


MITSUBISHI HEAVY INDUSTRIES, LTD.
16-5, KONAN 2-CHOME, MINATO-KU
TOKYO, JAPAN

January 16, 2009

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Mr. Jeffrey A. Ciocco

Docket No. 52-021
MHI Ref: UAP-HF-09006

Subject: MHI's Response to US-APWR DCD RAI No. 111-932 Revision 0

Reference: 1) "Request for Additional Information No. 111-932 Revision 0, SRP Section: 06.02.01.02, Application Section: MUAP-07031 Report" dated December 3, 2008.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Response to Request for Additional Information No. 111-932 Revision 0."

Enclosed are the responses to seven RAIs contained within Reference 1. Of these RAIs, the following six RAIs will not be answered within this package.

06.0.01.02-3
06.0.01.02-4
06.0.01.02-7
06.0.01.02-8
06.0.01.02-10
06.0.01.02-11

MHI will need additional sensitivities or confirmatory analyses for the responses to these RAIs. These responses will be submitted by 3rd February.

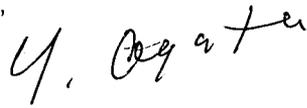
As indicated in the enclosed materials, this document contains information that MHI considers proprietary, and therefore should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential. A non-proprietary version of the document is also being submitted with the information identified as proprietary redacted and replaced by the designation "[]".

This letter includes a copy and a CD of the proprietary version (Enclosure 2 and 4), a copy and a CD of the non-proprietary version (Enclosure 3 and 5), and the Affidavit of Yoshiki Ogata (Enclosure 1) which identifies the reasons MHI respectfully requests that all materials designated as "Proprietary" in Enclosure 2 be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4).

Please contact Dr. C. Keith Paulson, Senior Technical Manager, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of the submittals. His contact information is below.

DOB
NRO

Sincerely,



Yoshiki Ogata
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

Enclosure:

- 1 - Affidavit of Yoshiki Ogata
- 2 - Response to Request for Additional Information No. 111-932 Revision 0 (proprietary)
- 3 - Response to Request for Additional Information No. 111-932 Revision 0 (non-proprietary)
- 4 - CD 1:" Attached digital file for Response to Request of QUESTION NO. : 06.02.01.02-14 (proprietary)"
- 5 - CD 2:" Attached digital file for Response to Request of QUESTION NO. : 06.02.01.02-14 (non-proprietary)"

The file contained in CD is listed in Attachment 1 and 2 hereto.

CC: J. A. Ciocco
C. K. Paulson

Contact Information

C. Keith Paulson, Senior Technical Manager
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ENCLOSURE 1

Docket No. 52-021
MHI Ref: UAP-HF-09006

MITSUBISHI HEAVY INDUSTRIES, LTD.

AFFIDAVIT

I, Yoshiki Ogata, state as follows:

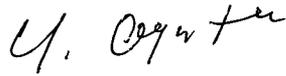
1. I am General Manager, APWR Promoting Department, of Mitsubishi Heavy Industries, LTD ("MHI"), and have been delegated the function of reviewing MHI's US-APWR documentation to determine whether it contains information that should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential.
2. In accordance with my responsibilities, I have reviewed the enclosed document entitled "Response to Request for Additional Information No. 111-932 Revision 0" dated January 2009, and have determined that portions of the document contain proprietary information that should be withheld from public disclosure. Those pages containing proprietary information are identified with the label "Proprietary" on the top of the page and the proprietary information has been bracketed with an open and closed bracket as shown here "[]". The first page of the document indicates that all information identified as "Proprietary" should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4).
3. The information identified as proprietary in the enclosed document has in the past been, and will continue to be, held in confidence by MHI and its disclosure outside the company is limited to regulatory bodies, customers and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and is always subject to suitable measures to protect it from unauthorized use or disclosure.
4. The basis for holding the referenced information confidential is that it describes the unique design of the safety analysis and the general arrangement related to the US-APWR specific design, developed by MHI and not used in the exact form by any of MHI's competitors. This information was developed at significant cost to MHI, since it required the performance of research and development and the performance of detailed hardware design and software development extending over several years.
5. The referenced information is being furnished to the Nuclear Regulatory Commission ("NRC") in confidence and solely for the purpose of information to the NRC staff.
6. The referenced information is not available in public sources and could not be gathered readily from other publicly available information. Other than through the provisions in paragraph 3 above, MHI knows of no way the information could be lawfully acquired by organizations or individuals outside of MHI.
7. Public disclosure of the referenced information would assist competitors of MH in their design of new nuclear power plants without incurring the costs or risks associated with the design and testing of the subject systems. Therefore, disclosure of the information

contained in the referenced document would have the following negative impacts on the competitive position of MH in the U.S. nuclear plant market:

- A. Loss of competitive advantage due to the costs associated with development of the unique plant design of the safety analysis and the general arrangement. Providing public access to such information permits competitors to duplicate or mimic the methodology without incurring the associated costs.
- B. Loss of competitive advantage of the US-APWR created by benefits of enhanced plant safety, and reduced operation and maintenance costs. .

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information and belief.

Executed on this 16th day of January, 2009.



