Tables for Reporting MRP-227-A Inspection Results for Westinghouse Plants

Plant Name: Prairie Island Unit 2 **Utility:** Xcel Energy

Date of Exams: 27NOV13 thru 03DEC13 **Plant Age:** 39 (years) / 34 EFPY

Primary Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Control Rod Guide Tube Assembly Guide plates (cards)	Visual examination (VT-3)	20% examination of the number of CRGT assemblies, with all guide cards within each selected CRGT assembly examined. See Figure 4-20 of MRP-227-A	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Control Rod Guide Tube Assembly Lower flange welds	Enhanced visual examination (EVT-1) to determine the presence of crack-like surface flaws in flange welds	100% of outer (accessible) CRGT lower flange weld surfaces and adjacent base metal on the individual periphery CRGT assemblies. (Note 2) See Figure 4-21 of MRP-227-A.	Not Inspected this outage	
Comments:				
Core Barrel Assembly Upper core barrel flange weld	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 4). See Figure 4-22 of MRP-227-A.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Upper and lower core barrel cylinder girth welds	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 4). See Figure 4-22 of MRP-227-A	Not Inspected this outage	
Comments:				
Core Barrel Assembly Lower core barrel flange weld (Note 5)	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 4).	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Baffle-Former Assembly Baffle-edge bolts	Visual examination (VT-3)	Bolts and locking devices on high fluence seams. 100% of components accessible from core side (Note 3). See Figure 4-23 of MRP-227-A.	Not Inspected this outage	
Comments:				
Baffle-Former Assembly Baffle-former bolts	Volumetric examination (UT)	100% of accessible bolts (Note 3). Heads accessible from the core side. UT accessibility may be affected by complexity of head and locking device designs. See Figures 4-23 and 4-24 of MRP-227-A.	728 out of 728 bolts	75 bolts with indications. 21 of these were Head-to-shank. 54 of these were in the shank. 653 bolts had no indications. There were no bolts with indications in the large, low-fluence plates The extent of the bolt failures was bounded by minimum pattern analysis plus margin term per WCAP-17096
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Baffle-Former Assembly Assembly (Includes: Baffle plates, baffle edge bolts and indirect effects of void swelling in former plates)	Visual examination (VT-3)	Core side surface as indicated. See Figures 4-24, 4-25, 4-26 and 4-27 of MRP-227-A.	Not Inspected this outage	
Comments:				
Alignment and Interfacing Components Internals hold down spring	Direct measurement of spring height	Measurements should be taken at several points around the circumference of the spring, with a statistically adequate number of measurements at each point to minimize uncertainty. See Figure 4-28 of MRP-227-A.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Thermal Shield Assembly Thermal shield flexures	Visual examination (VT-3)	100% of thermal shield flexures. See Figures 4-29 and 4-36 of MRP-227-A.	Not Inspected this outage	
Comments:				

Notes to Westinghouse Primary Components Table:

1. Examination acceptance criteria and expansion criteria for the Westinghouse components are in Table 5-3 of MRP-227-A.
2. A minimum of 75% of the total identified sample population must be examined.
3. A minimum of 75% of the total population (examined + unexamined), including coverage consistent with the Expansion criteria in Table 5-3 of MRP-227-A, must be examined for inspection credit.
4. A minimum of 75% of the total weld length (examined + unexamined), including coverage consistent with the Expansion criteria in Table 5-3 of MRP-227-A, must be examined from either the inner or outer diameter for inspection credit.
5. The lower core barrel flange weld may be alternatively designated as the core barrel-to-support plate weld in some Westinghouse plant designs.

