

## LACBWR Site Restoration Project Work Control Procedure

### Isolation and Control For Final Status Survey

Procedure No. LC-FS-PR-010

Revision No. 2

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Date: 10/17/2017

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Date: 10/17/2017

Regulatory Affairs assigned program & regulatory reviews (\*new only\*): Initials/Date \_\_\_N/A\_\_\_

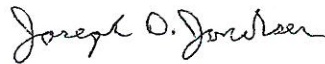
#### Regulatory Required Reviews (attach completed LC-RA-PR-001 and QTR forms, as applicable)

Part 50 License: 10 CFR 50.59 and 50.90	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Fire Protection: 10 CFR 50.48(f)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Conditions of License: PSP: 10 CFR 50.54(p)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Conditions of License: E-Plan: 10 CFR 50.54(q)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Termination of License: 10 CFR 50.82(a)(6) and 50.82(a)(7)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Part 72 License: 10 CFR 72.48	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

#### Program Required Reviews

RP: ☒ YES ☐ NO

SIGNATURE



DATE: 10/18/2017

QA: ☐ YES ☒ NO

SIGNATURE

DATE: \_\_\_\_\_

QTR: ☐ YES ☒ NO

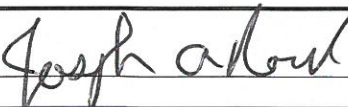
SIGNATURE

DATE: \_\_\_\_\_

#### Approval Section

PROJECT MANAGER:

SIGNATURE



DATE: 10/18/2017

Effective Date: 10/19/17 (assigned by Document Control or Project Manager)

**TABLE OF CONTENT**

<b>1. PURPoSE AND SCOPE .....</b>	<b>4</b>
1.1. Purpose.....	4
1.2. Scope.....	4
<b>2. REFERENCES.....</b>	<b>4</b>
2.1. LC-FS-PR-002, “Final Status Survey Package Development” .....	4
2.2. LC-QA-PN-001, “Quality Assurance Project Plan (QAPP) for Characterization and Final Status Survey” .....	4
2.3. LC-FS-PR-003, “Radiological Assessments (RA) and Remedial Action Support Surveys (RASS)” .....	4
2.4. LC-FS-PR-008, “Final Status Survey Data Assessment” .....	4
<b>3. GENERAL.....</b>	<b>4</b>
3.1. Responsibilities .....	4
3.2. Definitions.....	6
3.3. Acronyms .....	6
3.4. Precautions, Limitations, and Prerequisites .....	7
3.5. Records .....	8
<b>4. PROCEDURE .....</b>	<b>8</b>
4.1. Initiate Area Turnover and Walkdown .....	8
4.2. Area Turnover Survey and Posting for I&C .....	11
4.3. Access Control .....	13
4.4. Post FSS Routine & Special Surveillances .....	15
<b>5. ATTACHMENTS .....</b>	<b>17</b>
5.1. Attachment 1, Area Turnover and Control Checklist .....	17
5.2. Attachment 2, FSS Area Access Request, Authorization and Sign-In Sheet .....	17
5.3. Attachment 3, FSS Area Posting Example .....	17
5.4. Attachment 4, FSS I&C Surveillance Summary.....	17
5.5. Attachment 5, FSS I&C Surveillance Matrix .....	17

Summary of Changes Revision 1:

- 1.) Minor formatting changes that did not affect the technical content of this procedure.
- 2.) Request for additional information related to the License Termination Plan for the Zion Nuclear Power Station, Areas 1 and 2. (TAC Numbers L53045 and L53046)
- 3.) Specified surveillance interval and personnel requirements for entry into the Class 2 and Class 3 Stand Alone Facilities, which are completed with the FSS process.

Summary of Changes Revision 2:

- 1.) Specify additional turnover and control requirements if controls are compromised in response to condition report ES-LCR-CR-2017-0073.

## **1. PURPOSE AND SCOPE**

### **1.1. Purpose**

This procedure describes the turnover, isolation and control process for survey areas prior to performing Final Status Survey (FSS) at LCSR. It also provides the administrative process to evaluate, approve, and document decommissioning or maintenance related activities in survey areas during and following FSS activities.

### **1.2. Scope**

Planned decommissioning actions must be completed and assessed for isolation and control measures before FSS activities can begin in a designated survey area. This procedure describes the protocols used to verify and document that a survey area is in suitable physical condition for FSS implementation, and proper isolation and control measures are in place to limit the potential for cross-contamination from other decommissioning activities, and to maintain the final configuration of the survey area.

This procedure applies to all personnel performing turnover and control activities in support of FSS.