Yoshiki Ogata,
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

Enclosure 3

UAP-HF-09006
Docket Number 52-021

Response to Request for Additional Information
No. 111-932 Revision 0

January 2009
(Non-Proprietary)

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

1/16/2009

**US-APWR Design Certification
Mitsubishi Heavy Industries
Docket No.52-021**

RAI NO.: NO.111-932 REVISION 0
SRP SECTION: 06.02.01.02 – Subcompartment Analysis
APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-2

MUAP-07031 report: Although sensitivity of the results to time step variation in the cases presented was small, many variables impact correct time step selection. Please, include in the DCD additional justification and/or discussion regarding the selection of the time steps for the specific limiting cases presented in the DCD.

ANSWER:

The sensitivity analyses were performed to confirm that the appropriate time step was selected for the US-APWR subcompartment analyses. The time step selection of the base cases (presented in MUAP-07031) and the sensitivity analyses are shown in Table 1. The limiting time steps for the sensitivity analyses are a half of those for the base cases.

The results of the sensitivity analysis compared with the base case for each subcompartment analysis are shown in Figure 1 to 3. The impact of the time step selection to the result is sufficiently small. It was confirmed that the appropriate time step was selected for US-APWR subcompartment analyses.

The base case results for each subcompartment will be revised with the following modifications.

- Modification of mass and energy release evaluation for secondary system break corresponding to RAI-06.02.01.02-7 and 06.02.01.02-11
- Minor change of mass and energy release evaluation analyses (M-REALP5) for primary system breaks
- Modification of incorrect setting for GOTHIC analysis option
- Modification of GOTHIC nodalization scheme for SG compartment

- Modification of geometric and hydraulic parameters for nodes and vent paths of SG compartment and pressurizer compartment with considering the thermal insulator for the components and piping

The modified results of the base cases and the sensitivity analysis in the time step selection for each modified case will be provided by 18th February.

Table 1 time step selection for subcompartment analysis

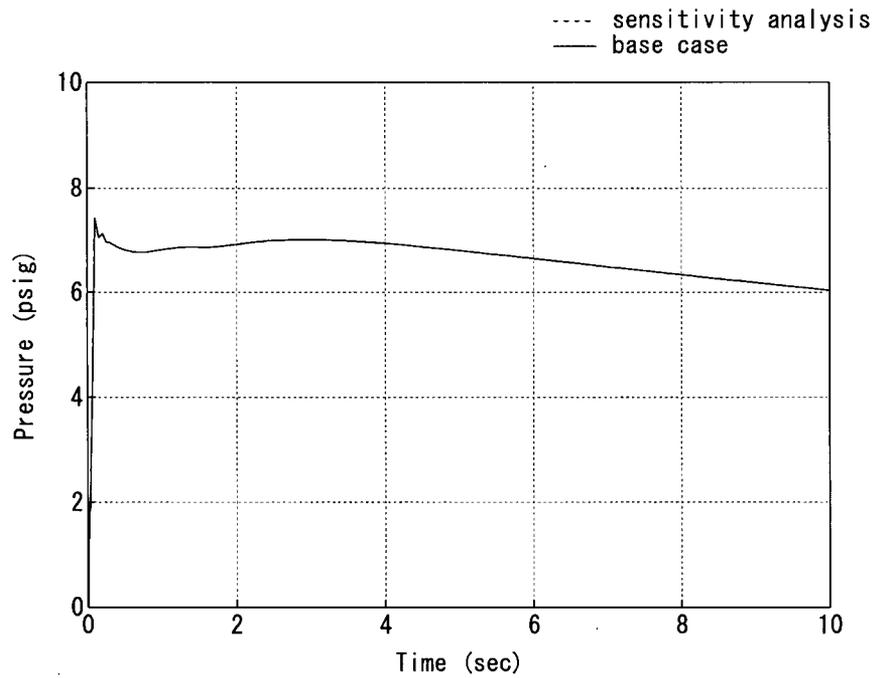


Figure 1 Time step sensitivity analysis for reactor cavity compartment
Pressure transient at peak pressure node (V50)

