Attachment K

PSPO Change Management Process and Procedure

U.S. Customs & Border Protection

Enforcement Systems Branch

PSPO Change Management Process and Procedure

November 2, 2006

Document Number:
PSPO Change Process & Procedure

Change Control Log

Revised by	Date	Description of Revisions
[redacted] (b) (6)	6/01/2005	Initial Draft
	10/04/2006	• Changed title to reflect branch name change to program office • Updated document to include approval of emergencies by the Branch Chief • Updated document to reflect approval of internal change requests by PSPO ERB • Changed references to Project CM Representative to PSPO CM
	10/04/2006	Updated with edits received from PSPO CM Team
	11/02/2006	Updated with new emergency move instructions

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Passenger Systems Program Office Change Management Process and Procedure

1. Introduction

The Passenger Systems Program Office (PSPO) follows the change management process and procedures established within this document.

2. Purpose

The purpose of this document is to define the change management process, including roles, responsibilities, and procedures followed at PSPO. The procedures within this document apply to all PSPO staff members responsible for managing changes to projects.

3. Related Reference Documents

Table 1. Reference Documents

File Name	Document Name	Location in Dimensions
Branch-CMP	*ESB Configuration Management Plan*	(b)(5); (b)(7)(E) [redacted]
Joint SDD and ISD Emergency Change Request Approval Procedure	*Joint SDD and ISD Emergency Change Request Approval Procedure*	[redacted]
Change Request Questionnaire1	*Change Request Questionnaire*	[redacted]
Engineering Review Board Charter	*ESB Engineering Review Board Charter*	[redacted]
Engineering Review Board Procedure	*ESB Engineering Review Board Procedure*	[redacted]
Project CCB Procedure	*ESB Project Change Control Board Procedure*	[redacted]
Branch-CR Impact Analysis Template	*ESB Change Request Impact Analysis*	[redacted]
Branch-CR Analysis & Design Template	*ESB Change Request Analysis & Design*	[redacted]
Branch-CRF Template (Excel)	*Change Request Form* (Excel Version)	[redacted]
Branch-CRF Template (Word)	*Change Request Form* (Word Version)	[redacted]
Branch-CRF Tracking Log	*ESB Tracking Log*	[redacted]
Branch-User Request for Change	*User Request for Change to Certified User Requirements*	[redacted]
Branch-Unit Test Problem Template	*Unit & Integration Testing Problem Report (UTR)*	[redacted]

4. Roles and Responsibilities

Table 2. Change Management Roles and Responsibilities

Role	Responsibilities
Change Initiator (e.g., System Sponsor, User, Developer, Team Lead, Testing Branch)	• Initiate change request (e.g., change to certified user requirements, Testing Problem Report [TPR], Operational Problem Report [OPR], Unit & Integration Testing Problem Report [UTR]) • Attend Project Change Control Board (CCB) and PSPO Engineering Review Board (ERB), as appropriate • Approve emergency change requests
Program Office Director / Designee	• Approve emergency change requests • Convene and chair ERB or delegate a designee
Branch Chief / Designee	• Approve changes as emergencies
Team Lead	• Convene and chair Project CCB • Bring appropriate change requests before the PSPO ERB • Attend PSPO ERB • Receive change requests • Document change requests in *Change Request Form* • Evaluate change requests • For changes that meet emergency requirements, obtain Branch Chief's approval to handle change as an emergency and, if approval obtained, ensure *Change Request Questionnaire* is completed • Notify PSPO Configuration Management (CM) of change request status • Direct analysis of change (*Change Request Impact Analysis* form) prior to CCB or ERB meeting • Direct in-depth analysis of change (*Change Request Analysis & Design* form) for all CCB or ERB approved change requests • Ensure approved changes are made
PSPO CM	• Ensure projects follow appropriate change management process and procedures • Maintain *CRF Tracking Log* with updated statues of all change requests • Notify code migrator of all approved change requests

Role	Responsibilities
Code Migrator	• Do not move into the appropriate environment any change request without notification from PSPO CM that the change has received the necessary approvals