## **2. REFERENCES**

- 2.1.** LC-FS-PR-002, "Final Status Survey Package Development"
- 2.2.** LC-QA-PN-001, "Quality Assurance Project Plan (QAPP) for Characterization and Final Status Survey"
- 2.3.** LC-FS-PR-003, "Radiological Assessments (RA) and Remedial Action Support Surveys (RASS)"
- 2.4.** LC-FS-PR-008, "Final Status Survey Data Assessment"

## **3. GENERAL**

### **3.1. Responsibilities**

3.1.1 RP/ FSS Manager – is responsible for:

- 1.) Providing technical oversight and administration of this procedure.
- 2.) Assessing and approving any decommissioning or maintenance related activities in survey areas during and following FSS activities.

3.1.2 D&D Manager (or designee) – is responsible for:

- 1.) Ensuring decommissioning or remediation activities in the survey area are completed.
- 2.) Ensuring housekeeping is performed, any tools or equipment not required to support FSS activities are removed, and any additional measures necessary to limit the spread of contamination from adjacent areas are implemented.

3.1.3 FSS Supervisor – is responsible for:

- 1.) Determining the frequency and type of surveillances that will be performed in survey areas following the performance of FSS and prior to license termination.
- 2.) Maintaining cognizance of areas nearing decommissioning completion.
- 3.) Ensuring decommissioning or remediation activities in survey areas deemed ready for FSS are complete and initiating the turnover process.
- 4.) Assuring site safety concerns, issues and hazards are thoroughly addresses in the execution of this procedure.
- 5.) Verifying that survey areas to be surveyed for FSS are isolated, posted and controlled.
- 6.) Reviewing RA/RASS performed in support of survey area turnover.
- 7.) Ensuring access control measures are maintained for survey areas where FSS activities are active or have been completed.
- 8.) Notifying the RP/FSS Manager any time the physical configuration and/or radiological conditions change in a survey area where FSS activities are active or have been completed.
- 9.) Maintaining a log of personnel entering posted survey areas under FSS isolation and control.

3.1.4 Graphics/GPS Specialist – is responsible for:

- 1.) Preparation of drawings and other graphics (as necessary) to be included with any RA/RASS performed for survey area turnover.
- 2.) Generation of surveillance drawings as directed by the FSS Supervisor

3.1.5 FSS Technicians – are responsible for:

- 1.) Establishing isolation and control prior to and during FSS activities.

3.1.6 All Project Personnel – are responsible for:

- 1.) Reading and complying with FSS postings.

### 3.2. Definitions

- 3.2.1 **Access Control** - Application of programs and/or policies to ensure that survey areas are not cross-contaminated by personnel (or decommissioning activities) which may require access to survey areas under FSS isolation and control.
- 3.2.2 **Final Status Survey (FSS)** – Measurements and sampling to describe the radiological conditions of a site, following completion of decontamination activities (if any) in preparation for release.
- 3.2.3 **Isolation and Control (I&C)** – The physical and the administrative means and methods by which a survey area is identified, bounded, posted and communicated to project personnel after turnover is completed.
- 3.2.4 **Surveillance** – Activities (which can include field inspections, self-assessments, radiological surveys, documentation reviews and survey area inspections) to verify that isolation and control (I&C) plus access control successfully protect the physical and radiological condition for survey areas where FSS has been performed.
- 3.2.5 **Turnover** - Acknowledgement of all cognizant project personnel that a system, structure, or open land survey area meets all the physical and radiological conditions necessary for the FSS Group to perform FSS.
- 3.2.6 **Walkdown** – The inspection of a survey area which assesses and confirms the readiness of that survey area for turnover.

### 3.3. Acronyms

<b><u>ALARA</u></b>	As Low As Reasonably Achievable
<b><u>DCGL</u></b>	Derived Concentration Guideline Level
<b><u>FSS</u></b>	Final Status Survey
<b><u>I&amp;C</u></b>	Isolation and Control
<b><u>LCSR</u></b>	LaCrosse Site Restoration Project
<b><u>QAPP</u></b>	Quality Assurance Project Plan

<b><u>RA</u></b>	Radiological Assessment
<b><u>RASS</u></b>	Remedial Action Support Survey
<b><u>RCA</u></b>	Radiologically Controlled Areas

### **3.4. Precautions, Limitations, and Prerequisites**

#### **3.4.1 Precautions**

- 1.) When a survey area is designated for turnover to support FSS, no radioactive material may be introduced, or decommissioning activities allowed in that survey area, without FSS Supervision assessment and RP/FSS Management approval.
- 2.) Postings and signs used to denote radiologically controlled areas shall not be used to denote FSS survey areas. An example of a posting used to denote a FSS survey area is provided in Attachment 3.
- 3.) The RP/FSS Manager must be notified if the physical configuration and/or radiological conditions in a survey area change where FSS activities are active or have been completed, regardless if the change was due to remediation or for other reasons.

