Configuration Control Work Permit

Changes made in this revision:

- Corrected typographical error in section 1
- Updated figure on page 4
- Updated paragraph 3 in section 2.2
- Inserted section 2.3

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Configuration Control Work Permit

1 Introduction

All hardware required for radiation protection of personnel at the APS is under the administrative control of the APS. Prior to beginning work on any Radiation Shielding System (RSS) device a Work Request and a Configuration Control Work Permit (CCWP) must be generated and approved. The CCWP describes the scope of work, acquires documented authorization by the required personnel based upon the risk level of the RSS work (Per the policy on "Design, Installation, and Maintenance of Radiation Safety Systems," APS_1189715) and certifies the affected systems have been placed in a known safe state by the APS Floor Coordinator or Main Control Room (MCR) Operator before the RSS work is to begin. The CCWP must be posted if the work is to take place on the experimental floor or be available in the MCR for RSS work on the accelerator. Upon completion of the work, the required personnel attest to the stated execution of the work and sign off.

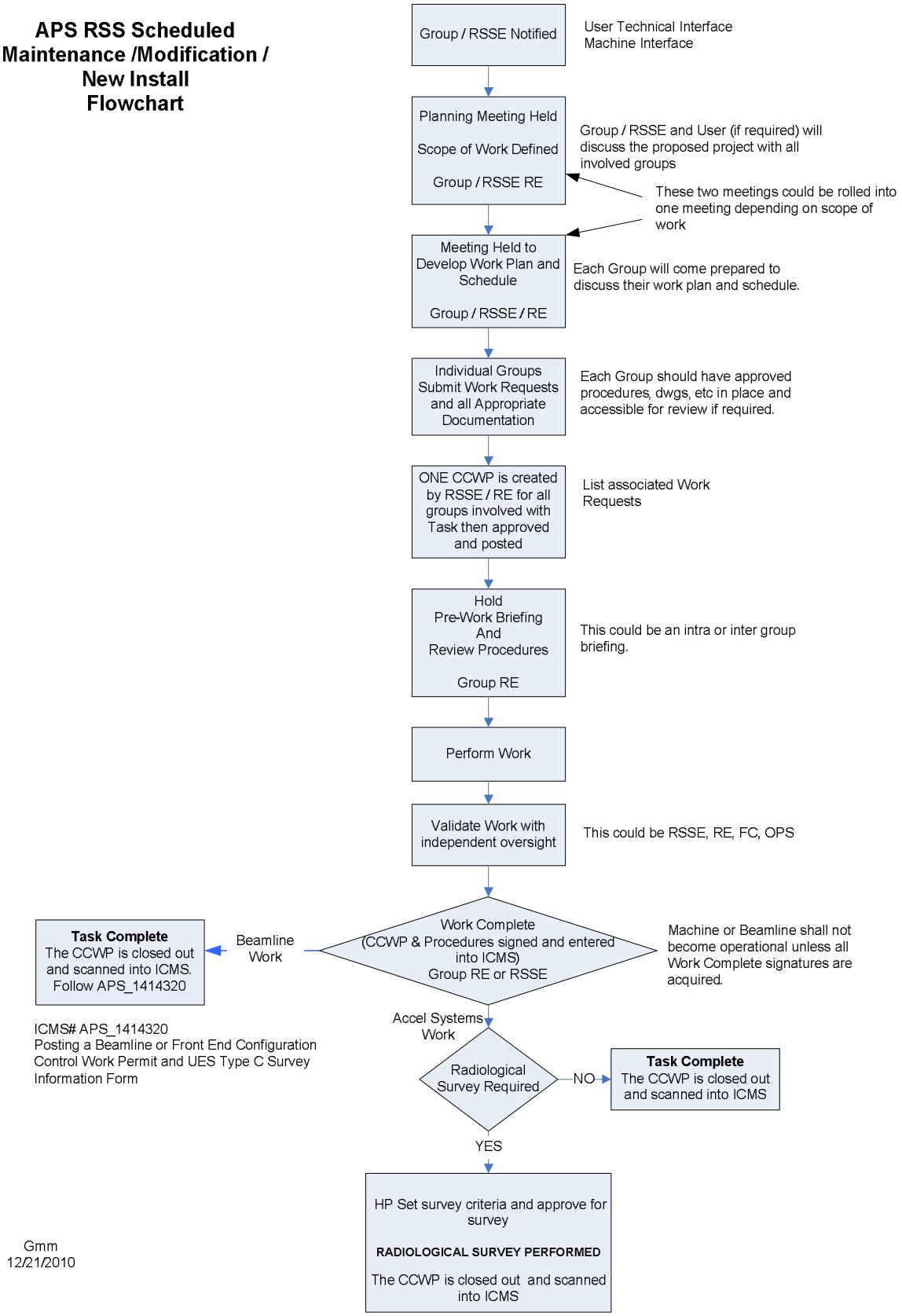
The Integrated Content Management System (ICMS) can be utilized to create, track and approve the CCWP but it ***shall*** be used as the final repository for all completed CCWP's.