5. Change Management Process Flow Chart

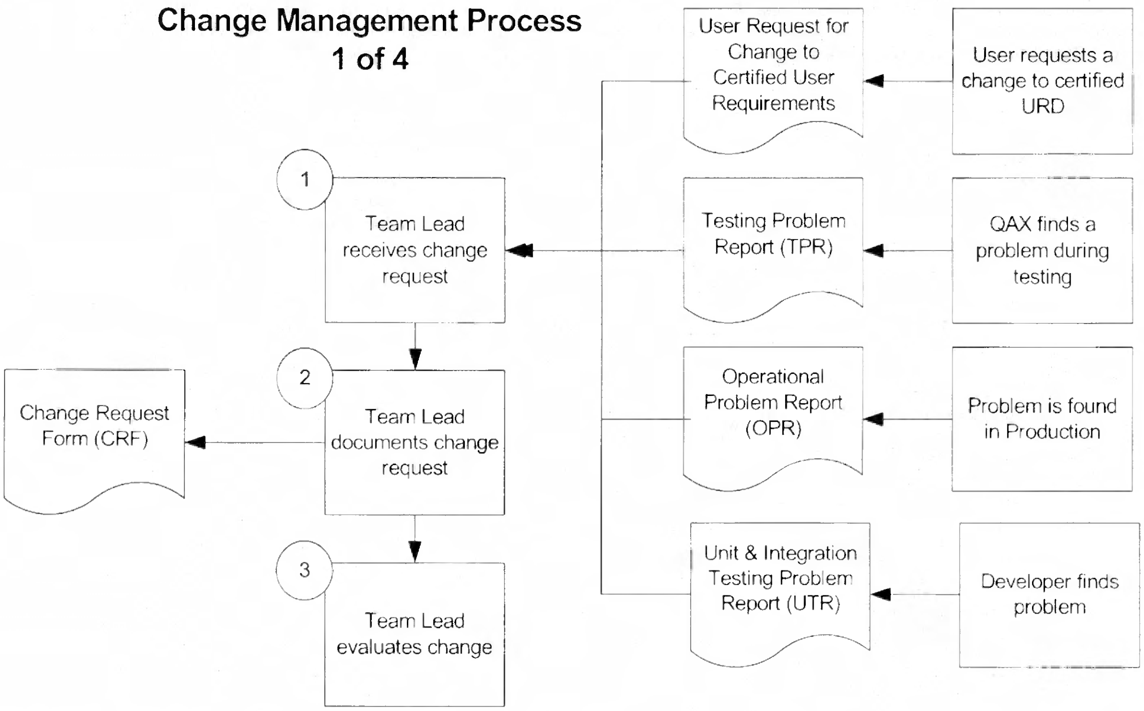

Figure 1. Change Management Process (1 of 4)

Change Management Process
2 of 4

Note: To be classified as an "emergency," the change must meet the requirements mandated in the *Joint SDD/ISD Emergency Change Request Approval Procedure* and meet one of the following criteria: Program failure that prevents the organization from meeting OIT or CBP mission; Data corruption that prevents the organization from meeting OIT or CBP mission; Unscheduled production outage that prevents the organization from meeting OIT or CBP mission; User is unable to perform a mission critical task because there is no acceptable or reasonable workaround

