

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

Manual: C3  
 Procedure: ER-IDS-019-065  
 Revision: 4  
 Effective Date: 1/08/2020  
 Type-Class: Checklist  
 Page: 1 of 5

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

**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

CPC  
11/16/21

**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 Inspection and IOU 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 a 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-P Reactor Building and Basin.	A	
2.	Verify 105-P 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-2020-00003 Roofs are functioning as intended and are free of woody vegetation. See attached CTF comments.

P-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-P Reactor Building complex and concrete cover at the 108-1P and 108-2P Engine House are sealed.	A	
4.	Verify excessive deterioration of disassembly basin cover has not occurred, basin cover is free from debris, and woody vegetation.	A	
5.	Check integrity of stone armament for presence of excessive erosion. Maintain area surrounding the building up to and including perimeter roads for vegetation.	A	
6.	Verify there are no unauthorized excavations, digging, or construction activities at or close vicinity of the building.	A	
7.	Other  Roof top Photos	A	UAS footage stored in EC&ACP data disk: SRNS - EM - 2021 - 00032

Inspected By

Charles P. Carter <i>(Print Name)</i>	<i>Charles P. Carter</i> <i>(Signature)</i>	11/16/2021 <i>(Date)</i>
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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>
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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>
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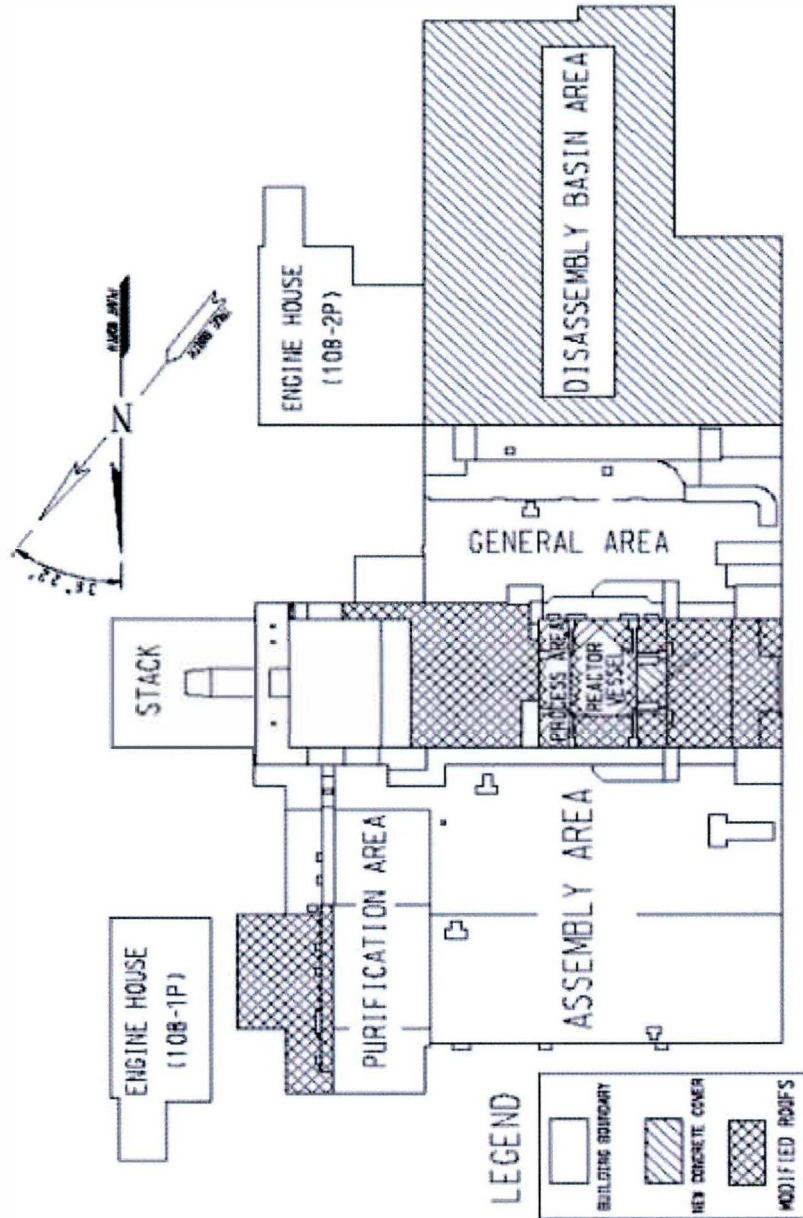
P-Area Operable Unit Reactor Building and Disassembly Basin Field Inspection Checklist

*cpc*  
*11/16/21*

Map of P-Area Operable Unit Reactor Building and Disassembly Basin

Remote Worker Grid

S2--E4



NOTES: See attached CTF comments.

NO FURTHER ENTRIES

## P-Reactor Building and Disassembly Basin Inspections

The purpose of this document is to review and evaluate the P-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.

**WATER SEEPING FROM CONCRETE WALLS:** Water seeping from certain areas of concrete were noted in early inspections. An engineering evaluation (See Mo Kasraii email to Richard Feagin/Steve Willingham, 11/14/2012) was performed and it was determined that the seeps were not destructive and the water was not contaminated by means of radiological survey (DDSG-M-20121011-1).

**CRACKS IN CONCRETE:** Cracks were observed in several inspections from 2013 forward. A fairly large crack was noted in the South East corner near the stack area. An engineering evaluation (ARF-019497) was performed and it was determined that the crack was cosmetic and not structural. This crack is observed on every annual inspection and there has not been any significant change from the initial finding.

**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-2017-00091) was issued and this problem has been repaired.

**WHITE POWDERY SUBSTANCE:** In several inspections, 2013 and 2014, a white powdery substance was observed in concrete especially around surficial cracks. An engineering evaluation (See Bill Griffin email to Steve Willingham, 11/11/2014) and it was determined that this substance was efflorescence. This occurrence is common and not a cause for concern.

**GENERAL:** A maintenance record (PC-2017-00090) was created concerning the vegetation, silt, sand and debris on the roof in P-Reactor Inspections. See the comments above regarding vegetation. The silt, sand and debris on the roof does not appear to be causing any detrimental effects on the functionality of the roof. This issue will continue to be monitored in future inspections and this record should be closed out based on the condition of the vegetation from the most recent inspection and the planned additional herbicide application next calendar year.

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

A handwritten signature in black ink, appearing to read "James R. Ullery", with a long horizontal line extending to the right.

James R. Ullery, P.E.

EC&ACP, Post Closure DAE/CTF