

Change Management Process and Procedures

Fermilab
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GENERAL			
Description	This document establishes a Change Management (CM) process and procedures for the Fermilab Computing Division. Adoption and implementation of this process and supporting procedures ensures the timely recovery of services and will minimize the adverse impact on business operations.		
Purpose	The purpose of this process is to establish a Change Management (CM) process for the Fermilab Computing Division. Adoption and implementation of this process provides a structured method to submit and approve changes to the IT infrastructure to minimize risk and disruption to services.		
Applicable to	<i>Change Management process in support of the ISO20000 initiative.</i>		
Supersedes	N/A		
Document Owner	<i>Change Manager</i>	Owner Org	<i>Computing Division</i>
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VERSION HISTORY			
Version	Date	Author(s)	Change Summary
1.0	11/18/09	David Whitten – Plexent LLP	Initial document
2.0	12/1/2010	Mike Kaiser	Refined Emergency Change Process

TABLE OF CONTENTS

CHANGE MANAGEMENT GOAL, BENEFITS 4

CHANGE MANAGEMENT OVERALL PROCESS FLOW 5

CHANGE MANAGEMENT PROCESS ROLES AND RESPONSIBILITIES..... 6

CHANGE MANAGEMENT RACI MATRIX..... 8

12.1 CHANGE MANAGEMENT RECORDING AND ACCEPTANCE PROCEDURE 14

 12.1 CHANGE MANAGEMENT RECORDING AND ACCEPTANCE BUSINESS PROCEDURE RULES 15

 12.1 CHANGE MANAGEMENT RECORDING AND ACCEPTANCE PROCEDURE NARRATIVE 15

 12.1 CHANGE MANAGEMENT RECORDING & ACCEPTANCE RISKS 18

 12.1 CHANGE MANAGEMENT RECORDING AND ACCEPTANCE RECORDS AND OUTPUTS..... 18

12.2 CHANGE MANAGEMENT CATEGORIZATION, CLASSIFICATION, AND PRIORITIZATION PROCEDURE 19

 12.2 CHANGE MANAGEMENT CATEGORIZATION, CLASSIFICATION, AND PRIORITIZATION PROCEDURE RULES 20

 12.2 CHANGE MANAGEMENT CATEGORIZATION, CLASSIFICATION, AND PRIORITIZATION NARRATIVE 20

 12.2 CHANGE MANAGEMENT CATEGORIZATION, CLASSIFICATION, AND PRIORITIZATION RISKS 21

12.3 CHANGE MANAGEMENT AUTHORIZATION PROCEDURE 22

 12.3 CHANGE MANAGEMENT AUTHORIZATION PROCEDURE RULES 23

 12.3 CHANGE MANAGEMENT AUTHORIZATION PROCEDURE NARRATIVE 23

 12.3 CHANGE MANAGEMENT CATEGORIZATION AND PRIORITIZATION RISKS 25

12.4 CHANGE MANAGEMENT COORDINATION AND DEVELOPMENT PROCEDURE 26

 12.4 CHANGE MANAGEMENT COORDINATION AND DEVELOPMENT PROCEDURE RULES 27

 12.4 CHANGE MANAGEMENT COORDINATION AND DEVELOPMENT NARRATIVE 27

 12.4 CHANGE MANAGEMENT COORDINATION AND DEVELOPMENT RISKS 28

12.5 CHANGE MANAGEMENT APPROVAL PROCEDURE 30

 12.5 CHANGE MANAGEMENT APPROVAL PROCEDURE RULES 31

 12.5 CHANGE MANAGEMENT APPROVAL PROCEDURE NARRATIVE 31

 12.5 CHANGE MANAGEMENT APPROVAL RISKS 33

12.6 CHANGE MANAGEMENT EVALUATION PROCEDURE..... 34

 12.6 CHANGE MANAGEMENT EVALUATION PROCEDURE RULES 35

 12.6 CHANGE MANAGEMENT EVALUATION PROCEDURE NARRATIVE..... 35

 12.6 CHANGE MANAGEMENT EVALUATION RISKS 38

EMERGENCY CHANGE MANAGEMENT PROCEDURE..... 39

 EMERGENCY CHANGE MANAGEMENT PROCEDURE RULES 40

 EMERGENCY CHANGE MANAGEMENT PROCEDURE NARRATIVE 40

 EMERGENCY CHANGE MANAGEMENT RISKS..... 42

NORMAL PRE-APPROVED (STANDARD) CHANGE MANAGEMENT PROCEDURE..... 43

 NORMAL PRE-APPROVED (STANDARD) CHANGE MANAGEMENT PROCEDURE RULES 44

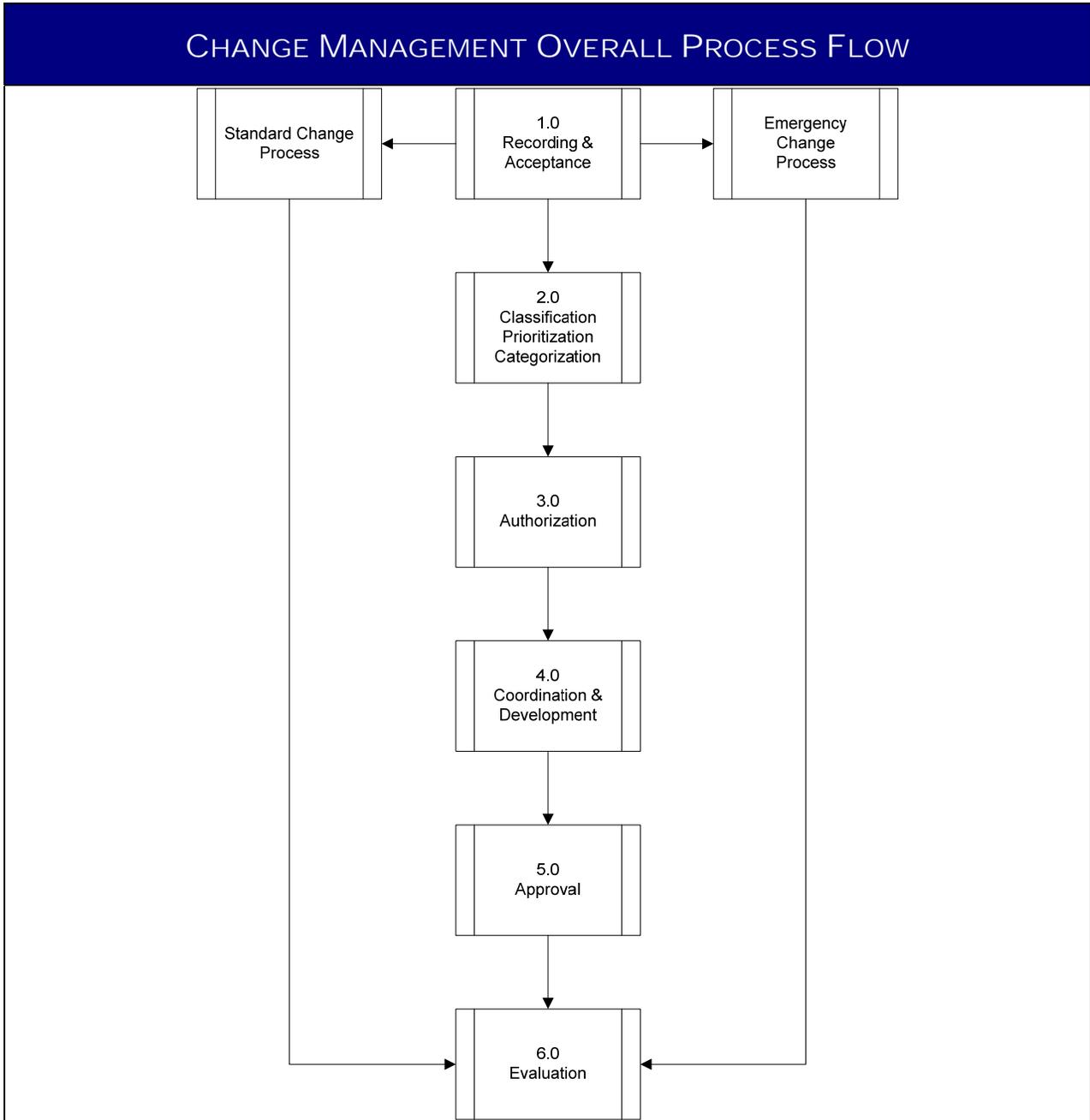
 NORMAL PRE-APPROVED (STANDARD) CHANGE MANAGEMENT PROCEDURE NARRATIVE 44

 NORMAL PREAPPROVED (STANDARD) CHANGE MANAGEMENT RISKS 46

SUPPORTING DOCUMENTS 47

CHANGE MANAGEMENT GOAL, BENEFITS

Goal	<ul style="list-style-type: none"> • Utilize standardized methods and procedures to process Requests for Change (RFCs) efficiently, effectively and in a timely manner • Minimize business impact and Change related incidents and problems • Reduce the number of backed-out and failed changes • Increase the number of changes an organization can absorb without adverse impact <ul style="list-style-type: none"> ○ Respond quickly to changing business requirements ○ Enable the business to swiftly address customer dissatisfaction ○ Allow the business to rapidly respond to changing legislation • Minimize the exposure to risk
Benefits	<ul style="list-style-type: none"> • Reduction in impact of changes on services and SLAs • Increased availability of Services • Increased productivity of users • Improved quality and cost effectiveness of services • Reduced number of failed, partially-implemented, and backed-out changes • Changes are controlled in each environment • Reduction in the number of Emergency Changes • Improved productivity of IT personnel by means of reducing Emergency and Urgent Changes • Changes made outside the Change Management process eventually falls to zero • Change-related Incidents and Problems are decreased • Increased capability of the organization to absorb higher levels of change without adverse impact <ul style="list-style-type: none"> ○ Helps organizational response to changing business requirements ○ Aids in responding to new legislation and regulation ○ Enables the organization to respond quickly to customer/business requirements • Ensures improved communication of changes to business stakeholders, customers and users • Enables higher change success through improved risk assessment • Information captured in reports assists management decision-making



CHANGE MANAGEMENT PROCESS ROLES AND RESPONSIBILITIES

Roles	Responsibilities
Service Desk Administrator	Dispatch service calls for which Change Management is required, to the appropriate specialists group.
Problem Manager	Dispatch problems for which a permanent solution has been proposed, to the appropriate specialist group.
