
System/Component
Inspecting Trade = 423
(default value)
Test Trade = 275 (default value)
Shop Order #

Ripouts Search Screen:

(fields to search by)

Ripouts Backlog Screen:

Search for open Ripouts that are open to a specific routing step

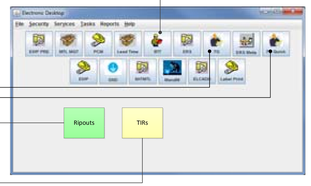
Ripout Writer Screen

SSO #
Level 1?
SUBSAFE?
OCT
WAD
Work Scope
WPPN
Blue Tags Required?
NDT Required?
Location: Ship/Shop
If Ship... Location 1
If Ship... Location 2
If Ship... Frame
Reason
Lead Trade
Vendor Work to be Performed?
Radiological Controls Required?
Reference Drawing 1, Rev, App. Pages
Reference Drawing 2, Rev, App. Pages
Reference Drawing 3, Rev, App. Pages
Reference Drawing 4, Rev, App. Pages
Trade Boundary
Controls Required

Ripout Detail Screen

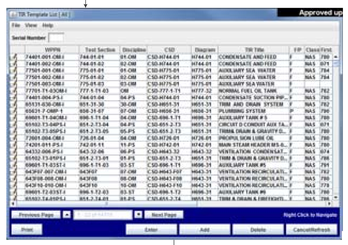
Ripout #

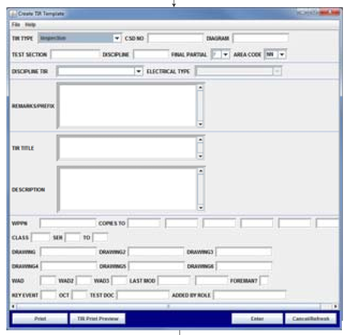
Routings
Signatures
OQE
Comments

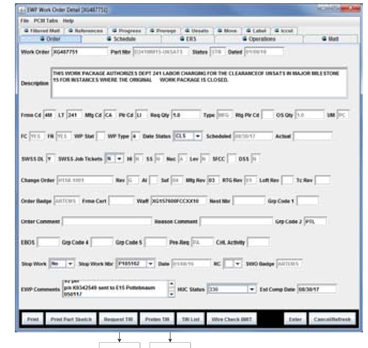


TIRs Navigation Menu:

Create TIR
Search for TIR
Backlog
Lock on Ship

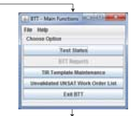


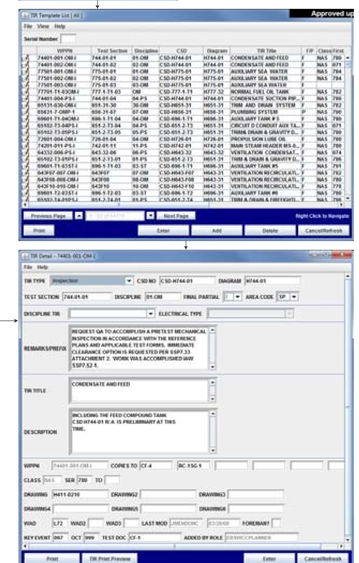




Request TIR

View Template





TIR Detail Screen

TIR Attribute Data:					
TIR #					
Nuclear					
Ship					
WPPN					
Work Order					
Drawing 1		Drawing 1 Rev		Applicable Sheets	
Drawing 2		Drawing 2 Rev		Applicable Sheets	
Drawing 3		Drawing 3 Rev		Applicable Sheets	
Drawing 4		Drawing 4 Rev		Applicable Sheets	
Drawing 5		Drawing 5 Rev		Applicable Sheets	
Drawing 6		Drawing 6 Rev		Applicable Sheets	
Drawing 7		Drawing 7 Rev		Applicable Sheets	
Drawing 8		Drawing 8 Rev		Applicable Sheets	
Drawing 9		Drawing 9 Rev		Applicable Sheets	
Drawing 10		Drawing 10 Rev		Applicable Sheets	
TIR Title (System, Installation)					
Test Doc					
Key Event					
WAD 1					
WAD 2					
WAD 3					
OCT					
CSD NO		CSD Rev			
DIAGRAM		Diagram Rev			
Inspection Dept					
Verification					

UNSATs

Item #	Department Responsible	Inspection Department	Foreman Code	Reinspection Not Req'd	Test	Defect/Final Code		Frame #	P/C/S	Level	WAD	Key Event*	SUBSAFE	DSS-SOC	SFCC	Deficiency	Remarks
1																	
2																	
3																	

