



Additional Information – ANP-10338NP
AREA™ - ARCADIA® Rod Ejection
Accident

ANP-10338Q3NP
Revision 0

Topical Report

October 2017

AREVA Inc.

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SUMMARY

In September, AREVA notified the NRC by telephone of an issue impacting Topical Report ANP-10338NP, “AREA – ARCADIA® Rod Ejection Accident.” The issue was an inconsistency between the definition of nominal given in the text and the initial conditions for the sample problem results. The [

] as defined on page 7-2. Additionally, for the B&W plant in the Appendix B sample problems, the nominal cases from low power were incorrectly set to full power inlet conditions.

A clarification was added to tables A-7, B-7, and C-7 to indicate other conservatisms that are utilized in the methodology but are not reflected in the values of the table.

Updates are provided for all the changes noted above in the Topical Report. For the tables containing the “Measure of Conservatism for Limiting Result Cases” (Tables A-7, B-7, and C-7), the [

]. In general, there is a decrease in the measure of conservatism. There were two changes for the B&W plant initial conditions and [] on the limiting parameter is countered by the inlet temperature change. Therefore, the direction of the change to the nominal results depends upon which error condition dominates.

The nominal pressure calculations are not significantly impacted.

The limiting conditions of the methodology are not affected by these changes and the overall conclusions of the Topical Report remain valid.

MARKUP PAGES

- **Page 6-26**
- **Page A-8**
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Flexibility to perform discretionary updates is important to maintaining modern and robust computer codes. For instance, making updates and improvements to physical models and correlations (that have no more than a small impact on the results) is a necessary element to expand the robustness of the application. This flexibility provides AREVA the ability to maintain the AREA™ methodology so that it keeps pace with subsequent updates and improvements from new data or expanded assessments and to keep pace with potential changes in regulatory guidance.

It is foreseen that NRC approval may be granted for updates to approved codes and/or correlations that revise or extend a code's capabilities for use with AREA™. If future regulatory commitments are made relative to the approved codes supporting AREA™, the changes affecting AREA™ will be incorporated without further NRC notification or request for renewal/approval.

6.12 Level of Significance

The following definition is used to classify a significant update as it affects the results to the dependent variables listed in Section 7.1.1, when determining the impact of updates to computer codes, correlations or data libraries:

- [

]

The nominal and biased cases reach similar peak RCS pressures with the difference in peak pressures of less than [

[

]

]

**Table A-7 W 4-Loop, Measure of Conservatism for Limiting Result
Cases**



**Table A-10 W 4-Loop Plant Overpressure Results Summary (High
Pressurizer Pressure Trip Modeled)**



[

]

These two cases reach similar peak RCS pressures. [

|

]

[

]

