

ENVIRONMENTAL COMPLIANCE & AREA COMPLETION PROJECTS (EC&ACP) STANDARD OPERATING PROCEDURES, VOL. I

Manual: C3
 Procedure: ER-IDS-019-063
 Revision: 4
 Effective Date: 1/08/2020
 Type-Class: Checklist
 Page: 1 of 25

R-AREA OPERABLE UNIT REACTOR BUILDING AND DISASSEMBLY BASIN FIELD INSPECTION CHECKLIST

CPL
11/16/2

WORKING COPY

This document is a Working Copy. Prior to start of work, verify this is the latest revision per the Procedure Index.

Charles P. Carter

Verified By

10/13/2021

Date

CAUTION

The Inspector shall IMMEDIATELY notify the Post-Closure Manager and Environmental Compliance Authority if there has been a breach or compromise of the institutional controls of this waste unit. This notification shall be in accordance with Savannah River Site post-closure inspection procedures.

NOTE

1. Manual C3, ER-SOP-019, Waste Unit IOU Inspection and Maintenance, shall be referred to for inspection details.
2. Steps in this checklist may be completed concurrently or in any order.
3. Due to high elevation and hard to reach area of the roofs, this verification may be performed by reviewing and evaluating aerial photos/videos. Observed changes from previous inspections such as structural collapses, visual water seepage from lower portions of the building, visible changes in standing water, or drainage patterns on the roofs shall be evaluated for action. Any photos and or videos used for this evaluation shall be stored in an EC&ACP data disk with the data disk number documented on the inspection sheet.

SCHEDULED

UNSCHEDULED

A = Satisfactory X Unsatisfactory (Explanation required)	A or X	Observation/Corrective Action Taken
1. Verify roads are accessible to 105-R Reactor Building and Basin.	A	
2. Verify 105-R Reactor Building Complex roofs are functioning and free of woody vegetation. Submit inspection reports to Cognizant Technical Function to review and evaluate functionality of roofs.	A	Herbicide was applied to the roofs via drone on 09/14/2021 Reference completed Post Closure Maintenance Register PC-2020-00002 Roofs are functioning as intended and are free of woody vegetation See attached CTF comments

R-Area Operable Unit Reactor Building and Disassembly Basin Field Inspection Checklist

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SCHEDULED UNSCHEDULED

A = Satisfactory X = Unsatisfactory (Explanation required)		A or X	Observation/Corrective Action Taken
3.	Verify access doors to 105-R Reactor Building complex and concrete cover at 108-1R and 108-2R Engine House are sealed.	A	
4.	Verify excessive deterioration of disassembly basin cover has not occurred and basin cover is free from debris and woody vegetation.	A	
5.	Check integrity of stone armament for presence of excessive erosion. Maintain area surrounding building up to and including perimeter roads for vegetation.	A	
6.	Verify there are no unauthorized excavations, digging, or construction activities at or in close vicinity of building.	A	
7.	Other Roof top Photos	A	UAS footage stored in EC&ACP data disk: <u>SRNS-EM-2021-00033</u>

Inspected By		
Charles P. Carter <i>(Print Name)</i>	<i>Charles P. Carter</i> <i>(Signature)</i>	11/16/2021 <i>(Date)</i>

Review By Cognizant Technical Function		
James R. Ullery <i>(Print Name)</i>	<i>James R. Ullery</i> <i>(Signature)</i>	11/16/2021 <i>(Date)</i>