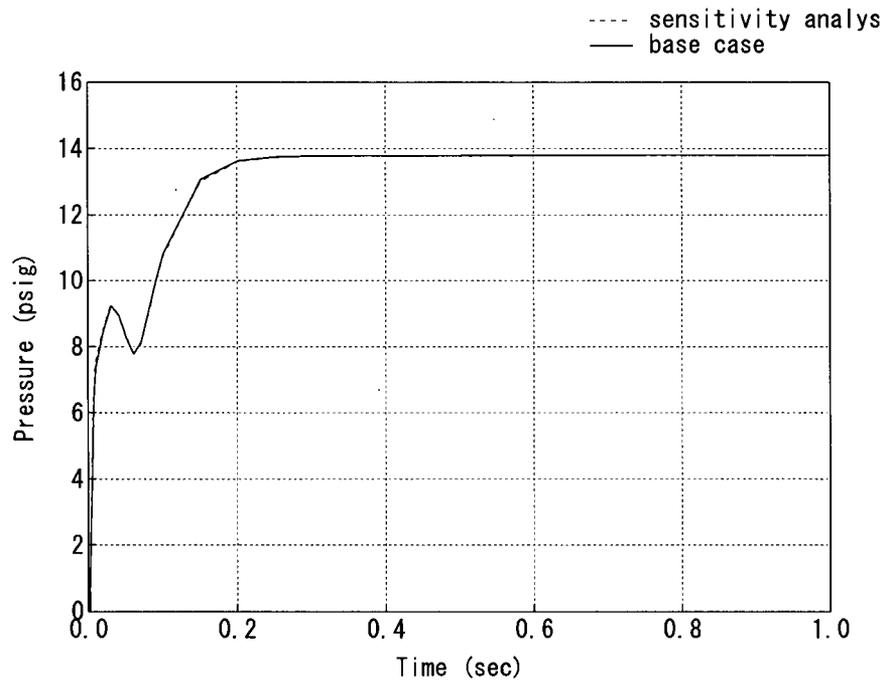


Figure 2 Time step sensitivity analysis for SG compartment

Pressure transient at peak pressure node (V55)

(Feedwater line break, Full power operating condition)

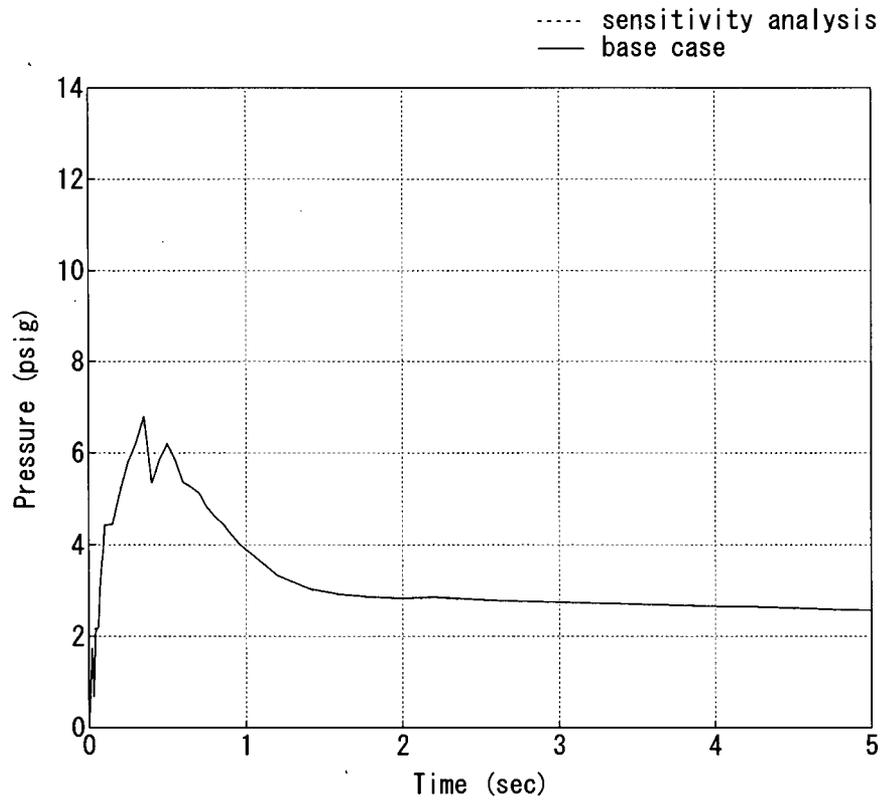


Figure 3 Time step sensitivity analysis for Pressurizer compartment
Pressure transient at peak pressure node (V3)
(Pressurizer spray line break)

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

1/16/2009

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Mitsubishi Heavy Industries
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RAI NO.: NO.111-932 REVISION 0
SRP SECTION: 06.02.01.02 – Subcompartment Analysis
APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-5

Revise Table 3-1 in MUAP-07031 report by including quantitative rationale for each line that was eliminated from consideration. Lines in the compartment that were eliminated because of LBB considerations also need to be included in the table.

ANSWER:

LBB considerations are added in Table 3-1.
Revised Table 3-1 is provided in Appendix.