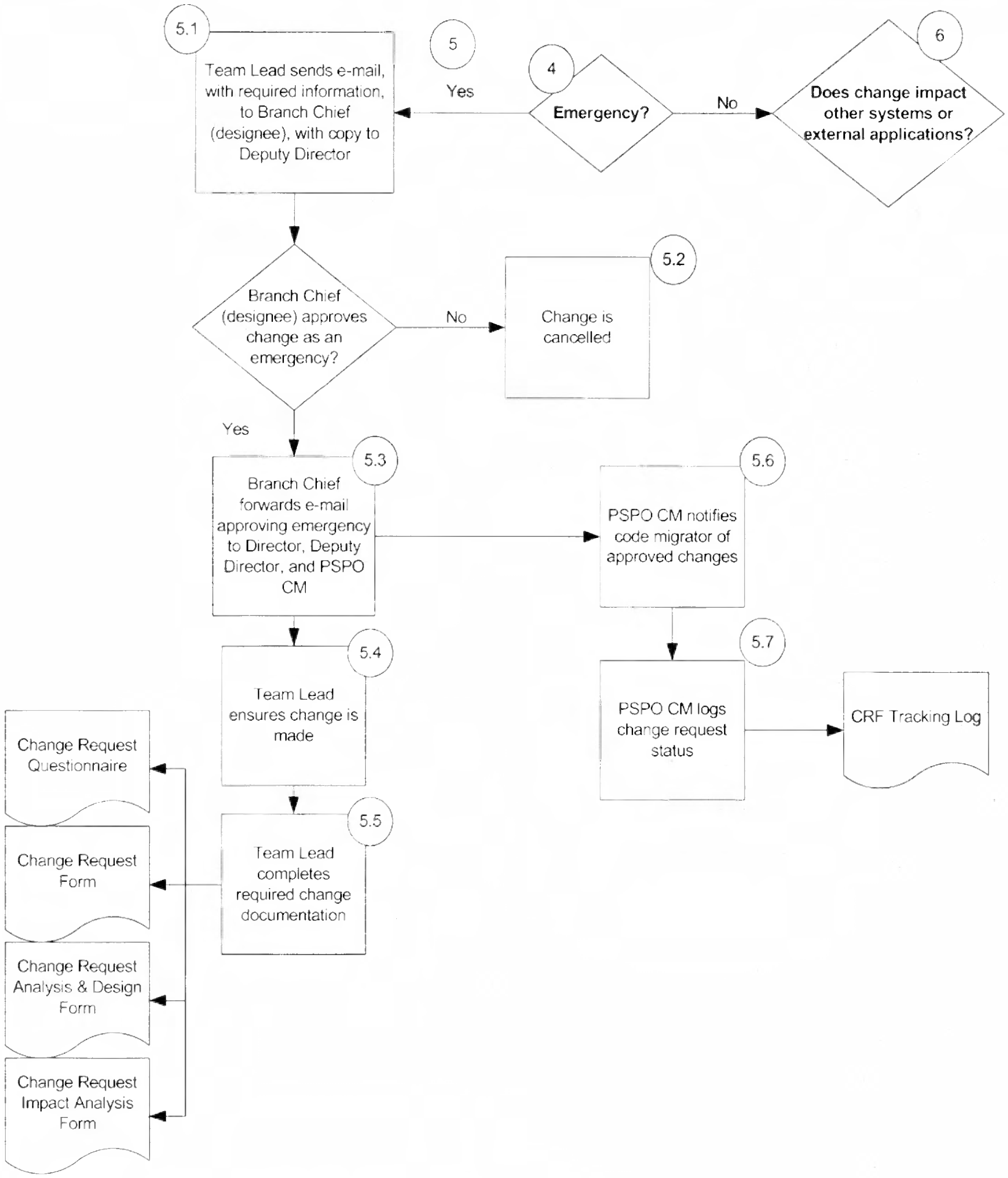

Figure 2. Change Management Process (2 of 4)