#### **3.4.2 Limitations**

- 1.) Area I&C and access control shall be maintained for each survey area until there is no risk of cross-contamination from decommissioning activities or, the area is backfilled (such as a basement), or the survey area's I&C is superseded by consolidation into a larger group of survey areas (e.g., expanding posted barriers, etc.).
- 2.) All attachments described in this procedure may be generated electronically. If electronic attachments are used, the physical layout of the attachment may be modified provided the intent in this procedure is not changed.
- 3.) FSS I&C boundary controls and postings shall be removed from FSS survey areas just prior to backfill. The backfilled survey area has a very low risk of cross-contamination for future FSS evaluation.

### 3.4.3 Prerequisites

- 1.) Characterization, historical surveys or RA/RASS results should provide evidence that residual radioactivity is unlikely to exceed the unrestricted release criterion.
- 2.) Decommissioning activities having the potential to cross-contaminate the survey area must be completed prior to the initiation of this procedure.
- 3.) Tools and equipment not required to perform FSS must be removed from the survey area prior to turnover (exception to this prerequisite may be provided by the RP/FSS Manager in some situations (e.g., miscellaneous tools and equipment in a survey area that is shared with G-3 personnel who need access to the area and their tools and equipment).
- 4.) Housekeeping and cleanup of the survey area must be completed prior to the initiation of turnover activities.
- 5.) Posting materials used for posting of survey area(s) should be easily recognizable as pertaining to FSS. Examples of these materials are green and white protective coverings such as tarps, herculite, plastic, labels, ropes and signs.

## 3.5. Records

3.5.1 Attachment 1, Area Turnover and Control Checklist

3.5.2 Attachment 2, FSS Area Access Request, Authorization and Sign-In Sheet

3.5.3 Attachment 3, FSS Area Posting Example

3.5.4 Attachment 4, FSS I&C Surveillance Summary

3.5.5 Attachment 5, FSS I&C Surveillance Matrix

## 4. PROCEDURE

### 4.1. Initiate Area Turnover and Walkdown

#### NOTE

Upon completion of commodity removal, decontamination and/or demolition activities in a designated FSS “survey area,” the FSS Group shall be notified that the decommissioning activities in the survey area(s) are complete and the area is ready for FSS. This communication may occur formally, (e.g., by schedule, memorandum or through project controls) or informally (e.g., by verbal communication).



- 4.1.1 When a survey area is deemed ready for FSS, then the FSS Supervisor will initiate Attachment 1, “Area Turnover and Control Checklist” for the survey area and document the following information:
- Survey Area Number
  - FSS Classification
  - Description
  - Survey Area Type
  - Survey Area in m<sup>2</sup>
  - Initiation date
- 4.1.2 The FSS Supervisor will indicate in the appropriate space which member of the D&D group notified the supervisor that the survey area is ready for walkdown and turnover.
- 4.1.3 The FSS Supervisor will schedule and coordinate a walkdown of the survey area to include all cognizant personnel (e.g., FSS Supervision, D&D Manager [or designee], etc.) and denote the scheduled date, time and attendees for the walkdown on Attachment 1 in the appropriate space.

**NOTE**

Decommissioning and remediation activities are complete when all commodities and wastes have been removed from a survey area and/or survey area and all remaining materials have been decontaminated to levels less than the unrestricted release criteria or applicable action level.

- 4.1.4 During the walkdown the attendees will assess the readiness of the survey area for turnover, paying attention to the following items as delineated in Attachment 1 in the “Walkdown for Completion of Decommissioning and/or Remediation Activities” section:
- 1.) All decommissioning activities in the survey area are complete, including removal, as necessary, of items (e.g., sub-surface systems, electrical components, etc.) that could interfere with FSS.
  - 2.) All surfaces to be surveyed are prepared for FSS as necessary (e.g., interferences removed, paint removed, penetrations exposed, excavations backfilled, etc.).
  - 3.) Any and all additional measures necessary to limit the spread of contamination from adjacent areas undergoing decommissioning (e.g., plug vent louvers, cover floor grating, etc.) have been implemented.
  - 4.) All tools or equipment not needed for FSS are removed.
  - 5.) Housekeeping has occurred and is satisfactory for FSS.