Change Requestor	<ul style="list-style-type: none"> • Initiate the change. • Follow processes for submitting a Request for Change (RFC), including reference to any applicable Incident or Problem records. • Provide change details to the Change Manager for updating the RFC. • Member of the Emergency Change Advisory Board (ECAB) for their submitted Emergency Changes.
Change Coordinator	<ul style="list-style-type: none"> • Receive RFC's and ensure that they are properly recorded in the change log. • Ensure proper linkage of applicable incident and problem records to change records. • Validates all RFC's. • Communicates with the respective teams for the purpose of validating and conducting RFC impact analyses and risk assessments on changes. • Assists the Change Manager as needed in the preparation of the CAB meeting agendas • Assists the Change Manager in the notification to Change Requestor and other affected parties upon rejection or implementation. • Assists in the monitoring the progress of changes. • Assists in the monitoring the completion of all RFCs to ensure that the implementation procedures used follow the change schedule. • Working with the Change Manager, review change statistics and KPIs for trends. • Review and evaluate the change process.
Change Manager	<ul style="list-style-type: none"> • Receive RFC's and ensure that they are properly recorded in the change log. • Ensure proper linkage of applicable incident and problem records to change records.

CHANGE MANAGEMENT PROCESS ROLES AND RESPONSIBILITIES

Roles	Responsibilities
	<ul style="list-style-type: none"> • Assess, filter, and classify all RFCs. • Assign people or teams to conduct RFC impact analyses and risk assessments on major changes. In many cases, this is the Change Owner. • Prepare CAB meeting agendas and provide all necessary review information to the CAB members prior to board meetings. • Select and invite Change Advisory Board (CAB) members and Chair CAB meetings. • Analyze, prioritize, classify, and schedule RFCs. • Provide change notification to Change Requestor and other affected parties upon rejection or implementation. • Monitor the progress of changes. • Monitor the completion of all RFCs to ensure that the implementation procedures used follow the change schedule. • Ensure the verification of change implementations with the Change Owner. • Schedule, and chair Post Implementation Reviews (PIR). • Review change statistics and KPIs for trends. • Review and evaluate the change process.
Change Owner	<ul style="list-style-type: none"> • Receive approved changes from the Change Manager. • Follow the change schedule that the Change Manager approves. • Coordinate the change development (as delegated). • Provide project status feedback to the Change Manager and CAB for major, complex Changes that require development. • Identify problems as they arise. • Work with the Change Requestor, if a different person, to ensure that the change meets the Change Requestor requirements. • Report status and present findings to the CAB on major Changes. • Prepare for, and assist in PIR.

CHANGE MANAGEMENT RACI MATRIX

Process Name	Change Management								
								Primary Roles in Process	
								Secondary Roles	
	R - Responsible A - Accountable C - Consult I - Inform			Person responsible for getting the work done Only one person can be accountable for each activity The people who may be consulted and whose opinions are sought The people who are kept up-to-date on progress					
Process Activities	Change Manager	Change Requestor	Change Coordinator	CAB	Change Owner	Dept/Group Leader	Release Manager	Problem Manager	Service Desk Administrator
Recording and Acceptance									
12.1.1 Identify need for a change and submit a Request for Change		R, A							
12.1.2 Evaluate / decide whether submission fits an Emergency Change definition		R, A				C, I			
12.1.3 Review RFC for completeness and adequacy of date	A		R			C, I			
12.1.4 Evaluate / decide whether RFC needs to go back to requestor for more information or clarification	A	C	R						
12.1.5 Notify Change Requestor of additional information required, update the tool, ensure additional information is provided as requested	R	A							
12.1.6 Return RFC to the submitter	R	A	I						
Classification/Categorization/Prioritization									
12.2.1 Validate/Assign Classification of the change based on information provided on the RFC.	A	C	R						
12.2.2 Validate or determine if the RFC is a Standard Change or not	A	C	R						
12.2.3 Validate and assess as needed the impact and risk of the RFC	A	I	R						
12.2.4 Validate and adjust as needed the priority of the RFC	A	I	R						

Process Name		Change Management							
								Primary Roles in Process	
								Secondary Roles	
		R - Responsible A - Accountable C - Consult I - Inform			Person responsible for getting the work done Only one person can be accountable for each activity The people who may be consulted and whose opinions are sought The people who are kept up-to-date on progress				
Process Activities	Change Manager	Change Requestor	Change Coordinator	CAB	Change Owner	Dept/Group Leader	Release Manager	Problem Manager	Service Desk Administrator
Approval									
12.5.1 Determine if RFC requires CAB approval	A, R		R						
12.5.2 Schedule RFC for CAB review, prepare CAB agenda accordingly	A, R		R						
12.5.3 Conduct the CAB	A, R	C	R	C	C	C	C	C	C
12.5.4 Decide whether to reject or approve the RFC	A, R	I	R	I	I	I	I	I	I
12.5.5 Decide whether to continue with the RFC or not	A, R	C, I	R	I	I	I	I	I	I
Evaluation									
12.6.1 Monitor the RFC in production	I	I, R	I		A, R		R		
12.6.2 Schedule the Post Implementation Review	A, R	I	R	I	R		R	R	
12.6.3 Conduct the Post Implementation Review	A, R	I	R	R	R		R	R	C, I
12.6.4 Determine if RFC met its objectives	A, R	I	R	C	C		C	C, I	C, I
12.6.5 Determine if Backout is required	A, R	I	R	C	R, C, I		R	C	I