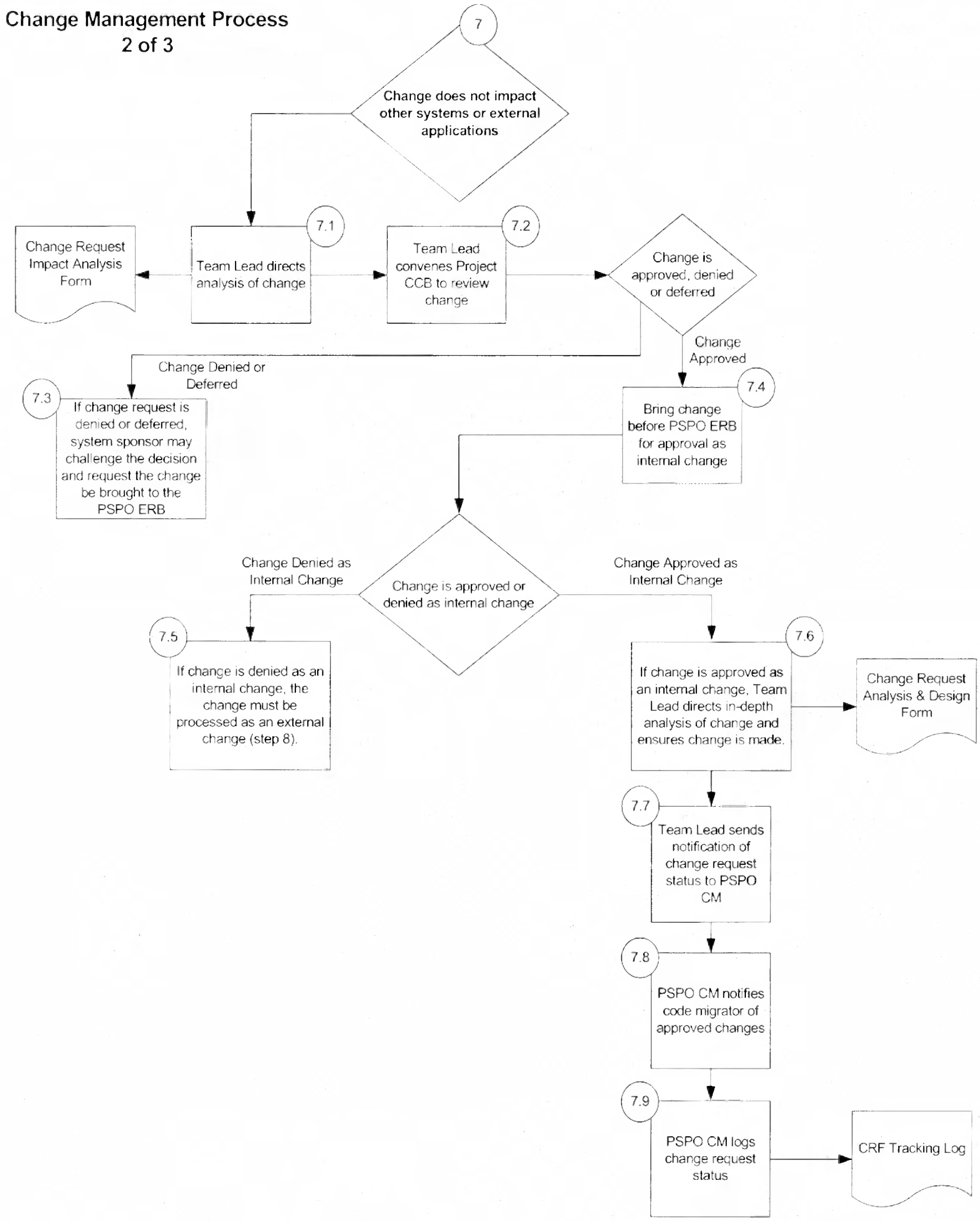

Figure 3. Change Management Process (3 of 4)