Expansion Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Upper Internals Assembly Upper core plate	Enhanced visual examination (EVT-1)	100% of accessible surfaces (Note 2).	Not Inspected this outage	
Comments:				
Lower Internals Assembly Lower support forging or castings	Enhanced visual examination (EVT-1)	100% of accessible surfaces (Note 2). See Figure 4-33 of MRP-227-A.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Barrel-former bolts	Volumetric examination (UT)	100% of accessible bolts. Accessibility may be limited by presence of thermal shields or neutron pads (Note 2). See Figure 4-23 of MRP-227-A.	Not Inspected this outage	
Comments:				
Lower Support Assembly Lower support column bolts	Volumetric examination (UT)	100% of accessible bolts or as supported by plant-specific justification (Note 2). See Figures 4-32 and 4-33 of MRP-227-A.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Core barrel outlet nozzle welds	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 2). See Figure 4-22 of MRP-227-A.	Not Inspected this outage	
Comments:				
Core Barrel Assembly Upper and lower core barrel cylinder axial welds	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 2). See Figure 4-22 of MRP-227-A.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Lower Support Assembly Lower support column bodies (non cast)	Enhanced visual examination (EVT-1)	100% of accessible surfaces (Note 2). See Figure 4-34 of MRP-227-A.	Not Inspected this outage	
Comments:				
Lower Support Assembly Lower support column bodies (cast)	Enhanced visual examination (EVT-1)	100% of accessible support columns (Note 2). See Figure 4-34 of MRP-227-A.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Bottom Mounted Instrumentation System Bottom-mounted instrumentation (BMI) column bodies	Visual examination (VT-3)	100% of BMI column bodies for which difficulty is detected during flux thimble insertion/withdrawal. See Figure 4-35 of MRP-227-A.	Not Inspected this outage	
Comments:				

Notes to Westinghouse Expansion Component Table:

1. Examination acceptance criteria and expansion criteria for the Westinghouse components are in Table 5-3 of MRP-227-A .
2. A minimum of 75% coverage of the entire examination area or volume, or a minimum sample size of 75% of the total population of like components of the examination is required (including both the accessible and inaccessible portions).

Existing Programs Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Core Barrel Assembly Core barrel flange	Visual examination (VT-3) to determine general condition for excessive wear.	All accessible surfaces at specified frequency.	Not Inspected this outage	
Comments:				
Upper Internals Assembly Upper support ring or skirt	Visual examination (VT-3)	All accessible surfaces at specified frequency.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Lower Internals Assembly Lower core plate XL lower core plate (Note 1)	Visual (VT-3) examination of the lower core plates to detect evidence of distortion and/or loss of bolt integrity.	All accessible surfaces at specified frequency.	Not Inspected this outage	
Comments:				
Lower Internals Assembly Lower core plate XL lower core plate (Note 1)	Visual examination (VT-3)	All accessible surfaces at specified frequency.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Bottom Mounted Instrumentation System Flux thimble tubes	Surface examination (ET)	Eddy current surface examination as defined in plant response to IEB 88-09.	35 out of 36 flux thimble tubes (one has an internal restriction due to having been bent and is capped off)	6 tubes with wall loss 40-59% 18 tubes with wall loss 20-39% 1 tube with wall loss 1-19% 10 tubes with no wall loss
Comments: *** REPORT UPON THESE INSPECTIONS ONLY WHEN DONE IN CONJUNCTION WITH MRP-227-A RELATED EXAMS. ***				
Alignment and Interfacing Components Clevis insert bolts	Visual examination (VT-3)	All accessible surfaces at specified frequency.	Not Inspected this outage	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Alignment and Interfacing Components Upper core plate alignment pins	Visual examination (VT-3)	All accessible surfaces at specified frequency.	Not Inspected this outage	
Comments:				

Notes to Westinghouse Existing Programs Components Table:

1. XL = "Extra Long" referring to Westinghouse plants with 14-foot cores.

Tables for Reporting MRP-227-A Inspection Results for B&W Plants

Plant Name: Oconee Unit 2 **Utility:** Duke Energy

Date of Exams: 10/12/2013 to 12/5/2013 **Plant Age:** 40 **(years) /** 31.82 **EFPY**