CHANGE MANAGEMENT PROCESS MEASUREMENTS

Note: *The listed measurements are intended as a guide. As Fermilab Computing Division matures in their Change Management process, the reports will require adjustment to match their maturity. This might involve customizing the measurements to reflect the process as it relates to Fermilab's organizational requirements. Computing Division is free to develop reports or measurements specific to the organization that match the needs of Fermilab.*

Short Term (0-3 Months – Learning the Process)

- Increased percentage of RFCs correctly filled out
 - Required data
 - Implementation plan
 - Back-out plan
- Decreasing time spent during CAB meetings (initially, due to the increase in agenda items this time may increase, and then decrease as the process is optimized)
- Reduction in the number of unauthorized changes
- Reduction in the number and percent of Emergency changes

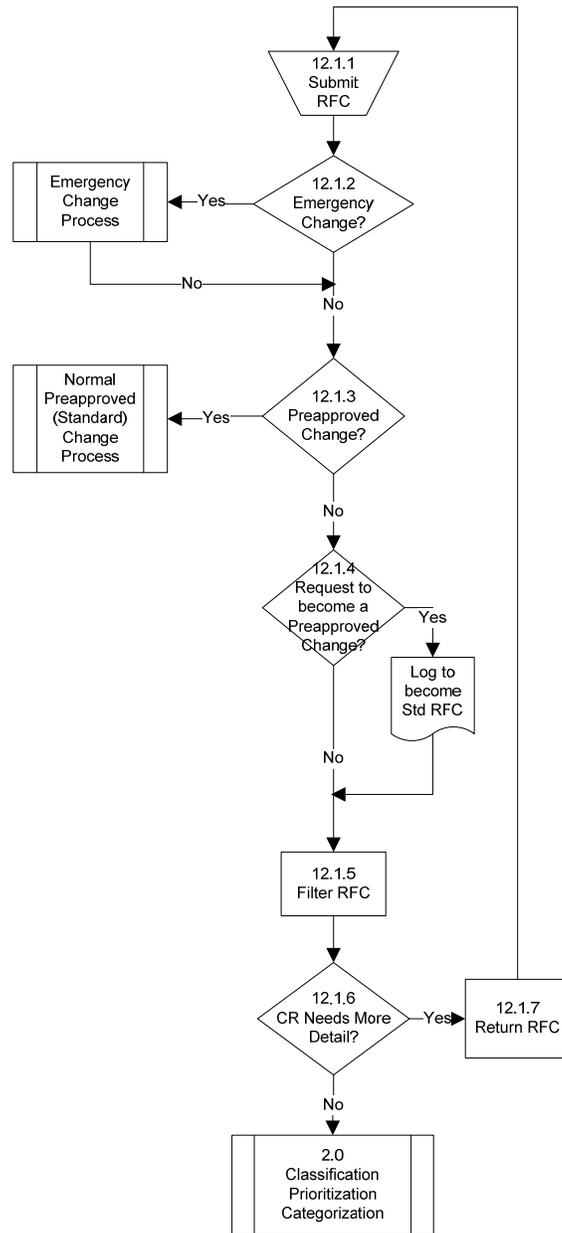
Medium Term (4-9 Months – Process is maturing)

- Number and percentage of changes approved at initial review
- Number and percentage of changes approved at formal approval stage
- Number and percentage of changes approved at scheduling stage
- Number and percentage of changes reclassified
- Number and percentage of changes by success outcome type

Long Term 9+ Months

- An increase in 100% successful changes calculated by a decreasing number of Post Implementation Review (PIR) Lessons Learned
- Average deviation between planned and actual implementation date/time
- Average Time between Release and PIR
- Reduction in the number of:
 - Disruptions to services
 - Failed changes
 - Incidents linked to change activity
 - Defects
 - Re-work
 - Backlog of change requests
 - Partially-implemented changes
 - Emergency changes
 - Unauthorized changes
 - Backed-out changes

12.1 CHANGE MANAGEMENT RECORDING AND ACCEPTANCE PROCEDURE



12.1 Change Management Recording and Acceptance Business Procedure Rules

Inputs	<ul style="list-style-type: none"> • Request For Change (RFC) • User Information • Knowledge Base
Entry Criteria	<ul style="list-style-type: none"> • Need for Change to infrastructure, software, or documentation. • The requirement is passed to this process by the input of a Request For Change
General Comments	Change Manager will hand-off Change to the Classification Procedure

12.1 Change Management Recording and Acceptance Procedure Narrative

Step	Responsible Role	Action
12.1.1	Change Requestor	<p>Identify the need for a change and an authorized person submits a Request For Change (RFC) to the Change Manager.</p> <p>Submit the following proposed items:</p> <ul style="list-style-type: none"> • Configuration Items affected by change • Associated Problem Records • Associated Incident Records • Well formed Business Benefit statement • Categorization • Classification • Proposed Risk of the Change • Time (Normal, Normal Preapproved, Emergency) <p>This includes the link to the requisite configuration data.</p> <p>Note: A like-for-like replacement performed as part of Incident Management will be documented on the Incident ticket, and will not require the submission of a separate Request For Change. The Incident Ticket will suffice as the authority to replace a like-for-like Configured Item.</p>

12.1 Change Management Recording and Acceptance Procedure Narrative

Step	Responsible Role	Action
12.1.2	Change Requestor	<p>If labeled as an Emergency, does the RFC conform to the requirements of an emergency change as defined in the Change Policy?</p> <ul style="list-style-type: none"> • If Yes, then send to the Emergency Change Management Procedure • If No, Then go to 12.1.3 for Normal Pre-approved (Standard) Change
12.1.3	Change Requestor	<ul style="list-style-type: none"> • If this is a Normal Pre-approved (Standard) Change, then in the tool: Set the Change Timing to Normal with the reason "Pre-approved" <ul style="list-style-type: none"> ○ Reference the respective Template from within the tool the particular Normal Preapproved (Standard) change in question. ○ Until Release Management is implemented, the Normal Pre-approved (Standard) change is returned to the implementing organization to follow their current release process. • If it is not a pre-approved standard change, leave the timing field as "Normal" then go to step 12.1.4. <p><i>Future Use:</i> All change implementations are under the umbrella of Release Management. Release Management will govern the specific Normal Preapproved (Standard) Change process for the respective teams.</p>

12.1 Change Management Recording and Acceptance Procedure Narrative

Step	Responsible Role	Action
12.1.4	Change Coordinator	<p>Is this a request for a particular Change to become "Preapproved"?</p> <ul style="list-style-type: none"> • If yes, then log in the RFC Work log, that this is a change requesting to become Preapproved and document that once this change is complete, a decision will need to be made whether to allow for approval or not. After logging the RFC, then move on to 12.1.5 • If No, then move straight to 12.1.5
12.1.5	Change Coordinator	<p>Review the RFC for completeness and adequacy of data supplied. While most of the required fields will be filled in, they need to be reviewed for accuracy and compliance. Check the items listed in 12.1.1</p>
12.1.6	Change Coordinator	<ul style="list-style-type: none"> • If the RFC has insufficient information, go to step 12.1.7 • If the RFC has sufficient information, go to <i>12.2.0 Classification Procedure</i>.
12.1.7	Change Coordinator	<ul style="list-style-type: none"> • Notify the Change Requestor of the deficiency in the RFC. • Update the RFC. • Monitor RFC and work with the Change Requestor if necessary to ensure adequate information is provided.