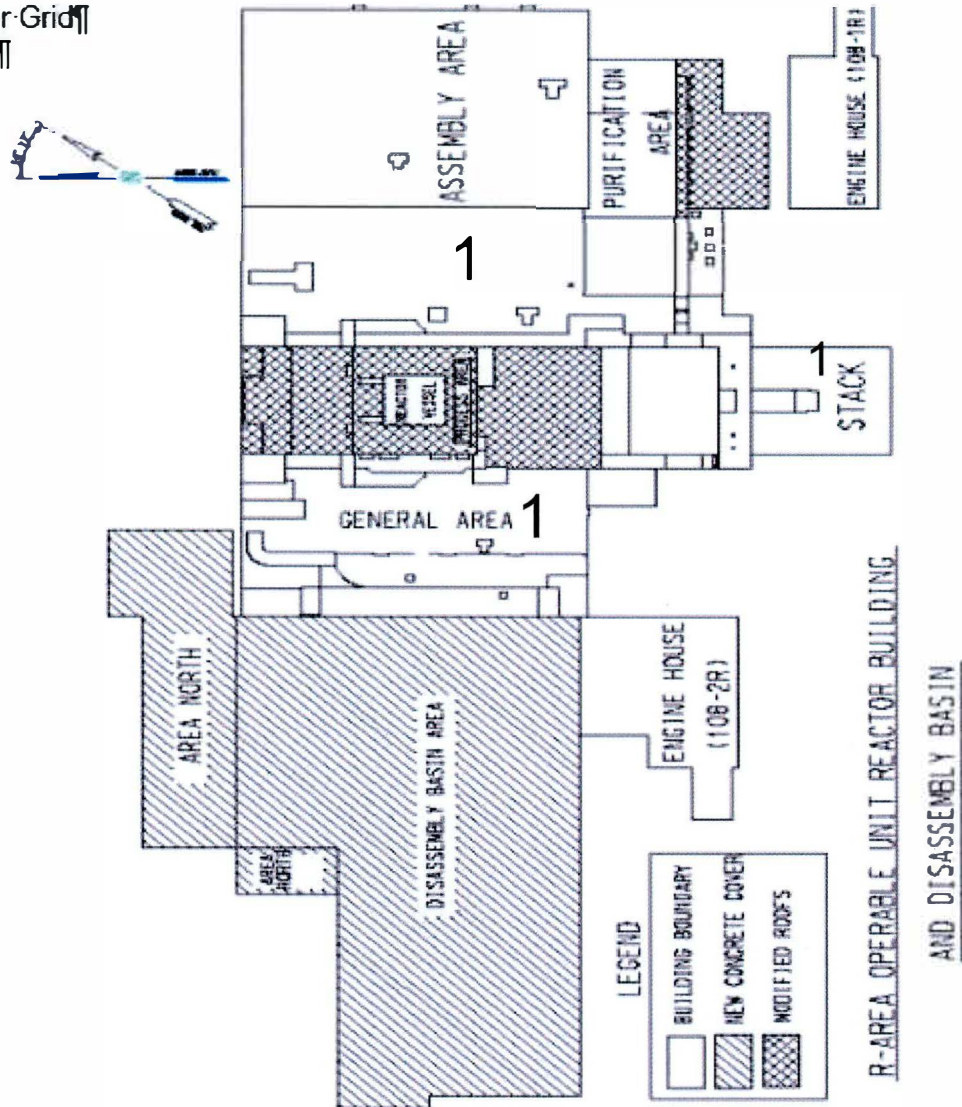
Review By Post-Closure Manager		
George W. Joyner <i>(Print Name)</i>	<i>George W. Joyner</i> <i>(Signature)</i>	11/16/21 <i>(Date)</i>

R-Area Operable Unit Reactor Building and Disassembly Basin Field Inspection Checklist

CPC
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Map of R-Area Operable Unit Reactor Building and Disassembly Basin

Remote Worker Grid
N-2--E4



NOTES: See attached CTF comments

NO FURTHER ENTRIES

R-Reactor Building and Disassembly Basin Inspections

The purpose of this document is to review and evaluate the R – Reactor Building and Disassembly Basin Inspections for the past ten (10) years and to complete the 2021 Inspection with those previous inspections considered. Over the last ten years there have been three different Post Closure Maintenance Coordinators (Inspectors) and three different Post Closure DAE Engineers. With the changes in those performing the inspections and those Engineers evaluating the results of the inspections, this is a good point to consider and evaluate those activities over the past ten years.

In 2012 the Post Closure Maintenance Coordinator (Inspector) was Richard G. Feagin and the ACP Post Closure DAE was Mo Kasraii. In 2014 Steve Willingham took over the duties of Post Closure Maintenance Coordinator (Inspector). In 2017, Peter Avioli took over the duties of the ACP Post Closure DAE and Phil Carter took over the duties of Post Closure Maintenance Coordinator (Inspector). In 2021, Jim Ullery took over the duties of ACP Post Closure DAE.

Beginning with the inspections that were completed in October 2012 and ending with the inspections that were completed in October 2021.

The following are major issues discussed in the inspections:

VEGETATION: Three types of vegetation are discussed in one or more inspections during the ten years under consideration: 1) Roof top vegetation, primarily non-woody but woody vegetation has been observed; 2) Vines and other vegetation in the armament; and 3) Vegetation around the warning signs. Vegetation has been an issue for the last ten years. In 2016 herbicide was applied to the roof by means of man lifts and sprayers. Again in 2020, herbicide was attempted to be applied by means of drone application, but this attempt failed. Then in 2021, successful application of herbicide was accomplished by means of drone. The drone camera inspection of the roofs two to three weeks after application indicated most of the vegetation was dead or dying. The only green noted was on moss-like growth that is not woody and takes longer for herbicide to kill. An additional drone herbicide application is planned for 2022, which should significantly control the vegetation. Herbicide has been applied to the armament and to areas around warning signs are mowed frequently and the vegetation in these areas is under control.

LOSS OF CAULKING IN EXPANSTION JOINTS: On several inspections in the most recent years, the caulking in some expansion joints was in need of repair. A maintenance register (PC-2017-00089) was issued and this problem has been repaired.

CONCRETE SPALLS: Surface splintering of concrete was noted on several inspections. An engineering evaluation (See Peter Avioli's email to Richard Feagin/Kelsey Holcomb, 10/31/2017) was conducted and it determined that these spalls were created earlier when forms were removed from concrete pours. The structural integrity of the areas of the spalls was undiminished but these areas should be monitored for deterioration.

A recommendation to continue to monitoring previously noted areas of concern continues is suggested.



James R. Ullery, P.E.

EC&ACP, Post Closure DAE/CTF