2 Procedure

2.1 Work Flow

This procedure describes the work flow and processing of a CCWP for the commissioning, maintenance, diagnoses, repair, or any other modification to any part of an accelerator, beamline or front end RSS at the APS.

APS RSS Scheduled Maintenance /Modification / New Install Flowchart



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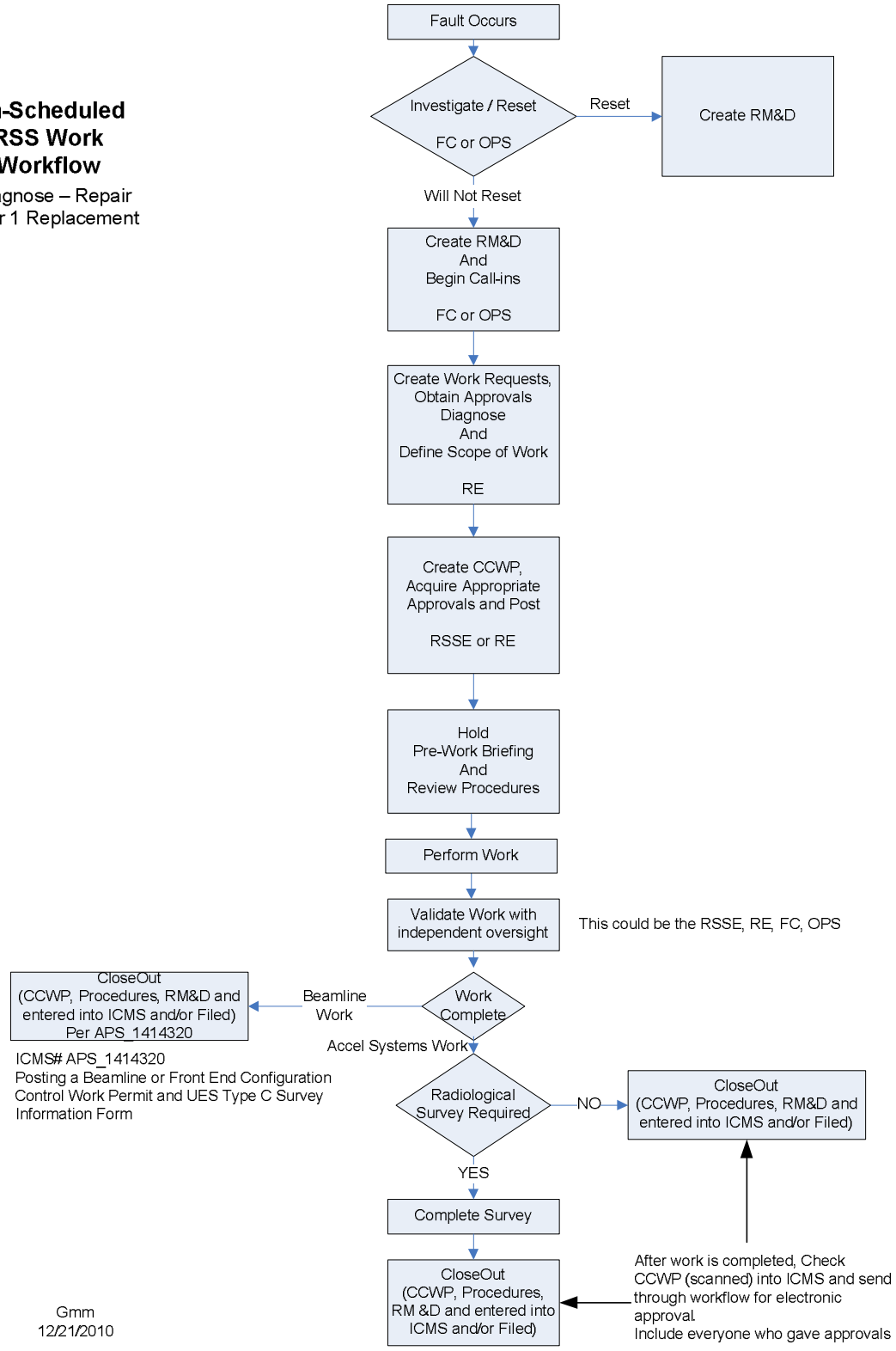
12/21/2010