Outputs	<ul style="list-style-type: none"> • Request For Change accepted • Change Requestor notified
Exit Criteria	The RFC has been documented and accepted by Change Management

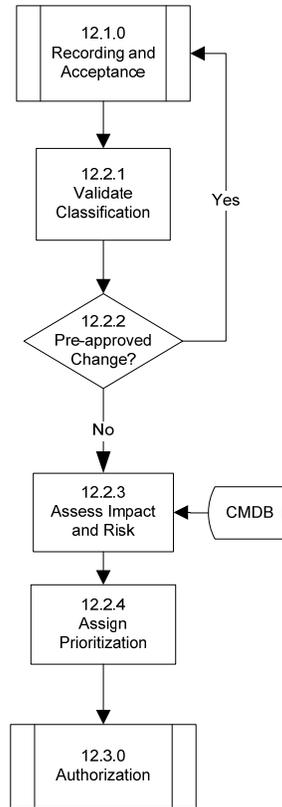
12.1 Change Management Recording & Acceptance Risks

Risk	Impact
The request happens outside of the Change Management process	The RFC is initiated outside of the Change Management process thereby circumventing the process and potentially leading to unauthorized change activity

12.1 Change Management Recording and Acceptance Records and Outputs

Document	Review Period	Technique
RFC	Once, during this procedure	Change Coordinator Review

12.2 CHANGE MANAGEMENT CATEGORIZATION, CLASSIFICATION, AND PRIORITIZATION PROCEDURE



12.2 Change Management Categorization, Classification, and Prioritization Procedure Rules

Inputs	<ul style="list-style-type: none"> Request For Change Classification Criteria Priority Criteria
Entry Criteria	Request For Changes which have been reviewed in the Reporting and Acceptance Procedure
General Comments	Change Manager will hand-off Change to the Authorization Procedure upon completion of this process.

12.2 Change Management Categorization, Classification, and Prioritization Narrative

Step	Responsible Role	Action
12.2.1	Change Coordinator	Validate Categorization and Timing of the change based on information provided on the RFC.
12.2.2	Change Coordinator/Change Manager	Normal Pre-approved (Standard) Change <ul style="list-style-type: none"> If the Request For Change (RFC) is determined to be a Normal Preapproved (Standard) Change, the Change Coordinator or Change Manager rejects the change and sends it back to the submitter to resubmit as a normal change Go to step 12.1.1 and resubmit RFC Normal or non-Preapproved Change <ul style="list-style-type: none"> Move to 12.2.3

12.2 Change Management Categorization, Classification, and Prioritization Narrative

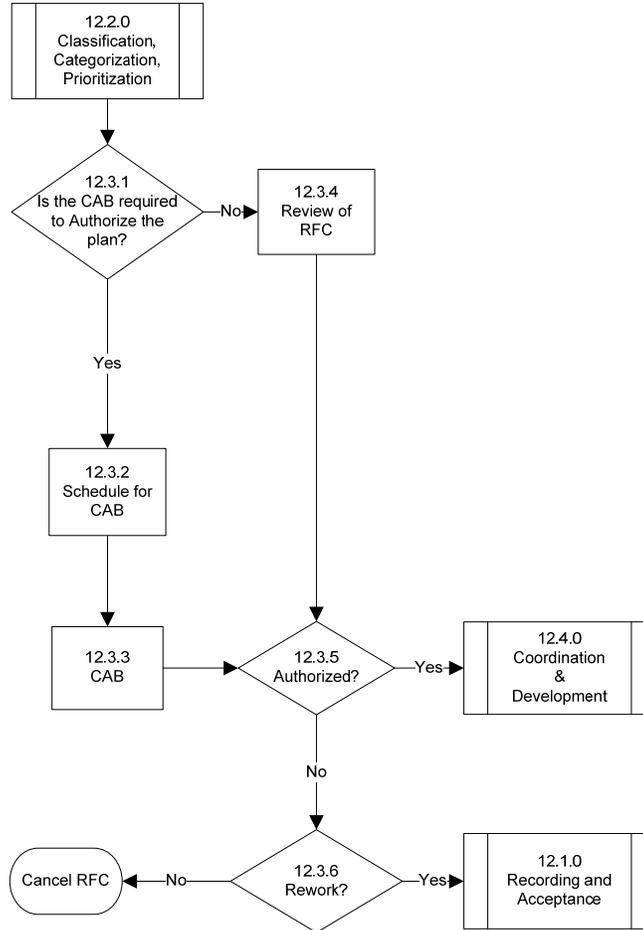
Step	Responsible Role	Action
12.2.3	Change Manager/Coordinator	<ul style="list-style-type: none"> • Assesses the proposed impact and risk and urgency • Reviews relevant data from the CMDB based on the specific Change Requestor teams maturity level • Updates the RFC with the appropriate impact and risk assessments
12.2.4	Change Manager/Coordinator	<ul style="list-style-type: none"> • Validates the Priority of the RFC and adjusts as necessary • Change is docked for CAB Review • The Change will then proceed to the 12.3.0 Change Management Authorization Procedure.

Outputs	<ul style="list-style-type: none"> • Major / Minor Changes ready for Authorization • Normal Preapproved (Standard) Changes sent back to Recording and Acceptance for resubmission as a Normal Change
Exit Criteria	Classified, Categorized, and Prioritized RFC

12.2 Change Management Categorization, Classification, and Prioritization Risks

Risk	Impact
Changes improperly identified as Standard.	RFC's would have redundant effort.
Changes improperly classified.	RFC's would not have appropriate reporting history.
Changes improperly prioritized.	RFC's will go through the process at the wrong priority, possibly hampering another higher priority change.

12.3 CHANGE MANAGEMENT AUTHORIZATION PROCEDURE



12.3 Change Management Authorization Procedure Rules

Inputs	<ul style="list-style-type: none"> • Agenda • Request For Change • Change Advisory Board (CAB) • Approval / Rejection Criteria
Entry Criteria	A complete, and classified change request initiates and/or justifies the start of this procedure
General Comments	Change Manager will hand-off Change to : <ul style="list-style-type: none"> • The Coordination Development procedure • The Evaluation Procedure

12.3 Change Management Authorization Procedure Narrative

Step	Responsible Role	Action
12.3.1	Change Manager	Determine if the change requires CAB review or not <ul style="list-style-type: none"> • If the Request for Change requires CAB review then step 12.3.2 • If it does not require CAB review, then go to step 12.3.4
12.3.2	Change Manager	Review the Request For Change, and communicate with the Change Requestor if necessary, to gauge the complexity of the change. Ascertain whether the change is of a high enough complexity to require authorization before testing and build. Then place on the docket for discussion at the next available CAB meeting
12.3.3	Change Manager/CAB	<p>The Change Manager will chair the CAB, and issues surrounding each change will be discussed. In this step the primary decision, is whether to commit the funding and resources to build and test this change. Minutes of the meeting will be taken and published. Authorization is by the Change Manager with the advice of the CAB.</p> <p>Membership of the CAB is dynamic and is typically comprised of the Change Manager, Service Desk, Incident, Problem, and Service Level and Service</p>

