

**Inspection Flaw Acceptance
Criteria for D.C. Cook Unit 2
Reactor Vessel Internals
MRP-227-A Primary and
Expansion Components**



Westinghouse

WCAP-18133-NP
Revision 0

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Expansion Components**

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3.6 BAFFLE-FORMER ASSEMBLY: BAFFLE-EDGE BOLTS

3.6.1 Component Description

The 1,232 baffle-edge bolts (WCAP-18062-NP [6]) are threaded fasteners that provide baffle plate-to-baffle plate attachment along the interfacing seams among the plates that comprise the baffle-former assembly. The baffle-former assembly forms the interface between the core and the core barrel. Baffle-edge bolts are designated as an MRP-227-A “Primary” component. For reporting purposes, WCAP-17096-NP-A [3] identifies the baffle-edge bolts as Component Category ID: W-ID: 6. There are no expansion links for the baffle-edge bolts.

3.6.2 Location

Baffle-edge bolts are located along the full length of the baffle-former assembly where the plates overlap to form a corner. The baffle-edge bolts to be inspected are on the core-side seams joining the baffle plates. Figure 3-1 provides general orientation to locate the component in the reactor vessel. Component Inspection Detail (CID) AMP-CID-0060 in WCAP-18062-NP [6] contains a detailed sketch of the component locations.

3.6.3 MRP-227-A Inspection Recommendations

For the baffle-edge bolts, MRP-227-A [1] has designated a visual VT-3 inspection. A VT-3 inspection is intended for use in situations where the degradation is readily observable. It is meant to provide a general indication of condition; quantitative acceptance criteria are not generally required. In any particular recommendation for VT-3, it should be possible to identify the specific conditions of concern. The general relevant conditions for any VT-3 inspection are summarized in Section 2.2.1.

The CNP Unit 2 design includes both baffle-edge bolts and corner bracket bolts, which both fall under this MRP-227-A component. The corner bracket bolts are a type of baffle-edge bolt, and fasten a metal plate on the outside (barrel side) of the baffle-barrel assembly through the corner of the baffle plates. The edge bolts fasten the baffle plates together on the inside of the baffle-barrel assembly. Throughout this document, when referring to baffle-edge bolts, that term encompasses both the baffle-edge and corner bracket bolts.

In the event that a qualified inspection returns a conclusion of unacceptable results, additional consideration for acceptability may be assessed. Reviewing records is critical to assess if the condition is a result of the original installation. Improper or “less than perfect” alignment may be a contributor to the unacceptable inspection result, but could be easily resolved provided that it was not a result of in-service degradation. Relevant conditions specific to a VT-3 inspection of the CNP Unit 2 baffle- edge bolts are:

Baffle-Edge Bolt:

- Protruding head
- Cracked or broken head
- Missing head or bolt
- Worn or damaged head
- Improperly installed

Baffle-Edge Bolt Locking Device:

- Broken
- Damaged
- Missing
- Improperly Installed

MRP-227-A specifies the inspection interval. Foreign object search and retrieval activities and standard refueling activities would provide a measure of assurance between targeted inspections. Due to current operational experience and the lack of data on the rate of edge bolt failures, if any failures are observed, it is recommended that the inspection interval be evaluated and adjusted, as needed, to ensure continued safe operation.

3.6.4 Acceptance Criteria

Observation by a certified inspection of any off-normal relevant condition regarding any portion of an individual baffle-edge bolt of the accompanying locking device as a result of the VT-3 examination of the baffle-edge bolts is an unacceptable condition.

An acceptable affirmation of the component condition to support return to operation would require that there are no relevant conditions observed for the baffle-edge bolt and the accompanying locking device as a result of the inspection.

Figure 3-7 summarizes the evaluation process flow for the baffle-edge bolts.