Primary Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 2)
Plenum Cover Assembly & Core Support Shield Assembly Plenum cover weldment rib pads Plenum cover support flange CSS top flange	One-time physical measurement (initial Inspection) Visual (VT-3) for subsequent inspections	Determination of differential height of top of plenum rib pads to reactor vessel seating surface, with plenum in reactor vessel. See Figure 4-1 of MRP-227-A.	Measurement performed in 2008 VT-3 100%	No relevant Indications were noted. No relevant Indications were noted.
Comments: The one-time physical measurement was performed in Fall 2008 with no evidence of wear occurring during service period				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 2)
Control Rod Guide Tube Assembly CRGT spacer castings	Visual (VT-3)	Accessible surfaces at each of the 4 screw locations (at every 90°) of 100% of the CRGT spacer castings (limited accessibility). See Figure 4-5 of MRP-227-A.	100% 690 castings with 4 screws each.	No relevant Indications were noted.
Comments:				
Core Support Shield Assembly CSS vent valve top retaining ring CSS vent valve bottom retaining ring (Note 1)	Visual (VT-3)	100% of accessible surfaces (see BAW-2248A, page 4.3 and Table 4-1). See Figure 4-11 of MRP-227-A.	100% There are 8 vent valves.	No relevant Indications were noted on retaining rings. See Comment Section for relevant indications noted on other CSS vent valve parts.
Comments: The jack screw locking devices are not currently in MRP-227 but were identified as needing to be screened in A/LAI #2. Additional parts of the Vent Valves, including the jack screw locking devices, receive a ASME Section XI, Category B-N-3 VT-3 examination. Vent Valve XY - The left lower barrel nut was raised out of the normal position, and moderate deformation was present on the left outside corner of the center jack screw guide block. Vent Valve XY was replaced during the outage. Vent Valve XW - The left jack screw locking cup has a tear in the upper crimped section; however, the crimped locking device was in place with no evidence of movement. Additionally, deformation was present on the center guide block of the right jack screw. The indications on Vent Valve XW were evaluated and left in place. Vent Valve ZW - The right jack screw locking cup has a tear in the upper crimped section; however, the crimped locking device was in place with no evidence of movement. The indication on Vent Valve ZW was evaluated and left in place.				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 2)
Core Support Shield Assembly Upper core barrel (UCB) bolts and their locking devices	Volumetric examination (UT) of the bolts Visual (VT-3) examination of bolt locking devices	100% of accessible bolts and their locking devices. (Note 3) See Figure 4-7 of MRP-227-A.	UT performed in 2008 (120 UCB bolts) VT-3 100% performed this outage (120 locking devices)	No relevant Indications were noted. No relevant Indications were noted.
Comments: 120 (100%) upper core barrel bolts were UT inspected in Fall 2008 with no indications found.				