12.3 Change Management Authorization Procedure Narrative

Step	Responsible Role	Action
		<p>Managers, as well as various departments that have a vested interest in upcoming Changes to the environment.</p> <p>CAB Format:</p> <ul style="list-style-type: none"> • The first part of the CAB will be the Post Implementation Review for all Changes that were put into production after the previous CAB and prior to the current CAB. • The second part of the CAB will deal with new Request for Changes and Projects that need approval to be built, and tested. This is not an approval to deploy, but rather an approval to invest time and funds in development. • The third part of the CAB will handle Changes that are ready to schedule for implementation.
12.3.4	Change Manager	<ul style="list-style-type: none"> • Review the RFC to determine whether to authorize or not. • Gather additional information from the Change Requestor if necessary to determine impact of the RFC • Move to 12.3.5
12.3.5	Change Manager	<p>If no CAB advisement was sought:</p> <ul style="list-style-type: none"> • If authorized go to 12.4.0 Coordination & Development Procedure. • If not authorized, go to 12.3.7 <p>If CAB advisement was sought:</p> <ul style="list-style-type: none"> • The Change Manager will take the input of the CAB under advisement and then will either authorize or not authorize a RFC into the production environment. • If authorized, then the Change will move to 12.4.0 Coordination and Development. • If unauthorized, the Change will move to 12.3.6
12.3.6	Change Manager	<p>Determine if the change will be canceled or if more information is required before a change can be approved.</p>

12.3 Change Management Authorization Procedure Narrative

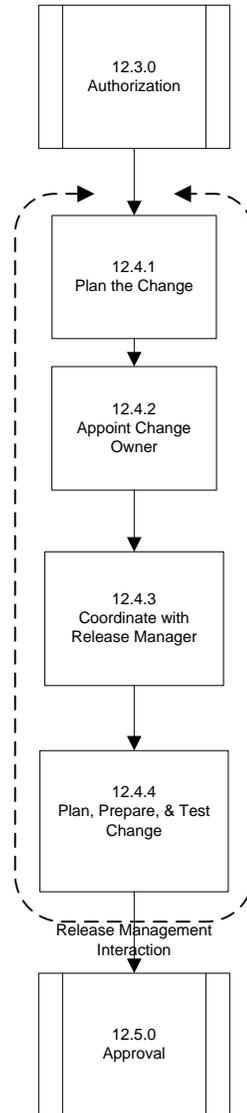
Step	Responsible Role	Action
		<ul style="list-style-type: none"> • If canceled, then move to Cancel RFC and inform the requestor that the Change is canceled. • If rework is required to make the RFC acceptable, then move to 12.1.4 Recording and Acceptance so the requestor can provide further details.

Outputs	Authorized Change to Release Management
Exit Criteria	Authorized Change

12.3 change Management Categorization and Prioritization Risks

Risk	Impact
Unauthorized Change	Unauthorized Change moves into development resulting in unauthorized or wasted effort

12.4 CHANGE MANAGEMENT COORDINATION AND DEVELOPMENT PROCEDURE



12.4 Change Management Coordination and Development Procedure Rules

Inputs	<ul style="list-style-type: none"> • Development Plan • Development environment • Test Plan • Test environment • Acceptance Criteria
Entry Criteria	A Request for Change that has been authorized for development
General Comments	Change Manager will hand-off Change to : <ul style="list-style-type: none"> • Release Management • Authorization Procedure

12.4 Change Management Coordination and Development Narrative

Step	Responsible Role	Action
12.4.1	Change Manager/Change Requestor	Schedule the development of the authorized change based on business priority.
12.4.2	Change Manager/Change Coordinator	Appoint Change Owner according to the requirements of the change related to priority and classification. Often the change requestor is the change owner.
12.4.3	Change Manager/Change Coordinator	<p>Inform Change Requestor of authorized change. Coordinate Change Owner activities with the Change Requestor (Future use: Release Manager). This coordination is dedicated to:</p> <ul style="list-style-type: none"> • Planning • Building • Testing • Identification of maintenance windows <p>Future Use All change implementations are under the umbrella of Release Management; however, generally only major changes are tracked in detail by the Release Manager.</p>

12.4 Change Management Coordination and Development Narrative

12.4.4	Change Requestor	<ul style="list-style-type: none"> • The Change Requestor will schedule a change test, and ensure the results are available for the CAB to review. The Change Requestor will oversee the testing, and the documentation package required by the CAB. The documentation package may include: <ul style="list-style-type: none"> - Implementation Plan - Test Plan - Risk Plan - Resource Plan - Back-out Plan - Communications Plan - Financial Impact Assessment if required by Change Management, Financial Management, or Lab Management <p>The Change Requestor will keep the Change Manager informed as to the progress of the tests as required.</p> <p>Note: The Change Manager may waive this requirement except for the back-out plan, or in the case of a major change, the Communications plan.</p> <p>Note: The above plans may be generic, pre-written plans that are referenced in the case of the majority of changes. For highly complex changes, the rigor required by developing these plans needs to be exercised.</p> <ul style="list-style-type: none"> • Go to <i>12.5.0 Authorization Procedure</i>.
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Outputs	<ul style="list-style-type: none"> • Updated Request for Change
Exit Criteria	<ul style="list-style-type: none"> • Updated Request for Change to be scheduled for CAB Approval

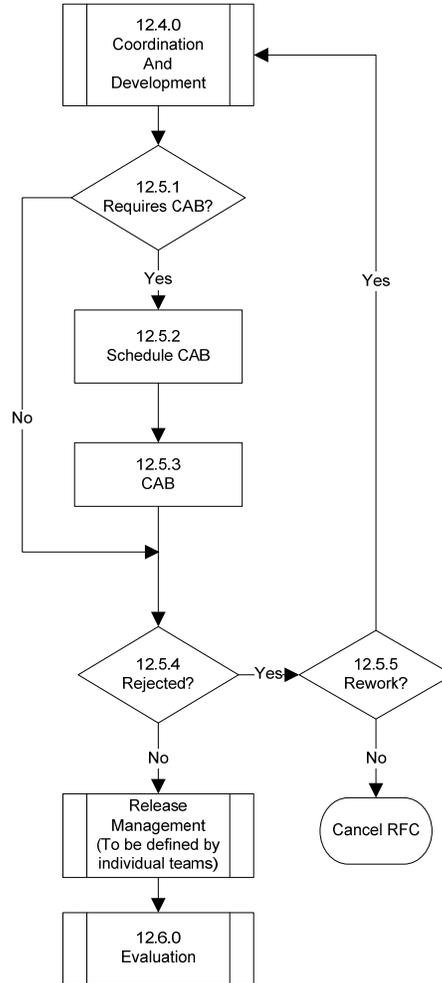
12.4 Change Management Coordination and Development Risks

Risk	Impact
Incomplete Implementation or Test Plan	Changes will be partially implemented
Incomplete Implementation or Test Plan	Changes will be backed-out
Incomplete Implementation or Test Plan	Changes will not be implemented

12.4 Change Management Coordination and Development Risks

Risk	Impact
Incomplete Implementation or Test or Back-out Plan	Changes will cause a Service interruption
Incomplete Test Plan	Changes will introduce a Problem into the Production environment

12.5 CHANGE MANAGEMENT APPROVAL PROCEDURE



12.5 Change Management Approval Procedure Rules

Inputs	<ul style="list-style-type: none"> • Agenda • Built and Tested product • Request For Change • Test Report • Implementation Plan • Resource Plan • Back-out Plan • Risk Plan
Entry Criteria	Change that requires authorization for implementation (not an emergency nor a Normal Preapproved (Standard) change)
General Comments	Change Manager will hand-off Change to : <ul style="list-style-type: none"> • Release Management • Evaluation Procedure

12.5 Change Management Approval Procedure Narrative

Step	Responsible Role	Action
12.5.1	Change Manager	<ul style="list-style-type: none"> • If a CAB is required, go to step 12.5.2. • If a CAB is not required, go to step 12.5.4. Note: if the RFC required authorization to proceed, then it will most likely require CAB approval prior to scheduling and implementing. However, the Change Manager reserves the right to require any RFC to appear before the CAB at any stage of the process
12.5.2	Change Manager	Add the change to the regularly scheduled CAB meeting. Note: Prepare an agenda for each CAB.