Un-Scheduled RSS Work Workflow

Diagnose – Repair
1 for 1 Replacement



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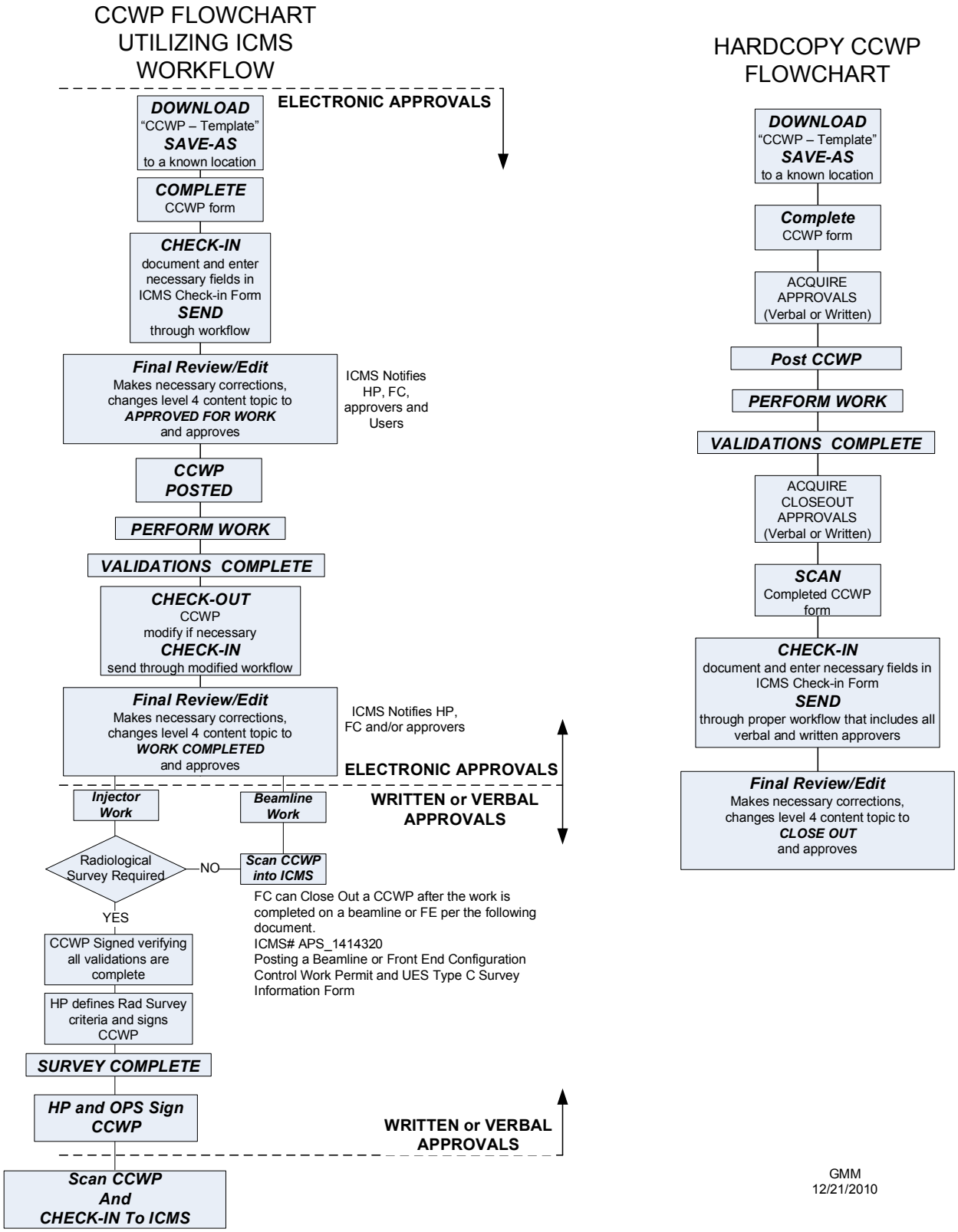