Impact on DCD

Table 3-1 is revised.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

Appendix

**Table 3-1 Steam Generator Subcompartment and Pressurizer Subcompartment Break Line Condition
(Sheet 1 of 2)**

Subcompartment	Break Line	Line Spec	Press. psi	Temp. °F	fluid	LBB considerations
Steam Generator Subcompartment	Main Coolant Pipe-Hot Leg	31ID-RC-2505R	2235	617.0	Subcooled Water	Leak
	Main Coolant Pipe-Cold Leg	31ID-RC-2505R	2235	550.6	Subcooled Water	Leak
	Main Coolant Pipe-Cross-over Leg	31ID-RC-2505R	2235	550.6	Subcooled Water	Leak
	Pressurizer Surge Line	16-RC-2501R	2235	653.0	Subcooled Water	Leak
	Accumulator Injection Line	14-RC-2501R	2235	550.6	Subcooled Water	Leak
		14-SI-2501R	2235	550.6	Subcooled Water	Leak
		14-SI-2511R	2235	120.0	Subcooled Water	Leak
	RHR Pump Inlet Line	10-RC-2501R	2235	617.0	Subcooled Water	Break
	RHR Pump Outlet Line	8-RC-2501R	2235	550.6	Subcooled Water	Break
	Direct Vessel Injection Line	4-RC-2501R	2235	550.6	Subcooled Water	Break
	SI High Head Injection Line	4-RC-2501R	2235	617.0	Subcooled Water	Break
	SI Emergency Letdown Line	2-RC-2501R	2235	617.0	Subcooled Water	Break
	Pressurizer Spray Line	6-RC-2501R	2235	550.6	Subcooled Water	Break
	Loop Drain Line	2-RC-2501R	2235	550.6	Subcooled Water	Break
	Charging Line	4-RC-2501R	2235	550.6	Subcooled Water	Break
		4-CS-2501R	2235	550.6	Subcooled Water	Break
		4-CS-2561R	2235	464.0	Subcooled Water	Break
	Letdown Line	3-RC-2501R	2235	550.6	Subcooled Water	Break
		3-CS-2501R	2235	550.6	Subcooled Water	Break
		3-CS-2561R	2235	550.6	Subcooled Water	Break
		3-CS-601R	350	269.1	Subcooled Water	Break
		4-CS-601R	350	115.0	Subcooled Water	Break
	RCP Seal Water Injection Line	1 1/2-CS-2501R	2600	130.0	Subcooled Water	Break
		1 1/2-CS-2511R	2600	130.0	Subcooled Water	Break
	Feedwater Line	16-FW-1525N	1185	568.0	Saturated Water	Break
	Main Steam Line	32-MS-1532N	907	535.0	Steam	Leak
	SG Blowdown Line	3-BD-1532N	907	535.0	Steam	Break
4-BD-1532N		907	535.0	Steam	Break	

Table 3-1 Steam Generator Subcompartment and Pressurizer Subcompartment Break Line Condition
(Sheet 2 of 2)

Subcompartment	Break Line	Line Spec	Press. psi	Temp. °F	fluid	LBB considerations
Subcompartment under Pressurizer Subcompartment	Pressurizer Surge Line	16-RC-2501R	2235	653.0	Subcooled Water	Leak
Pressurizer Subcompartment	Pressurizer Spray Line	6-RC-2501R	2235	550.6	Subcooled Water	Break
	Pressurizer Auxiliary Spray Line	3-RC-2501R	2235	550.6	Subcooled Water	Break
	Pressurizer Safety Valve Inlet Line	6-RC-2501R	2235	653.0	Subcooled Water	Break
	Pressurizer Safety Depressurization Line	8-RC-2501R	2235	653.0	Steam Saturated Water	Break
		6-RC-2501R	2235	653.0		Break
		4-RC-2501R	2235	653.0		Break
3-RC-2501R		2235	653.0	Break		

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

1/16/2009

**US-APWR Design Certification
Mitsubishi Heavy Industries
Docket No.52-021**

RAI NO.: NO.111-932 REVISION 0
SRP SECTION: 06.02.01.02 – Subcompartment Analysis
APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-6

MUAP-07031 report Section 3.1.2 says the subcompartment analysis for the SG compartment is performed assuming a 150 mm (6-inch) diameter break of the pressurizer spray line or a 400 mm (16-inch) diameter feedwater pipe break. Results of the pressurizer spray line are not discussed in this report or represented in Table 3-1. Please provide results for the pressurizer spray line, or provide appropriate the reference if it is addressed in DCD Section 6.3.2.

ANSWER:

The description of the postulated break in Section 3.1.2 of MUAP-07031 is not correct. The analysis assuming the pressurizer spray line break (6 inch diameter) was not performed. Because the break diameter for the RHR pump outlet line and inlet line (8 inch and 10 inch, respectively) are larger than that for the pressurizer spray line (6 inch). The results for the RHR pump outlet or inlet line break envelop the result for the pressurizer spray line break.

The description in Section 3.1.2 will be corrected in the next revision of MUAP-07031.

Impact on DCD

The description of Section 3.1.2 in MUAP-07031 on page 3-1 will be corrected as follows.

The subcompartment analysis is performed by assuming that a 10-inch-diameter break of the RHR pump inlet line or an 8-inch-diameter break of the RHR pump outlet line connected to the reactor coolant pipe or a 16-inch-feedwater pipe (EL. 90 ft.- 9 in.), as the worst case.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

1/16/2009

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SRP SECTION: 06.02.01.02 – Subcompartment Analysis
APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-9

MUAP-07031 report: Vent path geometries are not provided in sufficient detail to allow checks to be made on loss coefficient assumptions and calculations. Additional information is requested on these geometries to allow these checks, and so that models can be developed for confirmatory calculations. Since the SG compartment break is the most limiting, vent path geometries used in this analysis are requested.

ANSWER:

The detailed information of vent path geometries for SG compartment to assume the loss coefficient is provided in Appendix.