Table B-7 Measure of Conservatism for Each of the Limiting Cases



**Table B-9 B&W plant Overpressure Results Summary (no high
pressure trip modeled)**

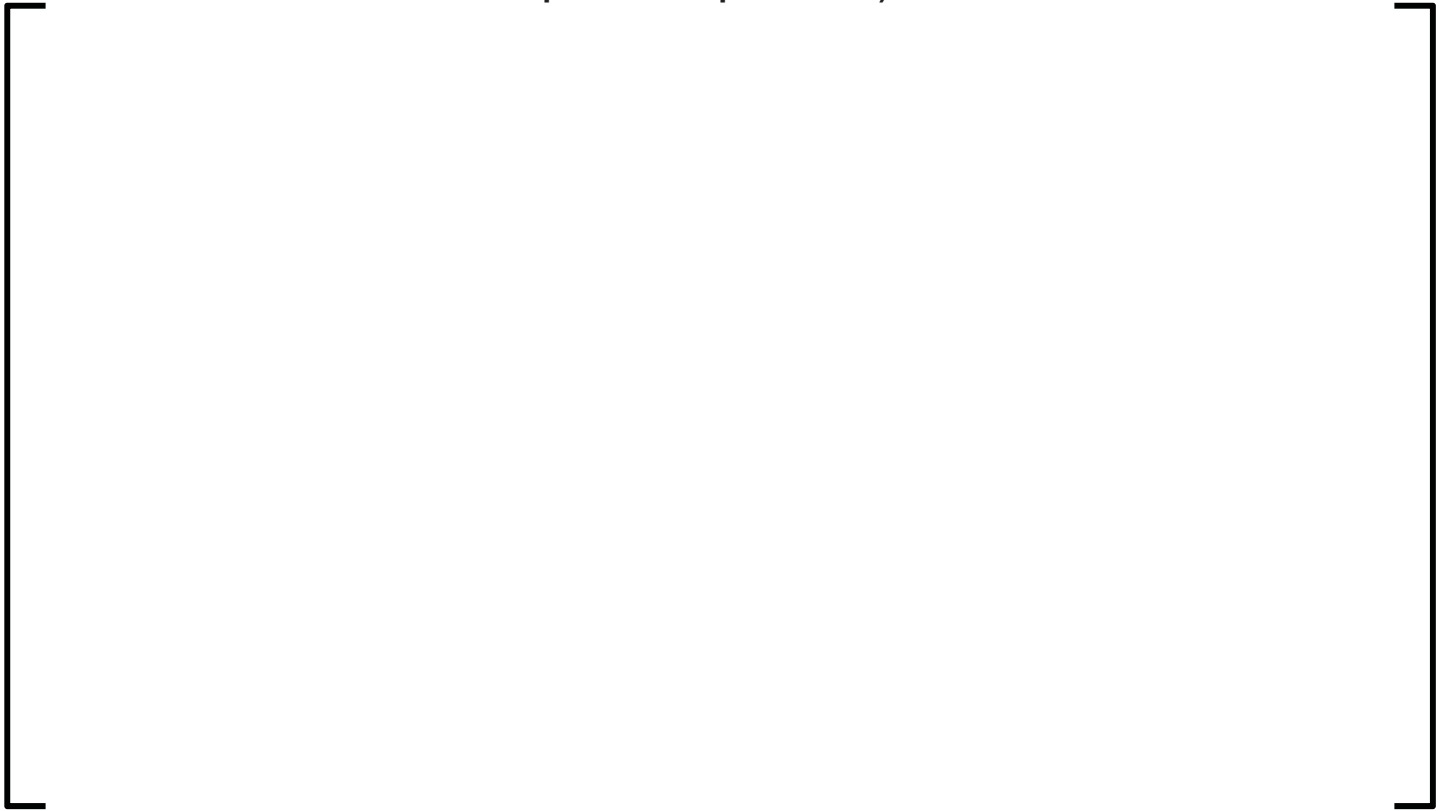
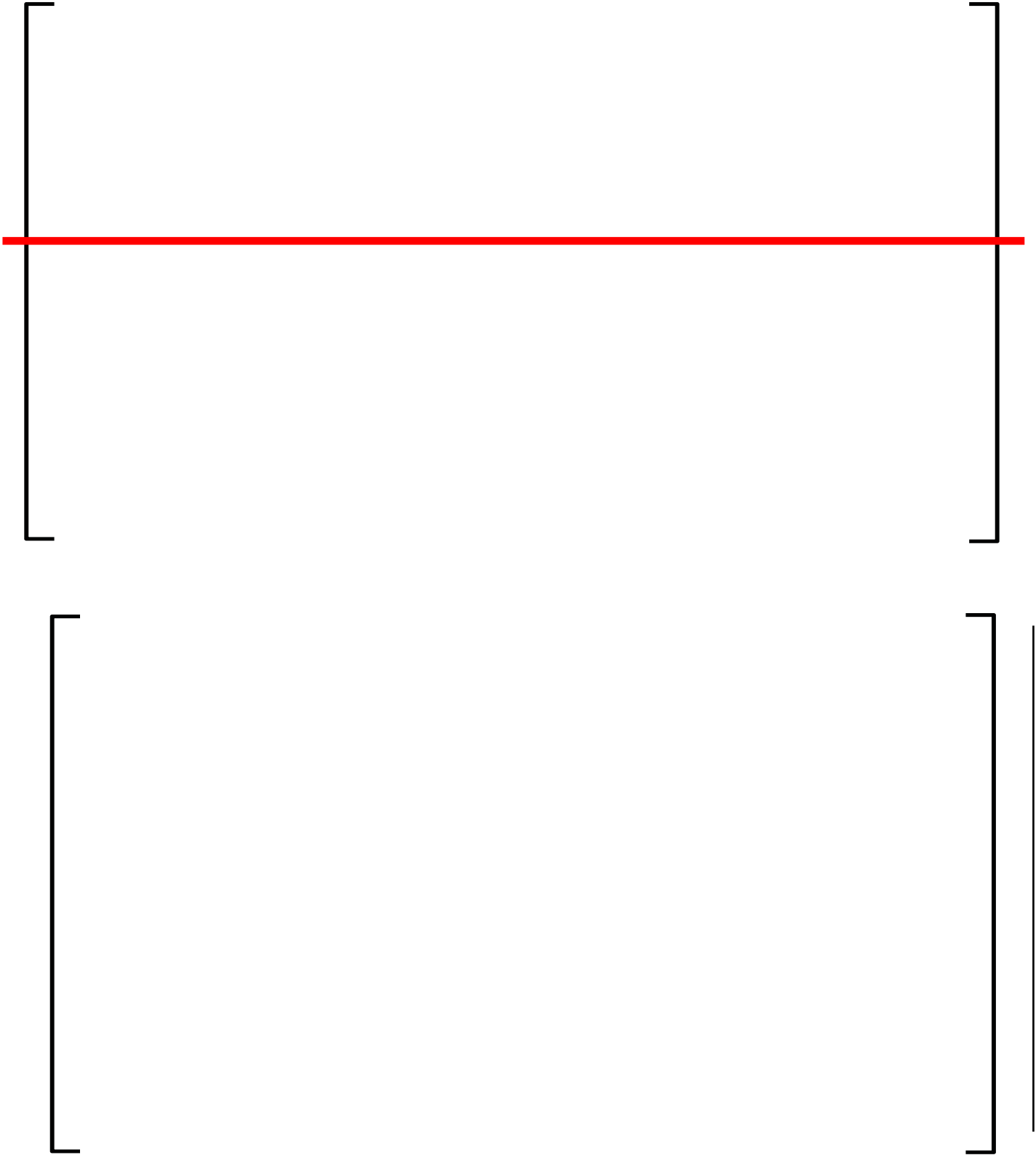



Figure B-10 Hot Leg Pressure Comparison



**Table C-7 CE Plant Measure of Level of Conservatism for Each
Limiting Parameter**



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