12.5 Change Management Approval Procedure Narrative

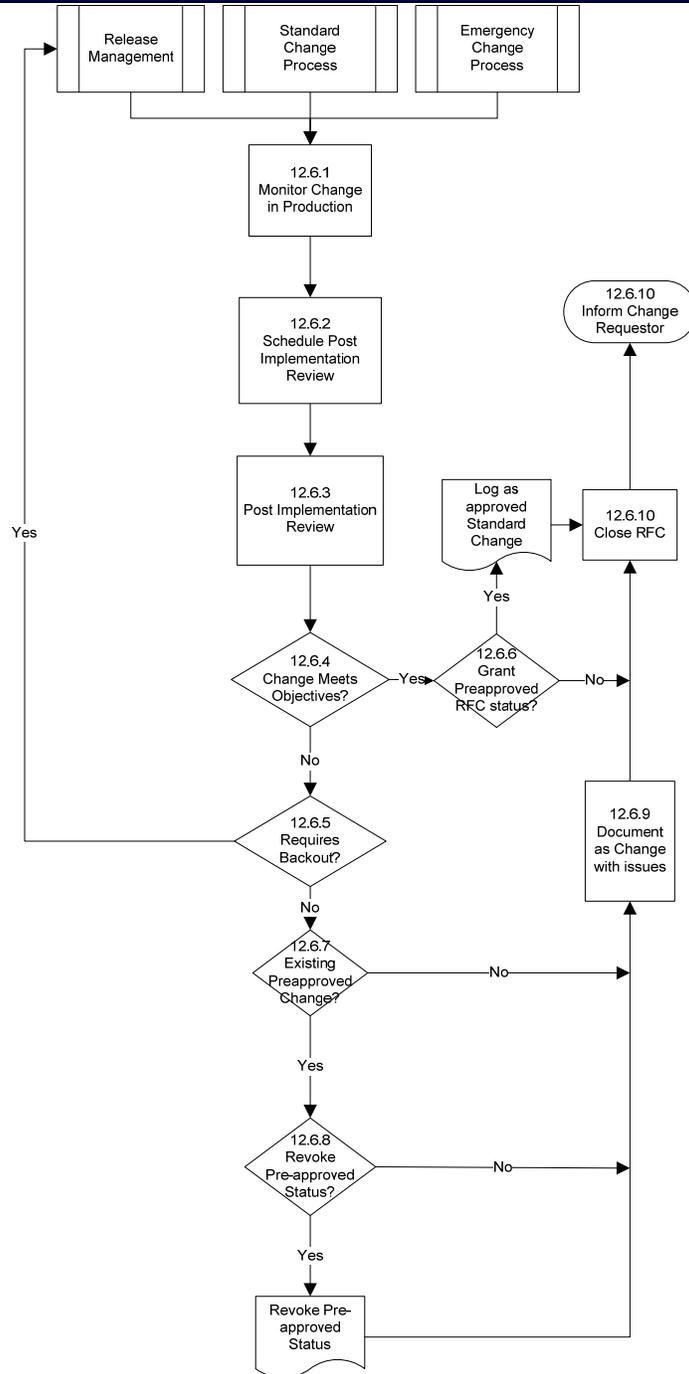
Step	Responsible Role	Action
12.5.3	CAB	<p>The Change Manager will chair the CAB, and issues surrounding each change will be discussed. In this step the primary decision, is whether to proceed with the implementation of the RFC or not.</p> <p>The Change Manager may consider some of the following, however, this list is by no means conclusive:</p> <ul style="list-style-type: none"> • Did the RFC successfully pass the proposed test plans? • Have all relevant parties been engaged for the proposed implementation? • Has the Service Desk been provided a means of supporting the proposed rollout? <p>Minutes of the meeting will be taken and published. Approval to implement the RFC by the Change Manager with the advice of the CAB.</p>
12.5.4	Change Manager	<ul style="list-style-type: none"> • If the Change is rejected, go to step 12.5.5. • If the Change is approved, go to Release Management. Release Management will then move the change to 12.6 Change Management Evaluation
12.5.5	Change Manager	<ul style="list-style-type: none"> • If the Change requires more data or the CAB or Change Manager finds defects in the plan(s), preventing an informed decision, return to 12.4.0 Change Coordination and Development for further work. • If the decision is made to abandon the Change, then cancel the Request For Change and inform the Change Requestor

Outputs	<ul style="list-style-type: none"> • Approved Change to Release Management • Cancelled Change for cancellation review
Exit Criteria	<ul style="list-style-type: none"> • Approved Change to Release Management • Cancelled Change

12.5 Change Management Approval Risks

Risk	Impact
RFCs conflicting with one another	Unsuccessful Change
Releases conflicting with one another	Unsuccessful Release

12.6 CHANGE MANAGEMENT EVALUATION PROCEDURE



12.6 Change Management Evaluation Procedure Rules

Inputs	<ul style="list-style-type: none"> • Agenda • Request For Change • Change Advisory Board (CAB) • Evaluation Criteria
Entry Criteria	Implemented Change
General Comments	This procedure completes and closes the change.

12.6 Change Management Evaluation Procedure Narrative

Step	Responsible Role	Action
12.6.1	Change Requestor	<ul style="list-style-type: none"> • Monitor performance of change after implementation. • Document outcome for Post Implementation Review (PIR).
12.6.2	Change Manager	Schedule Post Implementation Review with all parties involved in the Request For Change. Typically, this will occur in conjunction with the regularly scheduled CAB. However, the Change Manager reserves the right to convene a PIR at any time for a failed RFC.
12.6.3	Change Manager, Change Owner, CAB Members, Release Manager	<p>Review and answer the Evaluation Criteria. Including:</p> <ul style="list-style-type: none"> • Normal Changes • Emergency Changes • Normal – Pre-approved (Standard) Changes <p>Note: <i>Output to the Problem Management process if necessary for failed changes</i></p>
12.6.4	Change Manager	<ul style="list-style-type: none"> • If the Change meets all its objectives then step 12.6.6 • If change did not meet required outcome then 12.6.5

12.6 Change Management Evaluation Procedure Narrative

Step	Responsible Role	Action
12.6.5	Change Manager/Change Requestor	<p>If Back-out required:</p> <ul style="list-style-type: none"> • Notify Change Requestor to activate Back-out Plan. • Document outcome. <p>Note: Backout plan is engaged with Release Management. Until Release Management is fully implemented, each team will follow their respective team's back-out process.</p> <p>If Back-out is not required:</p> <ul style="list-style-type: none"> • Move to 12.6.7
12.6.6	Change Manager	<p>Was this a RFC that was requesting to become a Normal Pre-approved (Standard) Change?</p> <p>Consider the following prior to granting Normal Pre-approved (Standard) status:</p> <ul style="list-style-type: none"> • Is the Change Manager comfortable with the type of RFC? • Does the RFC provide evidence of repeatability? • If yes, then grant the Pre-approved status and document as such and move to 12.6.10 • If no, then move directly to 12.6.10
12.6.7	Change Manager	<p>Was RFC a Normal Pre-approved (Standard) Change?</p> <ul style="list-style-type: none"> • If no, then move to 12.6.9 • If yes, then move to 12.6.8