- 6.) All support apparatus (e.g., ladders, scaffold, etc.) and equipment used for FSS activities does not pose the potential for introducing or spreading plant-related radioactivity in the survey area.
- 7.) All transit paths for the area are eliminated or rerouted where practical except to support FSS.
- 4.1.5 If unsatisfactory conditions are identified, then number and document those conditions in the “Items for Resolution” spaces of Attachment 1. Additional pages may be used as necessary in accordance with section 4.2.2.
  - 1.) As items for resolution are corrected, the FSS Supervisor will indicate acceptance of the resolution by checking off, dating and initialing the appropriate spaces in the “Items for Resolution” section of Attachment 1.
- 4.1.6 Indicate the presense of any “Observed or Potential Hazards” by checking the appropriate boxes on Attachment 1.
- 4.1.7 Document under “Hazards Mitigation Measures” any measures that have been taken or will be taken to mitigate the observed or potential hazards. Include the names of persons responsible for mitigating observed or potential hazards.
- 4.1.8 Indicate the presense of any “Conditions or Physical Constraints That May Affect Survey Performance” by checking the appropriate boxes on Attachment 1.
- 4.1.9 Document under “Resolution” any corrective actions for Steps 5.1.8 and include the names of persons responsible for those corrective actions.
- 4.1.10 Indicate necessary activities in the “Survey Area Preparation for Survey” by checking the appropriate boxes on Attachment 1.
- 4.1.11 Document under “Preparation Details” any necessary activities for Step 5.1.10 and include the names of persons responsible for those activities.
- 4.1.12 Upon satisfactory completion of all activities identified in Steps 5.1.4 through 5.1.11, the FSS Supervisor will obtain the D&D Manager (or designee) signature, and then the FSS Supervisor will countersign affirming the survey area is acceptable for performing FSS.
  - 1.) These signatures acknowledge turnover of the survey area from D&D to FSS and are entered on the appropriate spaces on Attachment 1.

- 4.1.13 The FSS Supervisor may direct and oversee the implementation of temporary work control postings, materials and/or barriers to maintain the physical and/or radiological integrity of the survey area during turnover surveys prior to formally establishing I&C.

#### **4.2. Area Turnover Survey and Posting for I&C**

- 4.2.1 FSS Supervisor will review characterization or RA/RASS sample data for the survey area to determine if satisfactory data is available to perform FSS design.

##### **NOTE**

During the walkdown, the FSS Supervisor should emphasize and document any indications that would potentially impact the classification of Class 2 or Class 3 Survey Areas.

##### **NOTE**

The FSS Supervisor may waive the performance of a turnover survey only if the results from previous surveys (e.g., Characterization, RA, RASS, etc.) indicate a low probability that the survey area contains residual contamination above the applicable action level or DCGL, and the survey area conforms to the variability criteria of LC-FS-PR-002, "Final Status Survey Package Development," and the survey area was not remediated prior to the performance of FSS.

- 4.2.2 The FSS Supervisor will indicate whether a turnover survey is required by checking the "Yes" or "No" box in the "Survey Area Turnover" section on Attachment 1.
- 1.) The FSS Supervisor shall design a turnover RA/RASS in accordance with procedure LC-FS-PR-003, "Radiological Assessments (RA) and Remedial Action Support Surveys (RASS)" (Reference 2.3)
    - A. The same type of instrumentation and instrument sensitivity that will be used for FSS should be used to assess a survey area for turnover.
    - B. If the existing radiological survey data is adequate and sufficient for FSS design, then any survey performed for turnover should consist of judgemental scans only.

- C. If the existing radiological survey data is inadequate or insufficient for FSS design, or if the variability in the existing data does not conform to the criteria of LC-FS-PR-003, “Radiological Assessments (RA) and Remedial Action Support Surveys (RASS),” or if the survey area was remediated prior to the performance of FSS, then the survey design from the RA/RASS will be sufficient to ensure that remediation in the survey area was sufficient to meet the unrestricted release criteria and adequate survey data variability is available to perform survey design for FSS.
- D. The FSS Supervisor will denote the RA/RASS sample plan number on Attachment 1.
- 4.2.3 The FSS Supervisor will sign the “Survey for Area Turnover” section of Attachment 1.
- 4.2.4 As directed, the FSS technician will perform a turnover survey for the survey area using the instruction provided in the RA/RASS sample plan.
- 4.2.5 After completion of the turnover survey, the FSS technician will sign the “Survey for Area Turnover” section of Attachment 1.
- 4.2.6 After review of the turnover survey data, the FSS Supervisor will sign the “Survey for Area Turnover” section of Attachment 1, attach the results of the turnover survey (including survey maps, field notes and data,) and notify of turnover survey completion.
- 4.2.7 The FSS Supervisor will review the turnover survey results.
- 1.) If the survey area is acceptable for FSS, then the FSS Supervisor will denote approval by completing and signing the “Comments and Observations” section of Attachment 1 and notify that the survey area can be posted for FSS I&C.
- A. If turnover survey data indicates the survey area will require reclassification, then the FSS Supervisor may accept the survey area for FSS with the RP/FSS Manager review and approval. All supporting documentation for this review and approval must be referenced in the “Comments and Observations” section of Attachment 1.