Routings

#	Routing Name	Status	Signature	Badge	Dept	Date	OQE	Comments
1	Template Reviewer	Complete	Jillian Rasmussen	147135	604	4/27/2017		Template is correct.
2	Inspect/Record UNSATs	Open						
3	Trade Review	Open						
4	Ship's Management	Open						
5	STO	Open						
6	Publish	Open						

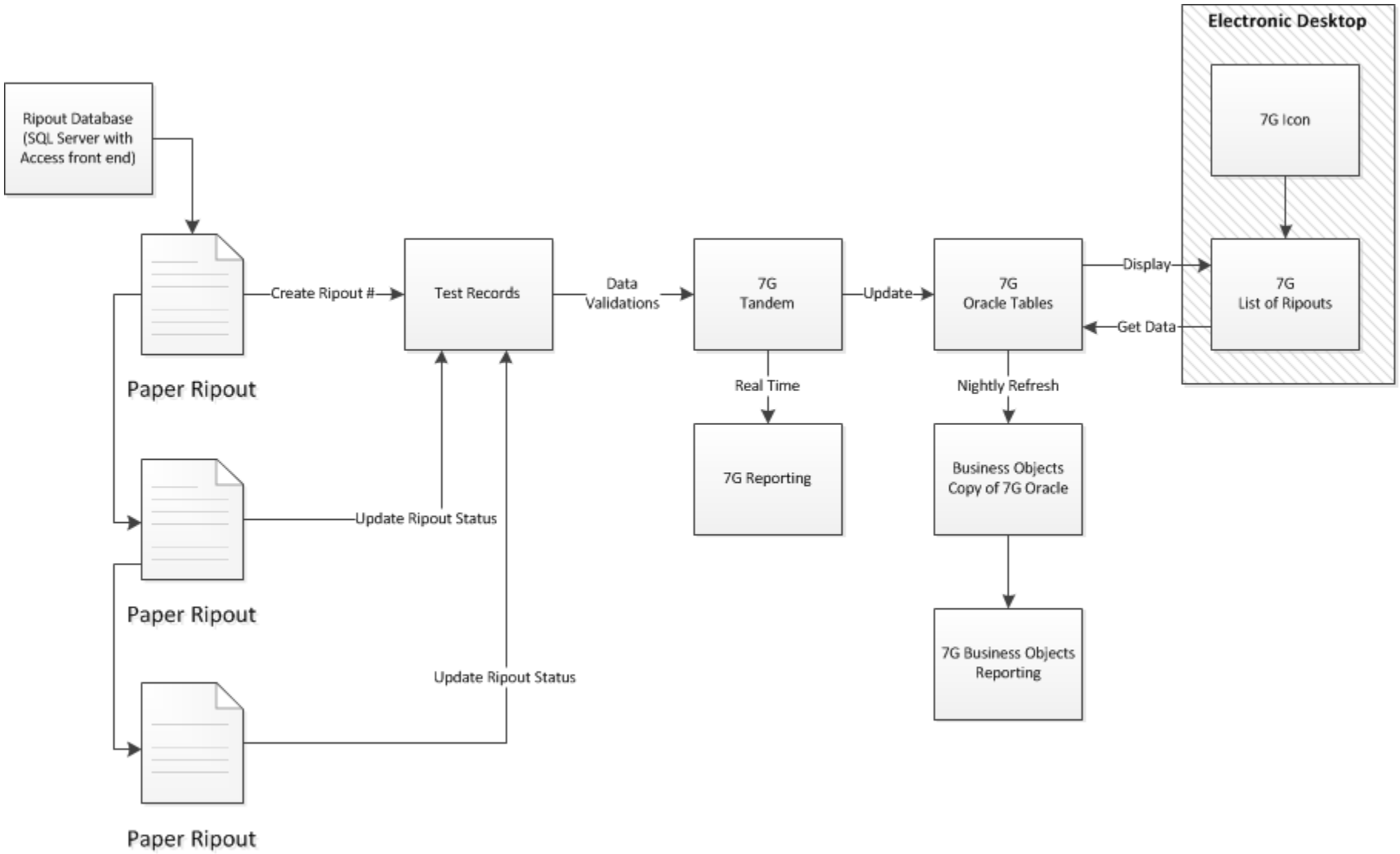
Ripouts Search Screen:

(fields to search by)

Ripouts Backlog Screen:

Search for open Ripouts that are open to a specific routing step

Ripouts: Current State



Ripouts: Future State