Core Barrel Assembly Lower core barrel (LCB) bolts and their locking devices	Volumetric examination (UT) of the bolts Visual (VT-3) examination of bolt locking devices	100% of accessible bolts and their locking devices (Note 3) See Figure 4-8 of MRP-227-A.	100% - 108 *b*olts 100% - 106 bolts and locking devices. 75% - 2 bolts and locking devices (#1 and 19).	UT – 1 lower core barrel bolt with crack like indications (#90). VT – No relevant indications
Comments: Recordable UT indication was detected in LCB Bolt #90. The indication is located in the bolt head-to-shank region. The VT-3 Examination coverage for LCB Bolts #1 and #19 and their locking devices is 75% due to the obstruction from the adjacent core support assembly (CSA) stand. The bolts and locking devices are in place with no evidence of movement. No Relevant Indications Noted.				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 2)
Core Barrel Assembly Baffle-to-former bolts	Volumetric examination (UT)	100% of accessible bolts. (Note 3) See Figure 4-2 of MRP-227-A.	863 out of 864 1 baffle-to-former bolt was un-inspectable due to probe not seating correctly.	No relevant Indications were noted. 1 un-inspectable
Comments: Examination limitation was noted on Hex Head Baffle-to-Former Bolt (Quadrant – Plate – Column – Elevation) #3-3-2-3. Probe did not seat correctly. Due to the absence of UT information in two of four channels this bolt is classified as un-inspectable.				
Core Barrel Assembly Baffle plates	Visual examination (VT-3)	100% of the accessible surface within 1 inch around each flow and bolt hole. See Figure 4-2 of MRP-227-A.	100%	No relevant Indications were noted.
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 2)
Core Barrel Assembly Locking devices, including locking welds, of baffle-to-former bolts and internal baffle-to-baffle bolts	Visual examination (VT-3)	100% of accessible baffle-to-former and internal baffle-to-baffle bolt locking devices. (Note 3) See Figure 4-2 of MRP-227-A.	100% 864 baffle-to-former and 272 internal baffle-to-baffle bolts.	No relevant Indications were noted.
Comments:				
Flow Distributor Assembly Flow distributor (FD) bolts and their locking devices	Volumetric examination (UT) of the bolts Visual (VT-3) examination of bolt locking devices	100% of accessible bolts and their locking devices. (Note 3) See Figure 4-8 of MRP-227-A.	UT -- 100% 96 bolts inspected. VT – 100% 96 bolts and their locking devices inspected.	UT – 2 flow distributor bolts (#4 and #48) with crack like indications. VT – No relevant Indications were noted.
Comments: Recordable UT indications detected in FD Bolts #4 and #48. Both indications are located in the bolt head-to-shank region.				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 2)
Lower Grid Assembly Alloy X-750 dowel-to-guide block welds	Visual examination (VT-3)	Accessible surfaces of 100% of the 24 dowel-to-guide block welds. See Figure 4-4 of MRP-227-A.	100% 24 dowel-to-guide blocks welds.	No relevant Indications.
Comments:				
Incore Monitoring Instrumentation (IMI) Guide Tube Assembly IMI guide tube spiders IMI guide tube spider-to-lower grid rib section welds	Visual examination (VT-3)	100% of top surfaces of 52 spider castings and welds to the adjacent lower grid rib section. See Figures 4-3 and 4-6 of MRP-227-A.	100% 52 spider castings, each casting with 8 welds.	No relevant Indications were noted.
Comments:				