2.2 The CCWP Process

Before a CCWP is created, the submitter verifies that the information needed to safely perform and complete the RSS work is available. The CCWP ***can*** be generated via the Integrated Content Management System (ICMS). The CCWP creation process is started by downloading the native CCWP Template WORD document from ICMS APS_1192911. The submitter will now complete the CCWP form by providing the required information describing the RSS work (location, device/system, type of RSS device, risk level, related Work Requests, and scope of work), and approval workflow of those involved with the work. The RSS work covered by this permit is limited to the defined work scope, and any changes made to the work scope will require either a modified or new CCWP which will then require approval of the modifications made to the scope of work.

If diagnostic work is required to define the scope of RSS work, then a troubleshooting plan must be followed. Each APS group will be responsible for defining their own policy/guidelines for diagnosing/troubleshooting RSS components. This troubleshooting plan shall not include activities that have the potential to compromise the protection provided by the RSS. Troubleshooting/diagnosing is NOT considered "work" and does not require "approvals", only authorization. Based upon the findings of the diagnostic work, the Work Description section of the CCWP can then be completed to identify the scope of work for the repair of the RSS component/system. Before work begins on the RSS component, verify the appropriate systems have been secured, inhibiting beam propagation into the work area and the CCWP posted. The work is then performed, the system(s) validated and all work completion approvals obtained. The Floor Coordinator (for beamline and front ends) or MCR Operator (for accelerator systems) can then authorize the RSS to return to service after verifying all CCWP specified validations are completed, signed off, and the required personnel certify that their portion of the system is ready to safely return to service. Systems may be temporarily brought on-line for system validations (e.g., interlock testing, radiation surveys). NOTE: Per the following procedure; "Posting a Beamline or Front End Configuration Control Work Permit and UES Type C Survey Information Form" (APS_1414320) a FC can close out a CCWP after the work is completed on a beamline or FE.

In the event that unscheduled RSS work occurs or the availability of the approvers is limited, a hard copy of the CCWP can be created and approved by signature and/or verbally. When the work has been completed, all validations and closeout signatures will be recorded on the CCWP. Soon after closeout of the CCWP, the hard copy of the CCWP will be scanned, and entered into ICMS. Those whom gave verbal approvals will be required to electronically sign off on the scanned version of the CCWP. Once all electronic signatures have been received, the RSSE/RE will close out the CCWP. If verbal approval was given and the approver will not give electronic approval, the matter would be referred to management.