- 2.) If the survey area is not acceptable for FSS, then cease the turnover process and inform the D&D Manager (or designee) that the survey area requires additional remediation. Document the unacceptable conditions in the “Comments and Observations” section of Attachment 1 and secure Attachment 1 into the appropriate FSS folder. Initiate a new Attachment 1 after the survey area is remediated and this procedure is restarted for the survey area.

4.2.8 The FSS Supervisor will direct implementation of I&C for the survey area.

**NOTE**

FSS survey areas should have I&C barriers and postings placed at all entrances. Postings should be highly visible to notify personnel of access restrictions and requirements.

- 1.) Post FSS survey areas using signs such as those illustrated in Attachment 3
- 4.2.9 The FSS Supervisor will document the controls implemented for the survey area in the “Posting and Controls” section of Attachment 1.
- 4.2.10 The FSS Supervisor will sign the completed “Postings and Controls” section of Attachment 1 and file the completed Attachment 1 in the appropriate FSS folder.

#### **4.3. Access Control**

**NOTE**

Posting the survey area is the minimum physical requirements for I&C. Other controls include physical restrictions such as stanchions and barricades; use of personnel frisking stations, sticky pads, protective clothing to prevent the introduction of plant related radioactivity into the survey area; personnel training, briefing and site wide notices to disseminate information and provide instructions; or any combination of the above. These measures should be considered commensurate with the potential for introducing plant related radioactivity into the survey area.

- 4.3.1 Entry of personnel and/or equipment into survey areas under FSS I&C is allowed only under the restrictions of access control as delineated in this procedure.
- 1.) Access control may be implemented through the use of specific notification to specified persons or groups, for specified operations or inspections, on a case by case basis, as approved by the RP/FSS Manager, e.g:

- A. Dairyland Power personnel who require access to the switchyard for routine operations are not required to notify the FSS group of switchyard entries for routine operations. The postings for the switchyard and other FSS controlled survey areas will reflect this exemption.
- 2.) These specific notifications will be documented and approved by the RP/FSS Manager, the approval documents (originals or copies) will be maintained by the FSS Group.
- 4.3.2 Any personnel entry or work activities shall receive authorization from the FSS Supervisor prior to entering any survey areas under FSS I&C.
- 4.3.3 The FSS Supervisor will review and approve all access requests to FSS I&C survey areas utilizing Attachment 2, "FSS Area Access Request, Authorization and Sign In Sheet."
  - 1.) Document the requesting work group's contact person, the activities to be performed, and the expected duration with start and stop dates on Attachment 2.
  - 2.) Assess and determine if there is any potential impact from the introduction of plant-related radioactivity into the survey area and which actions, if any, must be taken to prevent cross-contamination.
  - 3.) Summarize the conclusions of the assessments and document the controls required in the "Access Controls Required" section of Attachment 2.
    - A. If access cannot be approved for the planned activities, then annotate "Denied" in the "Access Controls Required" section of Attachment 2.
  - 4.) All personnel, tools and equipment shall be surveyed for the presence of residual radioactive material or radioactive contamination prior to entering survey areas under FSS I&C that are located within an RCA. The minimum survey requirements should be a hand and foot frisk.
    - A. Exceptions to this survey requirement are allowed under the specific notifications in Step 4.3.1.1.) of this procedure.

**NOTE**

Most approvals are provided daily or on a case-by-case basis. A generic, one-time approval for access may be granted by the FSS Supervisor if the potential for introducing plant-related radioactivity is low. An example would be Security performing routine inspections. Because of the unique situation with the class 2 Cribhouses (LACBWR & G3), G3 personnel will be granted unconditional access. LACBWR decommissioning personnel will be required to pass the PCM monitor before entry as well as obtain FSS Supervisor approval.

- 4.3.4 All personnel entering and exiting survey areas under FSS I&C will annotate the Attachment 2 sign in and sign out sheet for every exit which is controlled by the work activities described on the Attachment 2, and persons may only enter and exit during the duration for which the work activities are approved.

- 1.) Attachment 2 will be maintained in the appropriate FSS folder and will serve as a log for tracking all approved activities and access to the survey area.

- 4.3.5 If the physical configuration and/or radiological conditions in a survey area change where FSS activities are active or have been completed, regardless if the change was due to remediation or for other reasons, then the RP/FSS Manager shall be notified.