Notes to B&W Primary Component Table

1. A verification of the operation of each vent valve shall also be performed through manual actuation of the valve. Verify that the valves are not stuck in the open position and that no abnormal degradation has occurred. Examine the valves for evidence of scratches, pitting, embedded particles, leakage of the seating surfaces, cracking of lock welds and locking cups, jack screws for proper position, and wear. The frequency is defined in each unit's technical specifications or in their pump and valve inservice test programs (see BAW-2248A, page 4-3 and Table 4-1, reference 18 of MRP-227-A).
2. Examination acceptance criteria and expansion criteria for the B&W components are in Table 5-1 of MRP-227-A.
3. A minimum of 75% of the total population (examined + unexamined), including coverage consistent with the Expansion criteria in Table 5-1, must be examined for inspection credit.

Expansion Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Upper Grid Assembly Alloy X-750 dowel-to-upper grid fuel assembly support pad welds	Visual examination (VT-3)	Accessible surfaces of 100% of the dowel locking welds. See Figure 4-6 of MRP-227-A (i.e., these are similar to the lower grid fuel assembly support pads).	N/A	
Comments:				
Core Barrel Assembly Upper thermal shield (UTS) bolts and their locking devices	Bolts: Volumetric examination (UT). Locking Devices: Visual examination (VT-3)	100% of accessible bolts or studs/nuts and their locking devices (Note 2). See Figure 4-7 of MRP-227-A.	N/A	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Surveillance specimen holder tube (SSHT) studs/nuts (CR-3) or bolts (DB) and their locking devices	Bolt or Stud/Nut: Volumetric examination (UT). Locking Devices: Visual examination (VT-3)	100% of accessible bolts or studs/nuts and their locking devices (Note 2). See Figure 4-7 of MRP-227-A.	N/A	
Comments:				
Lower Grid Assembly Lower grid fuel assembly support pad items: pad, pad-to-rib section welds, Alloy X-750 dowel, cap screw, and their locking welds	Visual examination (VT-3)	Accessible surfaces of the pads, dowels, and cap screws, and associated welds in 100% of the lower grid fuel assembly support pads. See Figure 4-6 of MRP-227-A.	N/A	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Lower Grid Assembly Alloy X-750 dowel-to-lower grid fuel assembly support pad welds	Visual examination (VT-3)	Accessible surfaces of 100% of the support pad dowel locking welds. See Figure 4-6 of MRP-227-A.	N/A	
Comments:				
Lower Grid Assembly Lower grid shock pad bolts and their locking devices	Bolts: Volumetric examination (UT). Locking Devices: Visual examination (VT-3)	100% of accessible bolts and their locking devices. (Note 2) See Figure 4-4 of MRP-227-A.	N/A	
Comments:				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Lower Grid Assembly Lower thermal shield (LTS) bolts (ANO-1, DB and TMI-1) or studs/nuts (ONS, CR-3) and their locking devices	Bolts: Volumetric examination (UT). Locking Devices: Visual examination (VT-3)	100% of accessible bolts and their locking devices. (Note 2) See Figure 4-8 of MRP-227-A.	N/A	
Comments:				

Notes to B&W Expansion Components Table:
1. Examination acceptance criteria and expansion criteria for the B&W components are in Table 5-1 of MRP-227-A.
2. A minimum of 75% of the total population (examined + unexamined) must be examined for inspection credit.

Expansion Components Requiring Evaluation or Replacement In Lieu of Inspection

Item	Examination Method	Disposition
Core Barrel Assembly Core barrel cylinder (including vertical and circumferential seam welds) Former plates	No examination requirements. Justify by evaluation or by replacement.	
Comments:		
Core Barrel Assembly Baffle-to-baffle bolts Core barrel-to-former bolts	Internal baffle-to-baffle bolts: No examination requirements, Justify by evaluation or by replacement.	
	External baffle-to-baffle bolts, core barrel-to-former bolts: No examination requirements. Justify by evaluation or by replacement.	
Comments:		
Core Barrel Assembly Locking devices, including locking welds, for the external baffle-to-baffle bolts and core barrel-to-former bolts	No examination requirements. Justify by evaluation or by replacement.	
Comments:		

Tables for Reporting MRP-227-A Inspection Results for Westinghouse Plants

Plant Name: Point Beach Nuclear Plant Unit 2 **Utility:** NextEra Energy

Date of Exams: March, 2014 (U2R33) **Plant Age:** 41 (years) / 34 EFPY

Primary Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Control Rod Guide Tube Assembly Guide plates (cards)	Visual examination (VT-3)	20% examination of the number of CRGT assemblies, with all guide cards within each selected CRGT assembly examined. See Figure 4-20 of MRP-227-A	100% of the CRGT assemblies	See below

Comments:

A VT-3 inspection and Guide Card Wear Measurements (GCWM) were completed on thirty-three (33) guide tubes, this being 100% of the rodded locations in the upper internals.

In total, fifty-one (51) recordable indications were identified during the guide card inspection, and all indications were analyzed by Westinghouse Engineering.