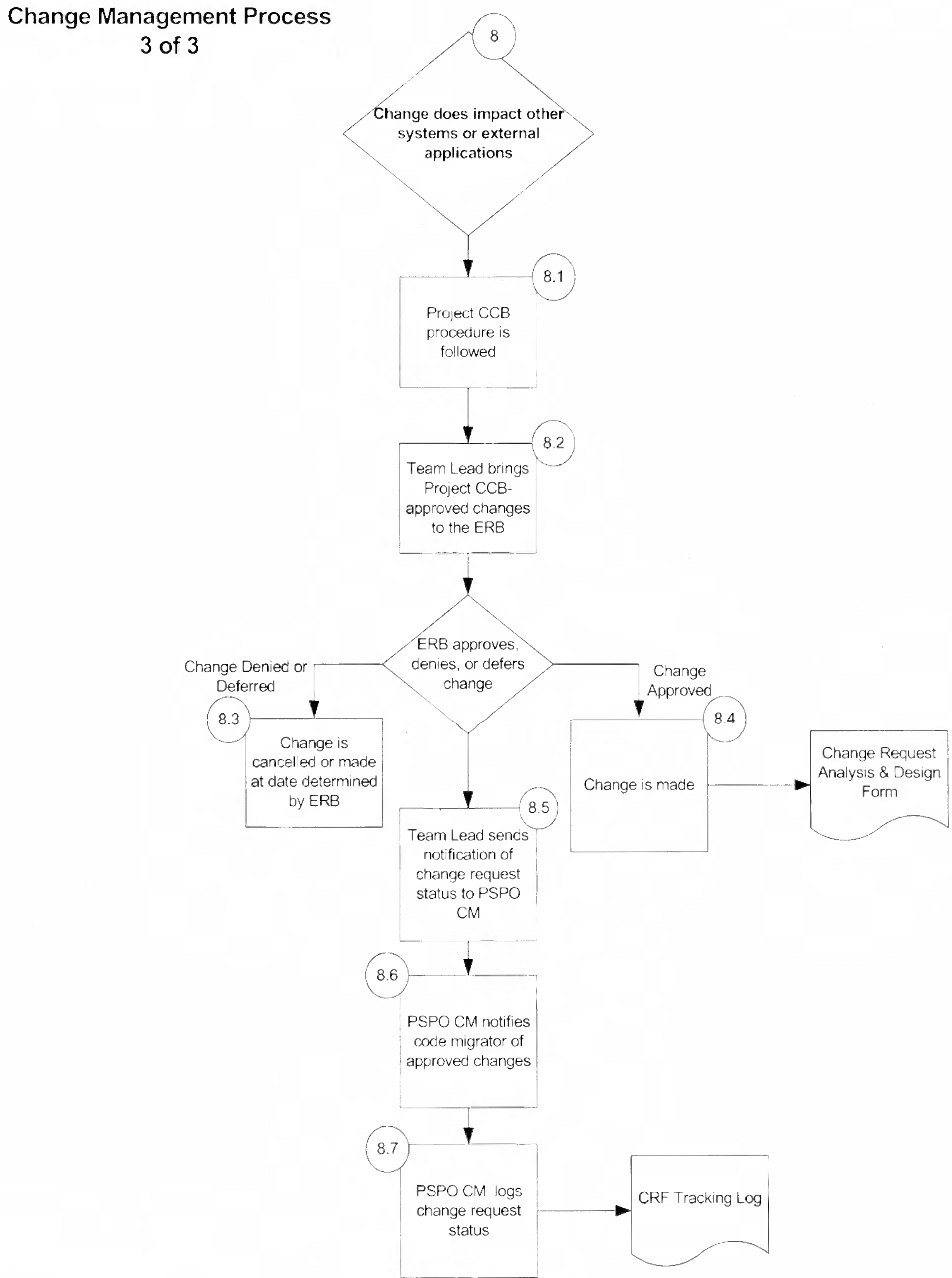

Figure 4. Change Management Process (4 of 4)

6. Change Management Procedure

Changes may be initiated for a variety of reasons (e.g., providing new capability desired by the user, correcting product defects or deficiencies, inserting new technology, and updating documentation). Table 3 details the PSPO change management procedure.

Table 3. PSPO Change Management Procedure

Step	Action	Role
1	Changes may be initiated by one of the following methods. Each of these documents is referred to as a "change request."	
	If requesting a change to user requirements that have already been certified, complete and submit to the Team Lead a *User Request for Change to Certified User Requirements* form. (Appendix A.)	User
	If problem was found during external testing, complete and submit to the Team Lead a TPR.	QAX Tester
	If problem was found in Production, complete an OPR.	Team Lead
	If problem was found in during development or unit testing, complete and submit to the Team Lead a UTR. (Appendix B)	Developer
2	Log the change request in the project's *Change Request Form* (Appendix C).	Team Lead
	As *Change Request Forms* are updated with new information (e.g., status, CCB decision), send copy of updated form to PSPO CM, who updates the *CRF Tracking Log* (Appendix D).	Team Lead PSPO CM
	Note that the requirement to send **copies** of *Change Request Forms* to PSPO CM does not supersede the Team Lead's responsibility to store *Change Request Forms* in the appropriate project Dimensions folder.	
3	Evaluate the change.	Team Lead

Step	Action	Role
4	If the change is an emergency request, ensure the request meets requirements for an emergency change request. (Refer to the *Joint SDD and ISD Emergency Change Request Approval Procedure.*) To qualify as an emergency, the change must meet one of the criteria below: • Program failure that prevents the organization from meeting OIT or CBP mission • Data corruption that prevents the organization from meeting OIT or CBP mission • Unscheduled production outage that prevents the organization from meeting OIT or CBP mission • User is unable to perform a mission critical task because there is no acceptable or reasonable workaround If the change does **not** meet standards for an emergency, continue to step 6. If the change **does** meet standards for an emergency, continue to step 5. **Please note that emergency moves must be avoided if at all possible.**	Team Lead
5	**Emergency Change Requests**	
5.1	Send an e-mail to the Branch Chief (designee) requesting approval to handle the change as an emergency. Copy the Deputy Director on the e-mail. The e-mail must contain the following information: • Dimensions project number • Affected PSPO application or TECS transaction • Description of problem • Description of change, including what components are being changed (mainframe, client, server, database, MQ, etc.) • Indication of whether a system outage is required to implement change • Indication of whether coordination with other groups is required and identification of those groups (Database, CICS, UNIX, Middleware, Tivoli, Training, field users, etc.)	Team Lead
5.2	If the Branch Chief (designee) does not approve the change, the change is cancelled.	Team Lead
5.3	If the Branch Chief (designee) does approve the change, forward the e-mail with the approval to the Director, Deputy Director, and PSPO CM.	Branch Chief
5.4	If change is approved, ensure the change is made.	Team Lead