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

Appendix

Vent path geometries for Steam Generator compartment

06.02.01.02-9-3



Figure-1(1/6) Vent path geometries of vertical direction for SG compartment

06.02.01.02-9-4



Figure-1(2/6) Vent path geometries of vertical direction for SG compartment

06.02.01.02-9-5



Figure-1(3/6) Vent path geometries of vertical direction for SG compartment

06.02.01.02-9-6



Figure-1(4/6) Vent path geometries of vertical direction for SG compartment

06.02.01.02-9-7

Figure-1(5/6) Vent path geometries of vertical direction for SG compartment

06.02.01.02-9-8



Figure-1(6/6) Vent path geometries of vertical direction for SG compartment

06.02.01.02-9-9



Figure-2(1/4) Vent path geometries of horizontal direction for SG compartment

06.02.01.02-9-10

Figure-2(1/4) Vent path geometries of horizontal direction for SG compartment

06.02.01.02-9-11



Figure-2(3/4) Vent path geometries of horizontal direction for SG compartment

06.02.01.02-9-12



Figure-2(4/4) Vent path geometries of horizontal direction for SG compartment

06.02.01.02-9-13



Figure-3(1/2) Leak path geometries for SG compartment

06.02.01.02-9-14



Figure-3(2/2) Leak path geometries for SG compartment

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

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SRP SECTION: 06.02.01.02 – Subcompartment Analysis
APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-12

MUAP-07031 report: Details for vent path geometries are not sufficient to perform confirmatory calculation. Please provide details of vent path geometries used in the pressurizer subcompartment analysis.

ANSWER:

The detailed information of vent path geometries for pressurizer compartment to assume the loss coefficient is provided in Appendix.

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

Appendix

Vent path geometries for Pressurizer compartment

06.02.01.02-12-3



Figure-1(1/2) Vent path geometries of vertical direction for pressurizer compartment

06.02.01.02-12-4



Figure-1(2/2) Vent path geometries of vertical direction for pressurizer compartment

06.02.01.02-12-5



Figure-2 Vent path geometries of horizontal direction for pressurizer compartment

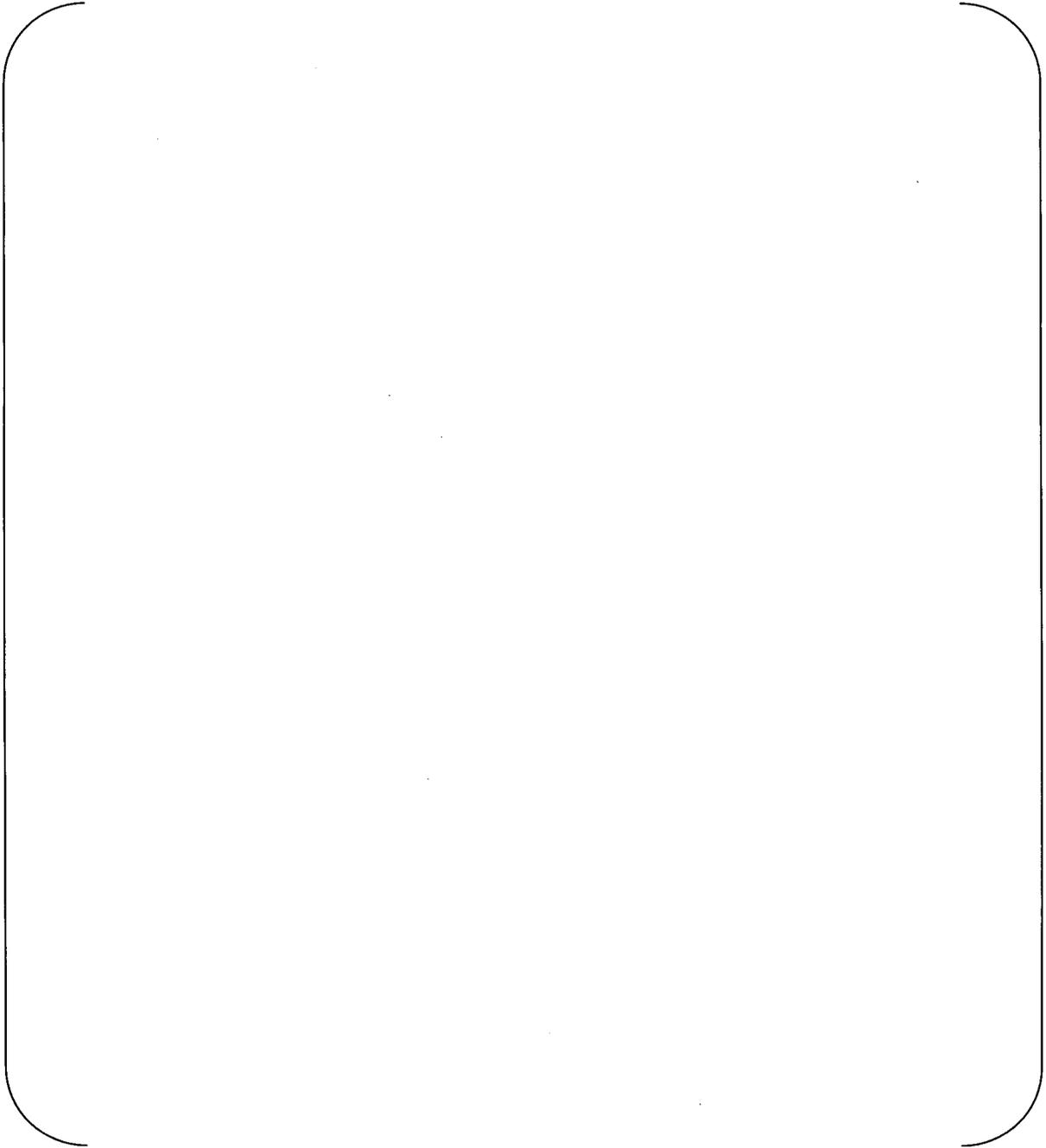


Figure-3 Leak path geometries for pressurizer compartment

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

1/16/2009

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APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-13

