

Table of Changes for CR3MP SAR Revision 1

The CR3MP SAR has been updated to create Revision 1. Each change in the SAR document from Revision 0 to Revision 1 is marked by a revision bar on the right side of the page.

Section no. of change	Material changed	Reason for change
Glossary of Acronyms	Added “Reactor Coolant System”	RSI-1 response
1.1	Removed second license condition	The MNOP no longer exceeds the 5psi requirement of 10 CFR 71.85(b), therefore no need to test containment system
Figure 1.1-1	Depiction of CR3MP updated for reduced maximum HDCC thickness.	Update.
1.2.1	Change maximum thickness of HDCC in the RPV.	Update.
1.2.1.2	Add the constituents of the grout	Update per Section 1.2.2.2
1.2.2.2	Change maximum thickness of HDCC in the RPV and add the admixture content of the grout.	Update and provide input information for the radiolytic gas generation analysis.
1.2.2.3	Added a detailed description of the origin of the surface contamination value and added a reference to decay heat for hydrogen gas generation	RSI-1 response and support Section 4.2.1 edits.
Appendix 1.3.1	Added Reference #11	In order to support RSI-1 response.
Appendix 1.3.2	Updated SAR Drawings to Revision 1	Updated to support Section 2.3.1 changes
Figure 2.1-1	Depiction of CR3MP updated for reduced maximum HDCC thickness.	Update.
2.2.1	Change maximum thickness of HDCC in the RPV.	Update.
2.2.3	Added a cross-reference to the radiolytic gas generation analysis.	Updated to support Section 1.2.2.2 changes

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2.3.1	Revised CE requirement for material.	Allow greater flexibility for procurement while ensuring weldability and brittle fracture performance.
2.6.1.1	Revise the MNOP downward	Account for the reduced pressure calculated in Section 3.5.2.2.
2.6.1.3.1	Revise the MNOP downward, but conservatively perform containment boundary stress analysis using the higher pressure from Rev 0.	Account for the reduced pressure calculated in Section 3.5.2.2.
2.6.3	Correct typographical error in penultimate sentence. Updated MNOP to new value.	Correct typo and update.
2.7.4.1	Revise HAC fire case maximum pressure.	Account for the reduced pressure calculated in Section 3.5.2.
2.7.4.3	Revise HAC fire case maximum pressure and containment boundary stress calculation.	Account for the reduced pressure calculated in Section 3.5.2.2.
Appendix 2.12.2.1.2	Change maximum thickness of HDCC in the RPV.	Update.
Appendix 2.12.2.2.2	Correct typographical error in uniaxial strain limit formula.	Correct typo.
Appendix 2.12.2.4	Add justification for why the change in maximum HDCC thickness does not affect free drop analysis.	Update.
Appendix 2.12.2.6	Correct typographical error in 2 nd sentence of last paragraph.	Correct typo.
3.1.1	Change maximum thickness of HDCC in the RPV.	Update.
3.1.2	Updated text to reflect Section 5.2 changes	Update for clarity.

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3.3.2	Updated MNOP downward	Section 3.5.2.2 determines a lower NCT pressure, therefore MNOP is updated.
Appendix 3.5.2	Revise section to add radiolysis gas to pressure calculation and change porosity volume.	Total gas resulting from radiolysis has increased.
Appendix 3.5.2.1	Change maximum thickness of HDCC in the RPV. Add radiolysis gas to pressure calculation and change porosity volume.	Total gas resulting from radiolysis has increased.
Appendix 3.5.2.2	Update NCT, HAC and HAC Fire Peak pressures based on LDCC vs. HDCC volume ratio updates, adding radiolysis gas and changing porosity volume.	Update.
Appendix 3.5.2.3	Updated Numerical Example to correspond to updated values in Table 3.5-2.	Update.
4.2.1	Revise section to show that hydrogen does not reach 5% in one year.	Reflects the revised radiolysis evaluation in Chapter 5.
Appendix 4.5.1	Updated Reference 3 to the NRC Standard Review Plan	Most current NRC guidance incorporated.
5.1.1	2 nd paragraph, changed maximum thickness of HDCC in the RPV	Update.
5.2	3 rd to final paragraph in the section updated to move decay heat discussion to new final paragraph	To incorporate changes to Section 5.4.4
5.3.2	3 rd paragraph updated to indicate grout modeling as LDCC only for dose rate determinations	To distinguish model usage between the dose rates and the hydrogen generation calculations
5.4.4	Revised to update radiolytic gas generation rates	RSI-2 response

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Appendix 5.5.1	Formatted Reference 9 citation and added references 10-15	Maintain format with rest of SAR and more fully describe the reference and included those references to support Section 5.4.4 and Appendix 5.5.3.
Appendix 5.5.3	Added G-Value Calculation Appendix	Included to support Section 5.4.4 updates.
7.1.1	Reformatted last sentence	Editorial.
7.1.3	Updated 4 th bullet to match new Section 4.2.1 heading	Update.
8.1.1	Added sentence in 2 nd paragraph regarding HDCC thickness	Update.
8.1.3.2	Updated section to reflect the MNOP less than 5psi, does not require a pressure test.	Not required with the updated MNOP.
8.1.5.2	Added slurry density material test	Necessary to determine void volume in the LDCC for RSI-2 response