- 1.) Provide a description of the area that was impacted (in terms of total surface area or percentage of survey area).
- 2.) Provide the number and location of FSS samples or scan areas that were impacted.
- 3.) The RP/FSS Manager shall request a special surveillance as described in section 4.4, or request a repeat of the FSS for a portion or all of the survey unit that was impacted using Attachment 9 of LC-FS-PR-008, "Final Status Survey Data Assessment" (Reference 2.4).

**4.4. Post FSS Routine & Special Surveillances**

- 4.4.1 The FSS Supervisor will generate and maintain a list of survey areas that have completed FSS and require surveillance, and document entries on Attachment 5, "FSS I&C Surveillance Matrix."

**NOTE**

Surveillances are not required in FSS survey areas that have been backfilled or in piping (embedded or buried) that has been isolated or grouted in place.

**NOTE**

FSS I&C can be formally established after all FSS data acquisition has been acquired in accordance with the FSS Sample Plan and the FSS Supervisor has determined the data acquisition and data DQO are complete and comply with the FSS Sample Plan.

**NOTE**

Routine surveillances will be performed in areas following FSS completion to monitor for indications of recontamination and verification of postings and access control measures. Validation for location integrity will include monthly surveillances for the class 2 cribs (LACBWR & G3) and quarterly surveillances for class 3 structures.

4.4.2 Routine surveillance will be performed in survey areas following formal establishment of FSS I&C to monitor for indications of cross-contamination and verification of postings and access control measures.

- 1.) Perform routine surveillance of each FSS survey area on a semi-annual basis.
- 2.) Surveillance may be performed as directed by supervision at any time that a FSS survey area may be assessed to be radiologically impacted by work activities within or adjacent to the FSS survey area (e.g., transiting a radioactive material package through an FSS survey area, etc.).

4.4.3 Perform surveillance as follows:

- 1.) Review the authorization and reasons for entry into the survey area since the performance of FSS or the last surveillance.
- 2.) Perform a walk-down of the survey area checking:
  - A. That proper postings, barriers, system covers, system seals, etc. are in place and intact,
  - B. For evidence of disturbance, loss of isolation and control, or unauthorized introduction of or placement of radioactive materials, and signs, postings, labels and barriers are legible, accurate and obvious to the casual observer.



- 3.) Document the survey area, survey area type and classification, Reason for surveillance, surveillance activities, comments, observations and whether the results of the surveillance are satisfactory or unsatisfactory on Attachment 4, "FSS I&C Surveillance Summary."
  - 4.) If the results from steps 1 and 2 are not satisfactory, then perform and document a judgmental scan of the survey area, focusing on access and egress points and any areas of disturbance or concern using the same type of instrumentation, scan speed, and alarm set-points as used in the FSS survey.
  - 5.) Document any surveys performed during the surveillance on a survey map of the survey area.
- 4.4.4 Forward the completed Attachment 4, "FSS I&C Surveillance Summary" with any supporting documents, surveys and maps to the FSS Supervisor for review and RP/FSS Manager for approval. Attachment 4, "FSS I&C Surveillance Summary" will be filed with the appropriate survey package.
  - 4.4.5 Update Attachment 5, "FSS I&C Surveillance Matrix," annotating the completed surveillance date and enter the next schedule surveillance date.
  - 4.4.6 If a routine surveillance identifies physical observations or radiological measurements that require further investigation, then FSS may be repeated in the affected survey area at the discretion of the FSS Supervisor and RP/FSS Manager.
  - 4.4.7 If FSS is repeated in a survey area, then generate a new survey plan in accordance with LC-FS-PR-002 "Final Status Survey Package Development."

## 5. ATTACHMENTS

- 5.1. Attachment 1, Area Turnover and Control Checklist
- 5.2. Attachment 2, FSS Area Access Request, Authorization and Sign-In Sheet
- 5.3. Attachment 3, FSS Area Posting Example
- 5.4. Attachment 4, FSS I&C Surveillance Summary
- 5.5. Attachment 5, FSS I&C Surveillance Matrix

## ATTACHMENT 1

## AREA TURNOVER AND CONTROL CHECKLIST

Page 1 of 4

## AREA TURNOVER:

Survey Area No.: \_\_\_\_\_ Survey Area No.: \_\_\_\_\_

Description: \_\_\_\_\_

Survey Area Type: Open Land ☐ Structure ☐ System ☐Classification: Class 3 ☐ Class 2 ☐ Class 1 ☐Survey Area \_\_\_\_\_ m<sup>2</sup> Initiation Date: \_\_\_\_\_

## COMPLETION OF DECOMMISSIONING AND/OR REMEDIATION ACTIVITIES:

## Preparations for FSS: (Completed By Decommissioning Group)

(checked box indicates an affirmative response)