MUAP-07031 report: Section 6.4.1 include conclusion that nodalization is sufficient to calculate peak pressure differences. However, the figures 6.4-14 and 6.4-15 only show one curve that is not labeled. Please, provide a comparison plots of pressures for each nodalization scheme and selected volume to clarify potential misunderstanding.

ANSWER:

Figure 1 and 2 shows the result of the sensitivity analysis of nodalization scheme in comparison with the base case. Figure 1 shows the result of PRZ spray line break case and figure 2 shows the result of PRZ relief line break case. The pressure response for the sensitivity analysis case is similar to that for the base case. It was confirmed that base case nodalization is sufficient to calculate peak pressure differences for postulated pipe breaks inside the pressurizer compartment.

The figures will be modified in the next revision of the MUAP-07031.

The base case results will be modified in accordance with the modification of base case analysis described in the response to RAI-06.02.01.02-2.

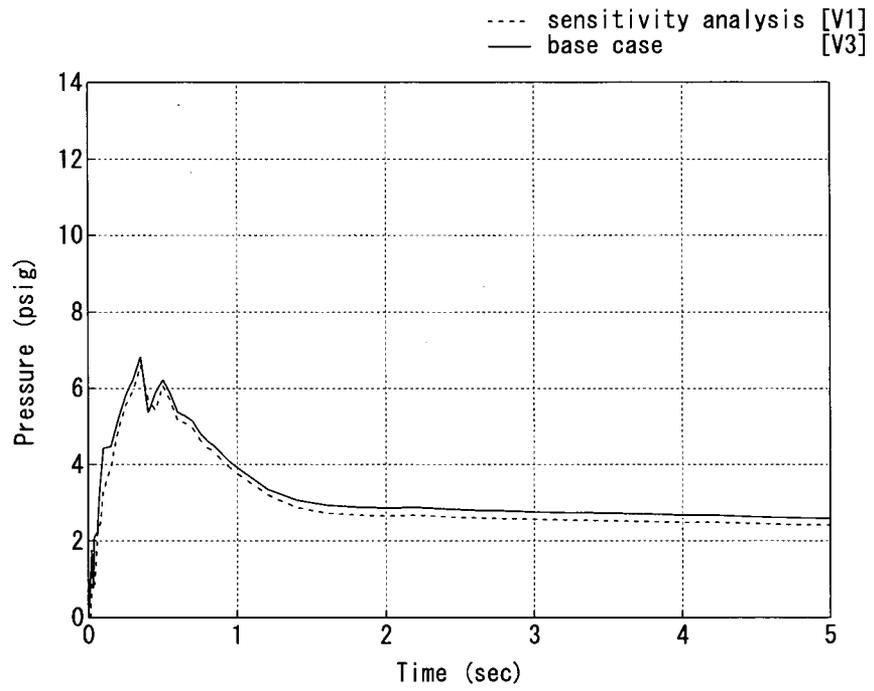


Figure 1 Result of Nodalization Sensitivity Analysis
(PRZ Spray Line Break)

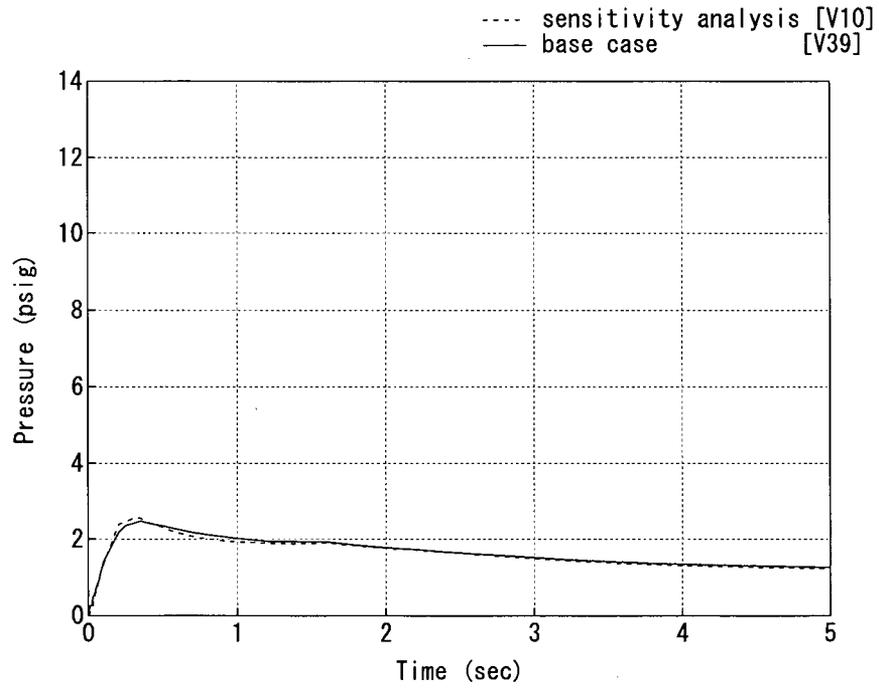


Figure 2 Result of Nodalization Sensitivity Analysis
(PRZ Relief Line Break)