Step	Action	Role
5.5	For approved emergency change requests, ensure the required change documentation is completed: • *Change Request Questionnaire* • *Change Request Form* • *Change Request Impact Analysis* form • *Change Request Analysis & Design* form	Team Lead
5.6	Notify code migrator of all approved changes. No change will be moved into the PROD environment without the proper approvals.	PSPO CM
5.7	Update the *CRF Tracking Log* with the status of the change request.	PSPO CM
6	If the change is not an emergency, evaluate the change to determine if the change impacts other systems or external applications.	Team Lead
7	**Changes that do not impact other systems or external applications**	
7.1	Direct analysis of change. Ensure the *Change Request Impact Analysis* form is completed	Team Lead
7.2	Convene a Project CCB.	Team Lead
7.3	If the Project CCB denies or defers the change, the system sponsor may challenge the decision and request that the change be brought to the PSPO ERB.	Project CCB
7.4	If the Project CCB approves the change, ensure the change is brought before the PSPO ERB for approval as an internal change.	Team Lead
7.5	If the PSPO ERB does not approve the change as an internal change, ensure the change is processed as an external change (step 8).	Team Lead
7.6	If the PSPO ERB approves the change as an internal change, direct in-depth analysis of change. Ensure the *Change Request Analysis & Design* form is completed and the change is made.	Team Lead
7.7	Notify PSPO CM of the status of the change request.	Team Lead
7.8	Notify code migrator of all approved changes. No change will be moved into the SAT environment without the proper approvals.	PSPO CM
7.9	Update the *CRF Tracking Log* with the status of the change request.	PSPO CM
8	**Changes that do impact other systems or external applications**	
8.1	Convene a Project CCB.	Team Lead
	If the Project CCB denies or defers the change, the system sponsor may challenge the decision and request that the change is brought to the PSPO ERB.	Project CCB
	If the Project CCB approves the change, direct analysis of change. Ensure the *Change Request Impact Analysis* form is completed.	Team Lead
	Notify PSPO CM of the status of the change request.	Team Lead

Step	Action	Role
	Update the *CRF Tracking Log* with the status of the change request.	PSPO CM
8.2	If the Project CCB approves the change, bring the change request before the PSPO ERB.	Team Lead
8.3	If the PSPO ERB denies or defers the change, the change is cancelled or made at a date determined by the PSPO ERB.	PSPO ERB
8.4	If the PSPO ERB approves the change, direct in-depth analysis of change. Ensure the *Change Request Analysis & Design* form is completed. Ensure the change is made.	Team Lead
8.5	Notify PSPO CM of the status of the change request.	Team Lead
8.6	Notify code migrator of all approved changes. No change will be moved into the QAX environment without the proper approvals.	PSPO CM
8.7	Update the *CRF Tracking Log* with the status of the change request.	PSPO CM

Appendix A. User Request for Change to Certified User Requirements

If, after certification of user requirements, the user requests a change to the user requirements, the following will occur:

1. The Team Lead sends to the user the *User Request for Change to Certified User Requirements* form.
2. The user enters the following information in the appropriate areas of the form.
   - Name of the PSPO Team Lead
   - Number of the project for which the change is being requested
   - Name of the user requesting the change
   - Date the change is being requested
   - User point of contact name, phone number, and address
   - Description of the change being requested
3. The user returns the completed form to the Team Lead.
4. Upon receipt of the completed form, the Team Lead takes the following steps.
   - Transfers the information received from the user to the appropriate areas of the *Change Request Form* (Appendix C).
   - Enters the ID number assigned on the *Change Request Form* in the **ID** field of the *User Request for Change to Certified User Requirements* form.
   - Stores the completed *User Request for Change to Certified User Requirements* form in the Dimensions SDLC folder.