- 1) All decommissioning activities in the area are complete, including removal, as necessary, of items (e.g., sub-surface systems, electrical components, etc.) that could interfere with FSS..... ☐
- 2) All decommissioning activities in areas either adjacent to the survey area to be isolated or that could otherwise affect it are either complete or are deemed not to have any reasonable potential to spread radioactive material to the area..... ☐
- 3) All tools and equipment not needed for FSS are removed..... ☐
- 4) Housekeeping has occurred and is satisfactory for performance for FSS..... ☐
- 5) All transit paths to or through the area, except those required to support FSS, are eliminated or re-routed where practical. .... ☐

This area has been adequately remediated and is acceptable for release for the performance of Final Status Surveys. \_\_\_\_\_

D&D Manager (or designee)  
Print Name/Sign

Date

## PRE-TURNOVER WALK-DOWN:

Walk-Down was: ☐ Performed on: \_\_\_\_\_ Date: \_\_\_\_\_ By: \_\_\_\_\_  
(Print Name/Signature)

☐ Not Performed - Reason Walk-Down was not Performed: \_\_\_\_\_

## SURVEY FOR AREA TURNOVER:

Survey Required for Area Turnover: No-☐ Yes-☐ RA/RASS Sample Plan #: \_\_\_\_\_FSS Supervisor \_\_\_\_\_ Date: \_\_\_\_\_  
(Print Name/Signature)Survey performed by \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
(Print Name/Signature)☐ - Copy of Survey Map and data results attached

**ATTACHMENT 1**  
**AREA TURNOVER AND CONTROL CHECKLIST**

Page 2 of 4

**COMMENTS AND OBSERVATIONS:**

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☐ - Area Turnover Accepted

\_\_\_\_\_  
(Print Name/Signature) FSS Supervisor

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Time)

**POSTINGS AND CONTROLS:**

☐ - Area Posted

\_\_\_\_\_  
(Print Name/Signature) /FSS Supervisor

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Time)

☐ - Other Access Controls Implemented

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

Comments and Observations: \_\_\_\_\_

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**ATTACHMENT 1****AREA TURNOVER AND CONTROL CHECKLIST**

Page 3 of 4

**Survey Area  
Number.:** \_\_\_\_\_**Survey Unit  
Number.:** \_\_\_\_\_**Survey Area  
Type:**Open Land ☐Structure ☐System ☐**Survey Area Classification:****Classification:**Class 3 ☐Class 2 ☐Class 1 ☐**Survey Area** \_\_\_\_\_ m<sup>2</sup>**Description:****Physical Configuration:****Preparations for FSS:**

(checked box indicates an affirmative response)

- 1) All decommissioning activities in the area are complete, including removal, as necessary, of items (e.g., sub-surface systems, electrical components, etc.) that could interfere with the survey..... ☐
- 2) All surfaces to be surveyed are prepared for FSS as necessary (e.g. interferences removed, paint removed, penetrations exposed, excavations backfilled, etc.)..... ☐
- 3) All decommissioning activities in areas either adjacent to the survey area to be isolated or that could otherwise affect it are either complete or are deemed not to have any reasonable potential to spread radioactive material to the area..... ☐
- 4) All tools and equipment not needed for FSS are removed..... ☐
- 5) Housekeeping has occurred and is satisfactory for performance for FSS..... ☐
- 6) All support equipment (e.g., ladders or scaffold) and equipment used for FSS activities does not pose the potential for introducing or spreading plant-related radioactivity in the area..... ☐
- 7) All transit paths to or through the area, except those required to support FSS, are eliminated or re-routed where practical. .... ☐

**Resolved Findings and Observations:** (items that would prevent an affirmative response above and how resolved)

**ATTACHMENT 1****AREA TURNOVER AND CONTROL CHECKLIST**

Page 4 of 4

**Observed or Potential Hazards:**

- |                                  |   |   |
|----------------------------------|---|---|
| - Heat stress or stroke          | - Confined Spaces   | - Kinetic energy sources (moving equipment) |
| - Cold work environment          | - Hazardous atmospheres                                     |   |
| - Stinging insects               | - Load bearing stresses                                     | - Vehicle traffic                           |
| - Hazardous plants and/or animal | - Lack of structural integrity (structure, floor)           | - Overhead piping or components             |
| - Tripping hazards               |   | - Exposed electrical circuitry              |
| - Standing water > 1ft deep      | - Release of stored energy sources (hydraulic, steam, etc.) | - Sharp objects or surfaces                 |
| - Fall hazards                   |   | - Falling objects                           |
| - Work @ height > 6ft            | - Buried utilities  | - Other _____                               |
| - Open excavations               | - Overhead power lines                                      | - Other _____                               |

Each hazard identified must be evaluated to determine if the hazard can be eliminated, avoided, or minimized, as well as the need for additional support/expertise)