12.6 Change Management Evaluation Procedure Narrative

Step	Responsible Role	Action
12.6.8	Change Manager	Revoke the Normal Pre-approved (Standard) Change status? <ul style="list-style-type: none"> • If no, then move to 12.6.9 • If yes, then document that the Pre-approved status for this type of RFC is no longer valid • Inform the Change Requestor that Pre-approved changes of this type are no longer accepted • If Pre-approved status is to be regained, the change will have to go through the Pre-approval process again.
12.6.9	Change Manager/Change Requestor/Problem Manager	If Change was unsuccessful and the decision is to leave RFC in production: <ul style="list-style-type: none"> • Document as a Change with issues and highlight the issues for further review • Problem Manager may open a problem ticket to determine root cause of why change was unsuccessful If Change did not meet required outcome as it introduced a need for further change: <ul style="list-style-type: none"> • Notify Change Requestor. • Invoke Recording & Acceptance procedure 12.1.1 for any newly required RFCs. • Identify relationship/association between current (closed) RFC and newly required RFCs. • Document outcome for future benefit. • Then move to step 12.6.10

12.6 Change Management Evaluation Procedure Narrative

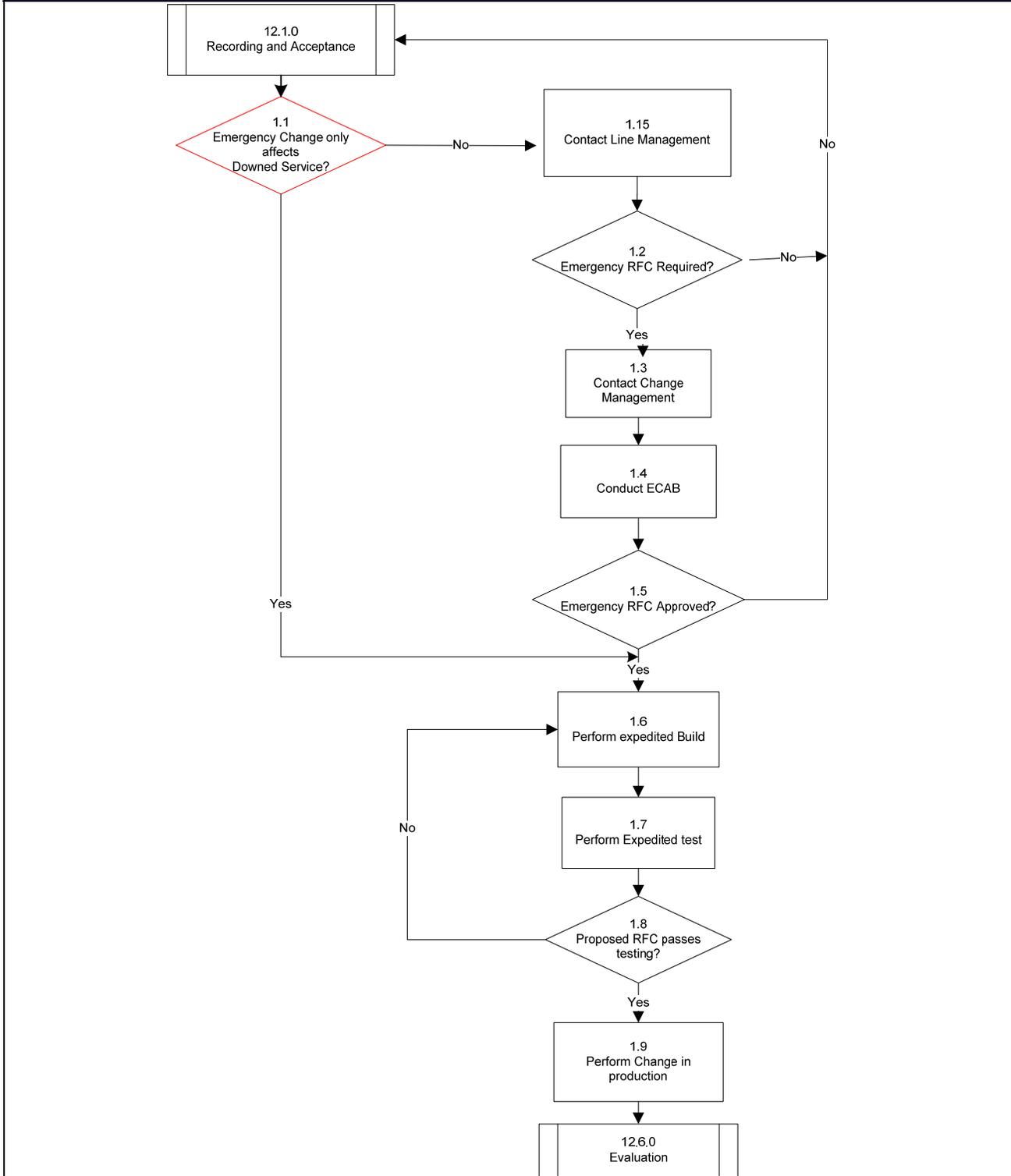
Step	Responsible Role	Action
12.6.10	Change Manager/Change Coordinator	Close the RFC with the appropriate time stamp and work log updates.

Outputs	<ul style="list-style-type: none"> • Meeting Minutes • Closed Request For Changes • New Request For Changes • Closed Problem Record • Closed Incident Record(s) • Management Information (reports)
Exit Criteria	Request for Changes ready to close

12.6 Change Management Evaluation Risks

Risk	Impact
Full impact of Change not known at time of PIR	Additional impacts not known at the time of the PIR may be discovered later
Lessons Learned not learned	Same mistakes made again leading to unnecessary costs
Closing a Change Record that is not completely updated	Reduced ability for organizational learning Impaired reporting

EMERGENCY CHANGE MANAGEMENT PROCEDURE



Emergency Change Management Procedure Rules

Inputs	<ul style="list-style-type: none"> • Change that is required to prevent a loss of service. • Change that is required to restore a loss of service. • Change that, due to the loss or potential loss of service, cannot wait for the normal change cycle to occur.
Entry Criteria	<ul style="list-style-type: none"> • Change ticket that is filled out in Remedy • Page from a loss of service (usually to a 24x7 service) • Incident ticket that is filled out in Remedy.
General Comments	Emergency Change Process to quickly restore Service or to prevent a loss of Service to the customer
Note	Release participates in the Emergency Change approval process in the same fashion that Release participates in the approval process of a normal change.