User Request for Change to Certified User Requirements

ID:	Assigned by the PSPO Team Lead
To:	*<<Insert name of PSPO Team Lead>>*
Change to Project #:	*<<Insert # of project for which change is being requested>>*
From:	*<<Insert name of user requesting the change>>*
Date:	*<<Insert date change is being requested>>*

User Point of Contact (POC) Information For Change Being Requested:

POC Name:	*<<Insert name of user POC>>*
POC Phone:	*<<Insert phone number of user POC>>*
POC Address:	*<<If user POC has ability to email attachments to the Passenger Systems Program Office (PSPO), insert user POC email address. If user POC does not have ability to email attachments to PSPO, insert user POC mailing address.>>*

Description of Change: *<<Describe change being requested>>*

Appendix B. Unit & Integration Testing Problem Report (UTR)

The Unit & Integration Testing Problem Report (UTR) is used to record problems found by the developers. All problems found for one project are recorded on one UTR

Table 4. UTR Form Fields

Field Name	Completion Instructions
#	UTR numbers are assigned sequentially, with the first UTR assigned #1
Test Case #	Test case number on the *Unit Test Plan* in which the problem was discovered
Type	Type is either *U* (for unit testing) or *I* (for integration testing)
Status	UTR is either *Open* or *Close*.
Date Opened	Date problem was discovered and reported on the UTR
Reported By	Name of developer who discovered the problem
Problem Description	Description of the problem
SL	Severity level. For a description of these levels, refer to the PSPO *Configuration Management Plan*.
Developer Assigned	Developer assigned to fix the problem
Rework Status	Rework statuses are: Work in Progress, Pending User Feedback, Pending Review Board Decision, Ready to Retest, and Fixed
Planned Fix Date	Approximate date on which the developer plans to fix the problem
Closed Date	Date the problem has been fixed
Resolution/Comments	Description of the actions taken to resolve the problem, and any comments the developer wishes to add

Unit & Integration Testing Problem Report (UTR)

Project Number: xxxx-xxx

#	Test Case #	Type	Status	Date Opened	Reported By	Problem Description	S L	Developer Assigned	Rework Status	Planned Fix Date	Closed Date	Resolution / Comments

Appendix C. Change Request Form

Multiple change requests may be recorded on the *Change Request Form*. This allows Team Leads to track all requests for changes to their project on one form. Below are instructions for completing the *Change Request Form*.

1. The *Change Request Form* is used to record requests for project changes (as detailed in the PSPO *Configuration Management Plan*) and requests for changes to baselined branch documentation.

2. The first line of the form is completed once to cover the entire project. The body of the form is used to record actual change requests.

3. There are two versions of the *Change Request Form*: one in Word and one in Excel. The Team Lead may select the format that will best serve his or her project's needs.

4. If more change request areas are needed on the Word version *Change Request Form,* the Team Lead may add as many requests as needed to accommodate changes requested throughout the life of the project.

5. Fields on the *Change Request Form* and completion instructions follow.

Table 5. Change Request Form Fields

Field Name	Completion Instructions
Project change requests: Complete the following information for the **entire** project. **PSPO baselined document change requests:** Follow the instructions given below.	
Project Name: **or** **Document File Name:**	**Project change requests:** Enter the name of the project. **PSPO baselined document change requests:** Enter the file name of the document for which changes are being requested.
Project #*:	**Project change requests:** Enter associated project number. **PSPO baselined document change requests:** Enter *N/A*.
DVL Unit #:	**Project change requests:** If all requested changes listed on the form relate to the same development unit number, enter the development unit number. Then leave blank the **DVL Unit #** field in the change request portion of the form. If all requested changes listed on the form do not relate to the same development unit number, leave this field blank. Then complete the **DVL Unit #** field of the change request portion of the form. **PSPO baselined document change requests:** Enter *N/A*.
Team Lead: **or** **Requestor's Name:**	**Project change requests:** Enter the name of the Team Lead. **PSPO baselined document change requests:** Enter the name of the person requesting the change.
For **each** change request, enter the following information.	