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

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1/16/2009

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APPLICATION SECTION: MUAP-07031 Report
DATE OF RAI ISSUE: 12/3/2008

QUESTION NO. : 06.02.01.02-14

MUAP-07031 report: Sufficient information needs to be provided by Mitsubishi allowing staff to perform independent evaluation of both the subcompartment analysis itself as well as the mass and energy release calculations used in the subcompartment analysis. Specifically, staff selected SG compartment and reactor cavity cases to perform confirmatory calculation. Please, provide the masses and energy release and nodalization details used in Mitsubishi analyses of the two cases.

ANSWER:

The necessary information to perform the subcompartment pressure analysis for SG compartment is attached in Appendix of the response to RAI-06.02.01.02-9. And that of reactor cavity is attached in Appendix of this response.

The input deck of M-RELAP5 for DVI (Direct Vessel injection) break mass and energy release used for reactor cavity subcompartment analysis is provided as digital file. The DVI mass and energy release analysis was modified from the case presented in MUAP-07031 to obtain the conservative mass and energy release results (See response to RAI-06.02.01.02-2). Attached input deck is the modified version. The result of modified mass and energy release analysis for DVI break is shown in Figure 1 in comparison with previous result (presented in MUAP-07031).

The mass and energy release evaluation in the case of FLB (Feedwater Line Break) for SG compartment analysis is modified corresponding to RAI-06.02.01.02-7 and

06.02.01.02-11 (See response to RAI-06.02.01.02-2). The detail of modified mass and energy release analysis will be provided by 3rd February.

The input deck of M-RELAP5 for the mass and energy release analyses in the case of RHR (Residual Heat Removable) pump inlet line and outlet line breaks used in SG compartment analysis are provided as digital files. The mass and energy analyses for primary system break performed by the M-RELAP5 code were modified (See response to RAI-06.02.01.02-2). The attached input decks of M-RELAP5 are modified version. The results of mass and energy analyses compared with the previous results (presented in MUAP-07031) for these breaks are shown in Figure 2 and 3.

The revised subcompartment analyses using modified mass and energy release data for reactor cavity compartment and SG compartment will be provided by 3rd February.

Contents of attached CD 1

1. DVI break transient input deck
: dvi.i (Proprietary)
2. RHR inlet line break transient input deck
: RHR_pump_inlet(HLG).i (Proprietary)
3. RHR outlet line break transient input deck
: RHR_pump_outlet(CLG).i (Proprietary)

Contents of attached CD 2

1. Result of DVI break mass and energy release analysis
: ME Data for dvi.txt (Non-Proprietary)
2. Result of RHR pump inlet line break mass and energy release analysis
: ME Data for RHR_inlet(HLG).txt (Non-Proprietary)
3. Result of RHR pump outlet line break mass and energy release analysis
: ME Data for RHR_outlet(CLG).txt (Non-Proprietary)

Note

The input deck of steady state is same as small break LOCA, and the input deck was provided in UAP-HF-08081.

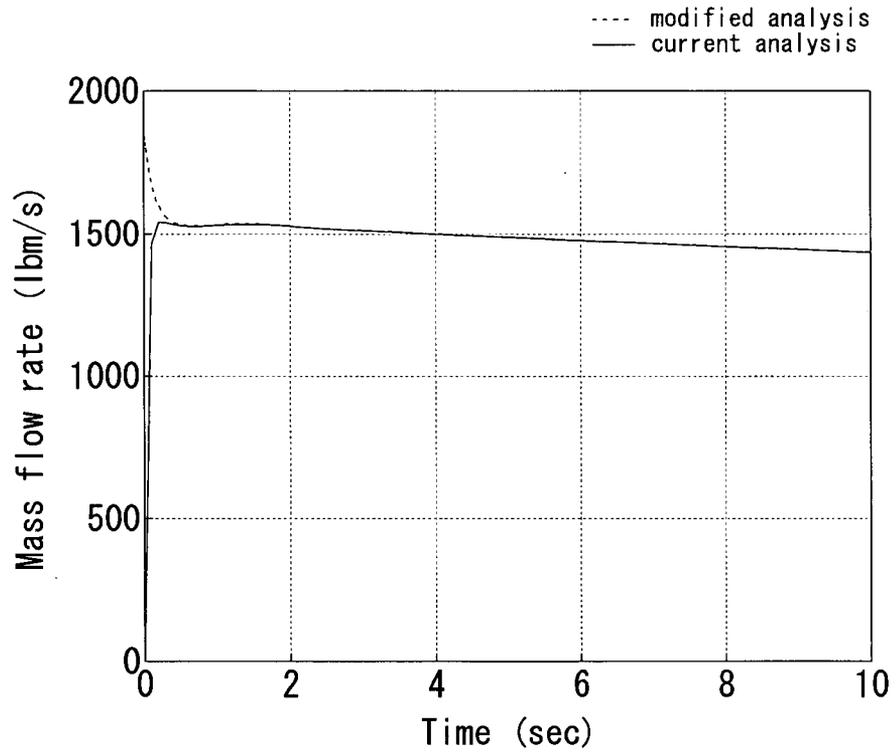


Figure 1 Short term mass and energy release data for reactor cavity analysis (1/2)
Direct vessel injection line break