2.3 RSS Work Performed By Beamline Personnel

Occasionally, beamline personnel request that they perform work on an RSS device either for convenience or because they possess special knowledge of the device. The policy on "Design, Installation, and Maintenance of Radiation Safety Systems," APS_1189715) allows for this circumstance. The steps listed below shall be followed to safely enable this to occur:

1. Beamline Personnel notify the Floor Coordinator (FC) of the issue with the RSS device and request to perform the work themselves.
2. Floor Coordinator notifies beamline personnel not to begin any work until a CCWP is posted.
3. FC requests beamline personnel provide, in writing:
   a. the scope of the work to be performed and
   b. a procedure/checklist of the work.
4. Floor Coordinator sends the request along with the SOW and procedure/checklist to the RSSE.
5. RSSE contacts the AES ADD-MIS and requests a memo authorizing the beamline personnel to perform the work specified in the documents provided in 3. above.
6. RSSE creates a CCWP based on the documents provided in 3. above and includes the ICMS # of the approved authorization memo from 5. above.
7. FC posts the approved CCWP and notifies the beamline personnel that work can begin.
8. Beamline personnel perform the work under the oversight of the RSSE. Should the scope of work change at any point in the process, the work should stop, the SOW and procedure/checklist modified, then re-approved by the AES ADD-MIS.
9. Validate work
10. Closeout CCWP
11. Archive all documentation in ICMS

2.4 The CCWP Form (see page 11 of this document)

Step 1 – Work Description: This provides a general description of the work information to be completed by the submitter (RSSE, responsible engineer, or the Group Leader). The type of task will need to be identified in order to help identify the risk level associated with the work. The risk level is determined by the current RSS work policy. To identify the exact RSS device/system that will be worked on, the submitter will need to list the component type as well as the specific RSS device as identified by the RSS label identification (if applicable).

Step 2 – Job Description/Work Approval: The submitter of the CCWP will enter a detailed job description, work plan, approved drawings and any safety/hazard issues in the area noted. Each group involved in the work will have either the Group Leader (GL), GL designate or Responsible Engineer (depending on the risk level defined in the current

RSS policy) approve the CCWP before the work can begin. If an alternate approval workflow is being utilized, mark the check box.

Step 3 – Authorization to Start: The RSSE, responsible engineer, Group Leader or GL designate will approve this portion of the CCWP. Upon this approval, it is understood that all drawings, procedures, work plans, and an approved validation checklist/procedure are in place as well as verifying a pre-work briefing was held. The FC/MCR will (determine) the station(s)/system(s) that will be required to be enabled/disabled and also (determine) if a beamline will be taken globally off-line before the work is to begin. If approving electronically, this will be accomplished by making a note in the comments box after approving the CCWP. After all approvals are in place (electronic approvals) the FC/MCR will print the CCWP and the approval workflow from ICMS, and post it in its required location. If the CCWP is going through the system electronically, E-mails will be sent to all approvers, HP and other appropriate personnel to inform them the CCWP has been "APPROVED FOR WORK"

Step 4 – Validations: When the work has been completed and each group has executed their device/system validations, the CCWP will again be routed for approval. The GL or RE will sign off attesting that their device/system has been satisfactorily validated and ready to be returned to service. If the CCWP is going through the system electronically, E-mails will be sent to all approvers, HP and appropriate personnel to inform them the CCWP has advanced to the "WORK COMPLETE" status.

Step 5 – Validations Complete: Upon obtaining all validation signatures, the RSSE / RE and the FC/MCR sign the CCWP attesting to the tasks completeness. If no survey is required, the job is complete. Forward the CCWP to the appropriate person to be scanned into ICMS. The appropriate metadata required to enter the CCWP into ICMS can be found on page 12. NOTE: Per the following procedure; "Posting a Beamline or Front End Configuration Control Work Permit and UES Type C Survey Information Form" (APS_1414320) a FC can Close Out a CCWP after the work is completed on a beamline or FE.