Field Name	Completion Instructions
ID*	**Project change requests:** Assign 1 to the first change request. Subsequent requests are incremented by 1. **PSPO baselined document change requests:** Request this number from the PSPO Project Support Team. The **Project #** or **PSPO** (if PSPO baselined document) plus the ID number equals the CRF number to be tracked by the PSPO Project Support Team.
CR Date:	Enter the date that it was discovered a change needed to be made.
Priority:	Assign the change request a priority in accordance with priority levels established in the PSPO *Configuration Management Plan*.
Description of Requested Change:	Describe the change being requested. Include the reason the change is necessary.
Submitting Office:	Enter the name of the office from which the change originated. If internal, enter *PSPO*.
Point of Contact:	Enter the name of the person who would be considered the subject matter expert regarding the reason for the change.
Phone Number:	Enter a phone number for the point of contact.
Address:	If internal, enter *PSPO*. If external and the **Point of Contact** has the ability to receive emails with attached documentation from PSPO, enter the **Point of Contact**'s email address. If external and the **Point of Contact** does not have the ability to receive emails with attached documentation from PSPO, enter the **Point of Contact**'s mailing address.
Rev. Board Name(s)	Enter the name(s) of the review board(s) that will be evaluating the change (Project CCB and/or PSPO ERB).
Rev. Board(s) Mtg. Date(s)	Enter the date(s) that the review board(s) will meet to review the change request.
DVL Unit #	If this form lists change requests that affect more than one development unit, enter the number of the development unit that will be affected by the requested change.
Rev. Board(s) Decision(s)	Enter the decision(s) made by the review board(s) regarding the change request.
Date Change Implemented	For approved change requests, enter the date the change was implemented.
Comments	Enter any comments relevant to the change request.

*Project # + ID = CRF Number

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Change Request Form

Project Name: or Document File Name:	Project #*:	DVL Unit #:	Team Lead: or Requestor's Name:

ID*	CR Date	Priority	Description of Requested Change	Submitting Office	Point of Contact	Phone Number	Address

	Rev. Board Name(s)	Rev. Board(s) Mtg Date(s)	DVL Unit #	Rev. Board(s) Decision(s)	Date Change Implemented	Comments

ID*	CR Date	Priority	Description of Requested Change	Submitting Office	Point of Contact	Phone Number	Address

	Rev. Board Name(s)	Rev. Board(s) Mtg Date(s)	DVL Unit #	Rev. Board(s) Decision(s)	Date Change Implemented	Comments

ID*	CR Date	Priority	Description of Requested Change	Submitting Office	Point of Contact	Phone Number	Address

	Rev. Board Name(s)	Rev. Board(s) Mtg Date(s)	DVL Unit #	Rev. Board(s) Decision(s)	Date Change Implemented	Comments

Note: Project # + ID = CRF Number

Appendix D. PSPO CRF Tracking Log

The Project Support Team will track all *Change Request Forms* created at PSPO. The *PSPO CRF Tracking Log* is an Excel spreadsheet used to track *Change Request Forms*.

Fields on the *PSPO CRF Tracking Log* and completion instructions are as follows.

Table 6. PSPO CRF Tracking Log Fields

Field Name		Completion Instructions
CRF #		The CRF # is derived from the *Change Request Form*. If the *Change Request Form* lists changes to a project, this number is the **Project** # followed by a dash and the **ID** number. If the *Change Request Form* lists changes to a PSPO baselined document, this number is *PSPO* followed by a dash and the **ID** number assigned by the Project Support Team.
CRF Owner		Enter the name identified as either the **Team Lead** or the **Requestor's Name** on the *Change Request Form*.
Date CRF Received		Enter the date the *Change Request Form* was received by the Project Support Team.
Review Board Information	**Project CCB and/or PSPO ERB**	Indicate the review board(s) that will review the change.
	Project CCB Decision	Indicate the decision made by the Project CCB regarding the CRF. Valid values are Approved, Disapproved, and Deferred.
	PSPO ERB Decision	For those CRFs that are subject to PSPO ERB review, indicate whether the decision made by the PSPO ERB. Valid values are Approved, Disapproved, and Deferred.
CRF Status	**Open**	Indicate the current status (**Open**, **Closed** or **Deferred**) of the *Change Request Form*. If *Change Request Form* is closed, enter the date the form was closed in the **Comments** field. If the *Change Request Form* is deferred, enter an explanation of the deferral in the **Comments** field.
	Closed	
	Deferred	
Change Implemented?		Indicate if the change has been implemented. Valid values are *Y* and *N*. If change has been implemented, enter the date the change was implemented in the **Comments** field.
Comments		Enter any appropriate comments.

			Review Board Information			CRF Status				
CRF #	CRF Owner	Date CRF Received	Project CCB and/or ERB	Project CCB Decision	ESB ERB Decision	Open	Closed	Deferred	Change Implemented?	Comments

PSPO CRF Tracking Log