**Hazard(s) Mitigation Measures:****Conditions or Physical Constraints That May Affect Survey Performance:**

- |                              |                              |                             |
|------------------------------|------------------------------|-----------------------------|
| - Painted Surfaces           | - Standing Water             | - Oily Surface              |
| - Cracks/Crevices in Surface | - Constraining Vegetation    | - Remaining Equipment/Items |
| - Inaccessible Surfaces      | - Ledge or Rock Outcroppings | - Other _____               |

**Resolution:****Survey Area Preparation for Survey:**

- |                               |                                |                   |
|-------------------------------|--------------------------------|-------------------|
| - Mark reference grid         | - Set-up Man Lift              | - Extension poles |
| - GPS                         | - Confined space permit        | - Other _____     |
| - Mark survey area boundaries | - Set-up Temporary Ventilation | - Other _____     |
| - Erect Scaffolding           | - Radiation Work Permit        | - Other _____     |

**Preparation Details:**

Submitted:

\_\_\_\_\_  
Print Name/Signature/Date

Reviewed:

\_\_\_\_\_  
Print Name/Signature/Date

**ATTACHMENT 2****FSS AREA ACCESS REQUEST, AUTHORIZATION AND SIGN IN SHEET**

<b>Survey Area #</b>	<b>Name</b>	<b>SSN(Last four digits)</b>	<b>Reason for Entry</b>	<b>Date</b>	<b>Time In</b>	<b>Time Out</b>

**ATTACHMENT 3**

**FSS AREA POSTING EXAMPLES**

**NOTICE**

Final Status Survey

**CLEAN AREA**

**THIS AREA IS UNDER THE CONTROL  
OF HEALTH PHYSICS**

**NO DECOMMISSIONING ACTIVITIES  
ARE TO BE PERFORMED IN THIS  
AREA WITHOUT PRIOR APPROVAL**

**THE USE, MOVEMENT OR STORAGE OF  
RADIOACTIVE MATERIAL IS PROHIBITED  
IN THIS AREA**

**ENTRY OF PERSONNEL IN THIS AREA IS  
PROHIBITED WITHOUT THE  
AUTHORIZATION OF HEALTH PHYSICS**

**CONTACT:** \_\_\_\_\_

**EXTENSION:** \_\_\_\_\_

**ATTACHMENT 3**  
**FSS POSTING EXAMPLE**

# NOTICE

Final Status Survey

**CLEAN AREA**

LACBWR DECOMMISSIONING PERSONNEL ARE REQUIRED  
TO FOLLOW ACCESS REQUIREMENTS OF PROCEDURE  
LC-FS-PR-010

LACBWR DECOMMISSIONING PERSONNEL ARE REQUIRED  
TO CONTACT FSS SUPERVISION PRIOR TO ENTRY

CONTACT INFORMATION

Joe Jacobsen: Radio or Phone # 4259

Bob Reheard: Radio or Phone # 4202

Greg Peterschmidt: Radio or Phone # 4222



**ATTACHMENT 4****FSS I&C SURVEILLANCE SUMMARY****AREA TURNOVER:**Survey Area  
Number.:Survey Unit  
Number:

Description:

Survey Area  
Type:Open Land ☐Structure ☐System ☐

Classification:

Class 3 ☐Class 2 ☐Class 1 ☐

Reason for Surveillance:

Semi-Annual ☐Quarterly ☐Monthly ☐Special ☐

Surveillance Due Date:

Reason:

**SURVEILLANCE ACTIVITIES:**

1.) Review LC-FS-PR-010 Attachment 2, FSS Area Access Request, Authorization and Sign-In Sheet for authorized entries into the FSS Survey Area.----- ☐

2.) Perform a walk down of the FSS Survey Area and identify decommissioning activities adjacent survey areas that could have a reasonable potential to spread radioactive material to the FSS Survey Area.----- ☐

**SURVEILLANCE COMMENTS AND OBSERVATIONS:**


☐ - Surveillance Satisfactory☐ - Surveillance Unsatisfactory

Date:

Time:

(Print Name/Signature) FSS Technician

Date:

Time:

(Print Name/Signature) FSS Supervisor

Date:

Time:

(Print Name/Signature) RP/FSS Manager

**ATTACHMENT 5****FSS I & C SURVEILLANCE MATRIX**

<b>Survey Area/Unit #</b>	<b>FSS I&amp;C Established Date</b>	<b>1<sup>st</sup> Surveillance Schedule</b>	<b>1<sup>st</sup> Surveillance Performed</b>	<b>2<sup>nd</sup> Surveillance Schedule</b>	<b>2<sup>nd</sup> Surveillance Performed</b>