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Control Rod Guide Tube Assembly Lower flange welds	Enhanced visual examination (EVT-1) to determine the presence of crack-like surface flaws in flange welds	100% of outer (accessible) CRGT lower flange weld surfaces and adjacent base metal on the individual periphery CRGT assemblies. (Note 2) See Figure 4-21 of MRP-227-A.	100% of outer CRGT lower flange welds and adjacent base metal	No recordable indications
Comments: An EVT-1 inspection of the upper and lower GT flange welds was completed on twenty-four (24) guide tubes around the periphery of the upper internals. One-hundred eleven (111) welds were inspected to EVT-1 quality, and an additional fifty-two (52) welds were inspected, but EVT-1 quality was not demonstrated. No recordable indications were identified during the GT flange weld inspection.				
Core Barrel Assembly Upper core barrel flange weld	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 4). See Figure 4-22 of MRP-227-A.	Not examined	
Comments: **To be examined during U2R34**				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Upper and lower core barrel cylinder girth welds	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 4). See Figure 4-22 of MRP-227-A	Not examined	
Comments: **To be examined during U2R34**				
Core Barrel Assembly Lower core barrel flange weld (Note 5)	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 4).	Not examined	
Comments: **To be examined during U2R34**				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Baffle-Former Assembly Baffle-edge bolts	Visual examination (VT-3)	Bolts and locking devices on high fluence seams. 100% of components accessible from core side (Note 3). See Figure 4-23 of MRP-227-A.	Not examined	
Comments: **To be examined during U2R34**				
Baffle-Former Assembly Baffle-former bolts	Volumetric examination (UT)	100% of accessible bolts (Note 3). Heads accessible from the core side. UT accessibility may be affected by complexity of head and locking device designs. See Figures 4-23 and 4-24 of MRP-227-A.	100% (727 – see below)	15 (< 3%) original bolts exhibited reportable ultrasonic indications. All of the reported indications in the bolts were in the head to shank interface region (DHS). No reported indications in the replacement bolts
Comments: 552 - original bolts. 175 - replacement bolts Total of 727 bolts. One bolt location does not contain a bolt				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Baffle-Former Assembly Assembly (Includes: Baffle plates, baffle edge bolts and indirect effects of void swelling in former plates)	Visual examination (VT-3)	Core side surface as indicated. See Figures 4-24, 4-25, 4-26 and 4-27 of MRP-227-A.	Not examined	
Comments: **To be examined during U2R34**				
Alignment and Interfacing Components Internals hold down spring	Direct measurement of spring height	Measurements should be taken at several points around the circumference of the spring, with a statistically adequate number of measurements at each point to minimize uncertainty. See Figure 4-28 of MRP-227-A.	N/A	
Comments: **N/A – Point Beach Internals hold down spring is Type 403 SS**				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Thermal Shield Assembly Thermal shield flexures	Visual examination (VT-3)	100% of thermal shield flexures. See Figures 4-29 and 4-36 of MRP-227-A.	Not examined	
Comments: **To be examined during U2R34**				

Notes to Westinghouse Primary Components Table:

1. Examination acceptance criteria and expansion criteria for the Westinghouse components are in Table 5-3 of MRP-227-A.
2. A minimum of 75% of the total identified sample population must be examined.
3. A minimum of 75% of the total population (examined + unexamined), including coverage consistent with the Expansion criteria in Table 5-3 of MRP-227-A, must be examined for inspection credit.
4. A minimum of 75% of the total weld length (examined + unexamined), including coverage consistent with the Expansion criteria in Table 5-3 of MRP-227-A, must be examined from either the inner or outer diameter for inspection credit.
5. The lower core barrel flange weld may be alternatively designated as the core barrel-to-support plate weld in some Westinghouse plant designs.