Emergency Change Management Procedure Narrative

Step	Responsible Role	Action
1.1	Change Requestor	Is there a reasonable belief the work will have no appreciable impact outside the scope of the service restoration plan? <ul style="list-style-type: none"> • If yes, then go to ECMP 1.6 - Perform Expedited Build. • If no, then go to ECMP 1.15 - Contact Line Management.
1.15	Change Requestor	Contact your line manager to validate that this change must occur as an emergency and cannot wait until the next scheduled Change Window
1.2	Change Requestor/Line Manager	Determine if this is truly an emergency change (e.g. cannot wait until the next scheduled Change Window) <ul style="list-style-type: none"> • If yes, then go to ECMP 1.3 • If no, then return to 12.1.0 Recording and Acceptance

Emergency Change Management Procedure Narrative

Step	Responsible Role	Action
1.3	Change Requestor/Line Manager	Contact Change Management
1.4	Change Manager/Change Coordinator	<p>Determine validity of Emergency Change</p> <ul style="list-style-type: none"> • Conduct Emergency Change Advisory Board (ECAB) <p>The ECAB typically consists of the Change Manager, the Release Manager, the line manager or operations manager, the Change Requestor, the Critical Incident Manager, and anyone else that Change Management wants to be a part of the decision process prior to implementing the change.</p>
1.5	Change Manager/Change Coordinator	<ul style="list-style-type: none"> • If the Emergency Change is approved, the go to 1.6 • If Emergency change is denied, then return to 12.1.0 Recording and Acceptance
1.6	Change Requestor	Expedite the build of the change as required to resolve the emergency.
1.7	Change Requestor	Perform an expedited test
1.8	Change Requestor	<p>Review the test results</p> <p>The tests and their expected results already are a part of the test plan.</p> <ul style="list-style-type: none"> • If Change passes the test, then proceed to 1.9 • If the Change fails the test, then return to 1.6

Emergency Change Management Procedure Narrative

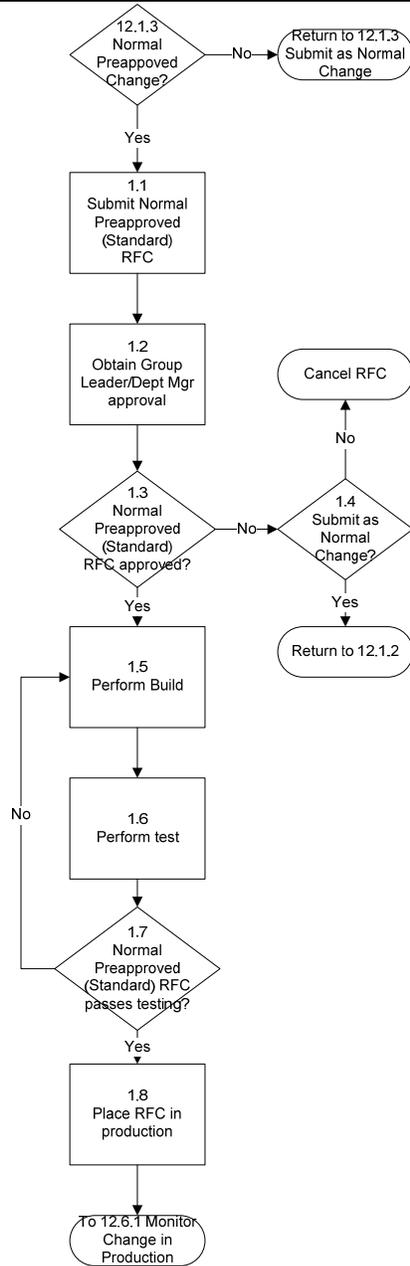
Step	Responsible Role	Action
1.9	Change Requestor	Place change into the production environment. Update the Emergency Change in the Remedy Change Management System (or add a Latent Change to Remedy if the change had not been previously added due to the Emergency). <ul style="list-style-type: none"> • Once complete, move to 12.6 Change Management Evaluation

Outputs	Completed Emergency Change ready for PIR
Exit Criteria	Request for Changes ready to close

Emergency Change Management Risks

Risk	Impact
Change is performed as an emergency when it should have gone through the normal change process	Not enough testing is performed, could generate errors in the production environment.
Change is not performed as an emergency when it should have.	Potential loss of service while waiting on a change that should have gone into production sooner.

NORMAL PRE-APPROVED (STANDARD) CHANGE MANAGEMENT PROCEDURE



Normal Pre-approved (Standard) Change Management Procedure Rules

Inputs	Change that has already been approved by Change Management and classified as a Normal Preapproved (Standard) Change
Entry Criteria	Request for Change that has been successfully filled out and has already been granted the Normal Preapproved status by Change Management.
General Comments	Normal Preapproved (Standard) Change process for conducting changes that are repeatable in their implementation methodology.

Normal Pre-approved (Standard) Change Management Procedure Narrative

Step	Responsible Role	Action
12.1.3	Change Requestor	<ul style="list-style-type: none"> • If this is a Normal Pre-approved (Standard) Change, then in the tool: Set the Change Timing to Normal with the reason "Pre-approved" <ul style="list-style-type: none"> ○ Reference the respective Template from within the tool the particular Normal Preapproved (Standard) change in question. ○ Until Release Management is implemented, the Normal Pre-approved (Standard) change is returned to the implementing organization to follow their current release process following the high-level steps outlined in this section. • If it is not a pre-approved standard change, leave the timing field as "Normal" then go to step 12.1.4. <p><i>Future Use:</i> All change implementations are under the umbrella of Release Management. Release Management will govern the specific Normal Preapproved (Standard) Change process for the respective teams.</p>
1.1	Change Requestor/Dept/Group Leader	Using the template provided, create and submit the Normal Preapproved (Standard) Change

Normal Pre-approved (Standard) Change Management Procedure Narrative

Step	Responsible Role	Action
1.2	Change Requestor/Dept/Group Leader	Contact your Group Leader or Department Manager to discuss the RFC.
1.3	Group Leader/Department Manager	Determine validity of Normal Preapproved (Standard) Change <ul style="list-style-type: none"> • If RFC approved then move to 1.5 • If RFC is rejected then move to 1.4
1.4	Change Requestor/Dept/Group Leader	Decide whether to resubmit as a Normal RFC? <ul style="list-style-type: none"> • If yes, then return to 12.1.3 to resubmit • If no, then cancel the RFC.
1.5	Change Requestor	Perform the build for the RFC
1.6	Change Requestor	Perform the test of the RFC
1.7	Change Requestor	Review the test results The tests and their expected results already are a part of the test plan. <ul style="list-style-type: none"> • If Change passes the test, then proceed to 1.8 • If the Change fails the test, then return to 1.6
1.8	Change Requestor	Place change into the production environment <ul style="list-style-type: none"> • Once complete, move to 12.6 Change Management Evaluation

Outputs	Closed Request For Changes
Exit Criteria	Request for Changes ready for the PIR

Normal Preapproved (Standard) Change Management Risks

Risk	Impact
Change is performed as a Preapproved (Standard) Change when it should have gone through the normal change process	Not enough testing is performed, could generate errors in the production environment.
Change is not performed as a Preapproved (Standard) when it should have.	Unnecessary work for the respective team members and Change Management. Possible loss of Pre-approved Status for the Change.

CHANGE MANAGEMENT CRITICAL SUCCESS FACTORS

- Establish and maintain stakeholder buy-in by demonstrating that benefits derived from establishing the process outweigh the costs
- Manage stakeholder perspectives
- Integration with existing and future IT and Organizational processes
 - ITSM processes
 - Organizational processes such as Project Management and Procurement
- Create a service culture with training, knowledge transfer, skills assessment and feedback
- Define clear roles and responsibilities
- Assign accountability
- Understand risks to changes created by dependencies between legacy systems, new technologies and the human element
- Understand there are risks created by unknown dependencies
- Recognize the advantages of automating processes to create efficiencies; reduce cycle time and minimize errors
- Ensure knowledge is easily accessible and usable
- Create, maintain and update knowledge as applicable
- Create a culture whereby new and existing knowledge is shared
- Develop and maintain quality systems, tools, processes and procedures
- Monitor customer satisfaction during service transition and improvement efforts

SUPPORTING DOCUMENTS

Document Name	Description	Relationship
Fermilab Change Management Policy	Policy – DocDB # 3529	Policy
Fermilab Change Management Process and Procedures	Process – DocDB #3530	This document