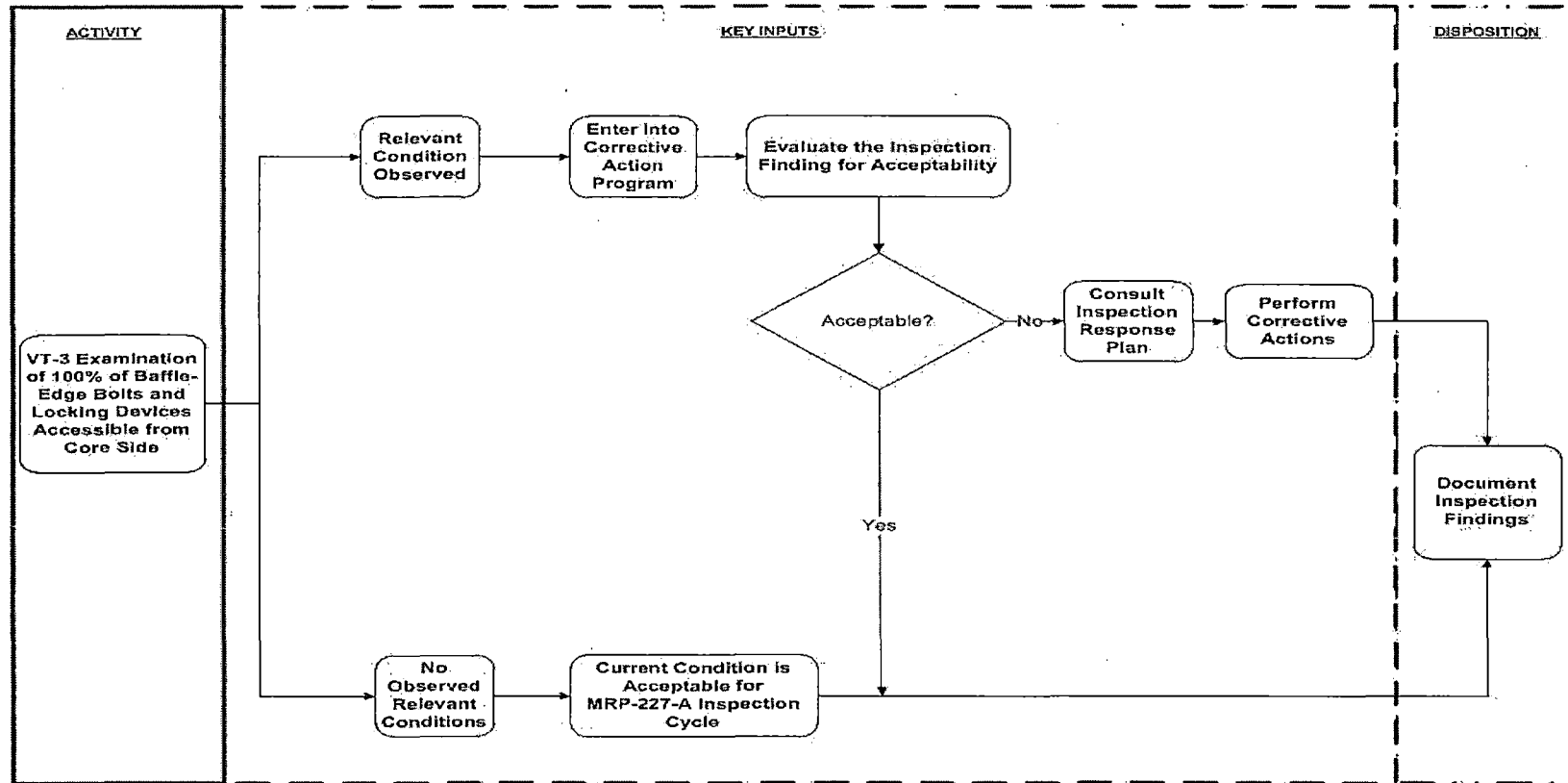


Figure 3-7: MRP-227-A CNP Unit 2 Reactor Internals Baffle-Edge Bolts Evaluation Flow Chart