Step 6 – Close Out / Radiological Surveys: This step is only for work performed on the accelerator systems. At this point, the CCWP is routed to OPS and Health Physics to allow them to determine the need for a radiological survey. If so, HP will define the criteria for the radiological survey, provide the information to OPS who will then sign and post the CCWP. Upon completion of the survey, the MCR/CCSM and HP will sign-off that the survey(s) were performed satisfactorily, and the system/component is ready to return to service. The completed CCWP will then be returned to the RE/RSSE who will then scan it and check it into ICMS.

3 Documents/Records Created by this Procedure

The documents/records listed below will be created in the execution of this procedure and must be retained as indicated.

Description of Document/Record (include ID number, if applicable)	Custodian	Storage Location and Medium	Retention Requirement
Configuration Control Work Permit (CCWP)	APS User Safety Officer	ICMS, electronic	5 years

4 Feedback and Improvement

If you are using this procedure and have comments or suggested improvements for it, please go to the APS Policies and Procedures Comment Form* to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure (APS_1408152).

* http://centraldocs.aps.anl.gov/comment_form.php

CCWP - Configuration Control Work Permit / ICMS # APS_1192911 Revision:11

Step 1 – Work Description

Requestor: _____ Date: _____ Phone: _____ Organization: Division: _____ Group: _____ UserID: _____

Proposed Start Date: _____ Required Completion Date: _____ Location of Work: _____

Task: ☐ Repair/Testing ☐ Maintenance/1-for-1 ☐ New/Modified Installation ☐ Labyrinth/Mini-Hutch **Risk Level:** ☐ Low ☐ Medium ☐ High

Component Type: ☐ Shutter/ACIS Stop ☐ Radiation Shielding ☐ PSS/ACIS ☐ **RSS Other:** _____ RSS Label: _____

Machine: ☐ LINAC ☐ PAR ☐ Booster ☐ Zone F ☐ Storage Ring ☐ LEUTL ☐ Front Ends ☐ Experimental Floor

WORK REQUEST #: _____ _____ _____ _____ _____

Step 2 – JOB TITLE: _____

Job Description: (work plan, approved drawings, procedure/checklist references, etc.)

PROCEDURE/CHECKLIST #:

DIVISION APPROVAL TO PROCEED ICMS #:

Work Approvals:

☐ Alternate approval workflow per *Policy on Design, Installation and Maintenance of Radiation Safety Systems* (APS_1189715)

	Approval Signature	Date		Approval Signature	Date
Safety Interlocks:			Mechanical/Water:		
Vacuum:			Survey/Alignment:		
RF/PS/Diag/CTL:			MED:		
Health Physics:			ADD:		
MCR/CCSM:			Other:		

Step 3 – Authorization to Start. Information (drawings, specs, procedures, approval/validation checklist requirements, review committee recommendations etc.) are adequate to safely complete work, requested work is consistent with an approved design, and a pre-work briefing has been held.

(RSSE, Responsible Engineer) : _____ Date : _____

Stations Enabled: _____ Stations Disabled: _____ Global: ☐ On-line ☐ Off-line

MCR/Floor Coordinator: _____ Date : _____

Step 4 – Validations: Responsible Engineer indicates work has been completed, validated, all safety concerns have been resolved, and all appropriate records have been updated.

	Approval Signature	Date		Approval Signature	Date
Safety Interlocks:			Mechanical/Water:		
Vacuum:			Survey/Alignment:		
RF/PS/Diag/CTL:			MED:		
Health Physics:			ADD:		
MCR/CCSM:			Other _____		

Step 5 – Validations complete: All work and validations completed.

Other : _____ Date: _____

Floor Coordinator / MCR : _____ Date: _____

RSSE / Responsible Engineer : _____ Date: _____

Step 6 – Close Out. Type C Radiation Survey Required: ☐ Yes ☐ No Survey Completed (HP) : _____ Date: _____

Device/system ready to return to service, on-line status restored: MCR/CCSM: _____ Date: _____

Comments:

RETURN THE COMPLETED CCWP TO THE APPROPRIATE PERSON TO BE SCANNED INTO ICMS

ICMS CHECK-IN Screen