Expansion Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Upper Internals Assembly Upper core plate	Enhanced visual examination (EVT-1)	100% of accessible surfaces (Note 2).	N/A	
Comments: **Not required to be examined -** CRGT lower flange welds – No recordable indications U2R33				
Lower Internals Assembly Lower support forging or castings	Enhanced visual examination (EVT-1)	100% of accessible surfaces (Note 2). See Figure 4-33 of MRP-227-A.	N/A	
Comments: **Not required to be examined -** CRGT lower flange welds – No recordable indications U2R33				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Barrel-former bolts	Volumetric examination (UT)	100% of +++accessible bolts. Accessibility may be limited by presence of thermal shields or neutron pads (Note 2). See Figure 4-23 of MRP-227-A.	N/A	
Comments: **Not required to be examined** – baffle-former bolts – results do not require expansion - U2R33				
Lower Support Assembly Lower support column bolts	Volumetric examination (UT)	100% of accessible bolts or as supported by plant-specific justification (Note 2). See Figures 4-32 and 4-33 of MRP-227-A.	N/A	
Comments: **Not required to be examined** – baffle-former bolts – results do not require expansion - U2R33				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Core Barrel Assembly Core barrel outlet nozzle welds	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 2). See Figure 4-22 of MRP-227-A.	N/A	
Comments: Upper core barrel flange weld to be examined U2R34 (Fall 2015)				
Core Barrel Assembly Upper and lower core barrel cylinder axial welds	Enhanced visual examination (EVT-1)	100% of one side of the accessible surfaces of the selected weld and adjacent base metal (Note 2). See Figure 4-22 of MRP-227-A.	N/A	
Comments: Upper and lower core barrel cylinder girth welds to be examined U2R34 (Fall 2015)				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Lower Support Assembly Lower support column bodies (non cast)	Enhanced visual examination (EVT-1)	100% of accessible surfaces (Note 2). See Figure 4-34 of MRP-227-A.	N/A	
Comments: Upper core barrel flange weld to be examined U2R34 (Fall 2015)				
Lower Support Assembly Lower support column bodies (cast)	Enhanced visual examination (EVT-1)	100% of accessible support columns (Note 2). See Figure 4-34 of MRP-227-A.	N/A	
Comments: **Not required to be examined -** CRGT lower flange welds – No recordable indications U2R33				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings (Note 1)
Bottom Mounted Instrumentation System Bottom-mounted instrumentation (BMI) column bodies	Visual examination (VT-3)	100% of BMI column bodies for which difficulty is detected during flux thimble insertion/withdrawal. See Figure 4-35 of MRP-227-A.	N/A	
Comments: **Not required to be examined -** CRGT lower flange welds – No recordable indications U2R33				

Notes to Westinghouse Expansion Component Table:

1. Examination acceptance criteria and expansion criteria for the Westinghouse components are in Table 5-3 of MRP-227-A .
2. A minimum of 75% coverage of the entire examination area or volume, or a minimum sample size of 75% of the total population of like components of the examination is required (including both the accessible and inaccessible portions).

Existing Programs Components

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Core Barrel Assembly Core barrel flange	Visual examination (VT-3) to determine general condition for excessive wear.	All accessible surfaces at specified frequency.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				
Upper Internals Assembly Upper support ring or skirt	Visual examination (VT-3)	All accessible surfaces at specified frequency.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Lower Internals Assembly Lower core plate XL lower core plate (Note 1)	Visual (VT-3) examination of the lower core plates to detect evidence of distortion and/or loss of bolt integrity.	All accessible surfaces at specified frequency.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				
Lower Internals Assembly Lower core plate XL lower core plate (Note 1)	Visual examination (VT-3)	All accessible surfaces at specified frequency.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Bottom Mounted Instrumentation System Flux thimble tubes	Surface examination (ET)	Eddy current surface examination as defined in plant response to IEB 88-09.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				
Alignment and Interfacing Components Clevis insert bolts	Visual examination (VT-3)	All accessible surfaces at specified frequency.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				

Item	Examination Method	Required Examination Coverage	Coverage Achieved	Examination Findings
Alignment and Interfacing Components Upper core plate alignment pins	Visual examination (VT-3)	All accessible surfaces at specified frequency.	N/A	
Comments: **ASME Section XI ISI Exam not performed during U2R33**				

Notes to Westinghouse Existing Programs Components Table:

1. XL = "Extra Long" referring to Westinghouse plants with 14-foot cores.