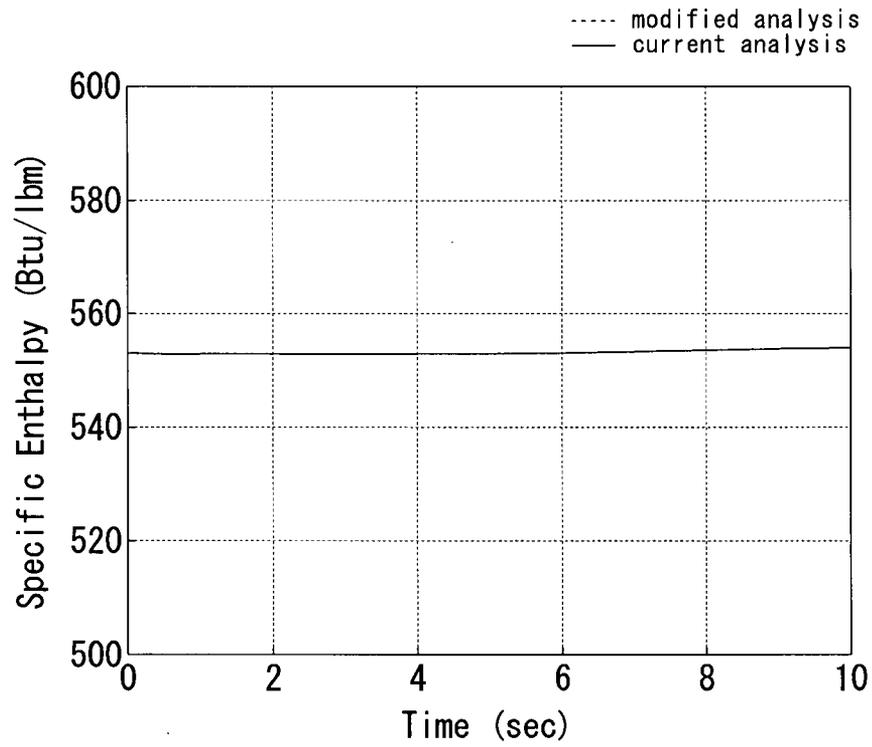


Figure 1 Short term mass and energy release data for reactor cavity analysis (2/2)
Direct vessel injection line break

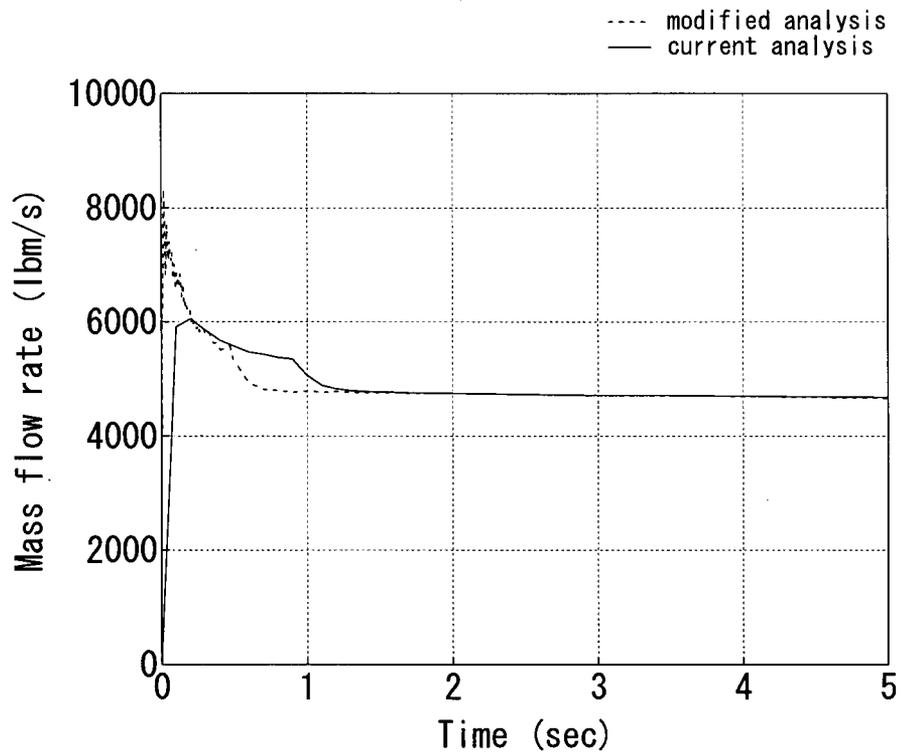


Figure 2 Short term mass and energy release data for SG compartment analysis (1/2)
RHR pump inlet line break

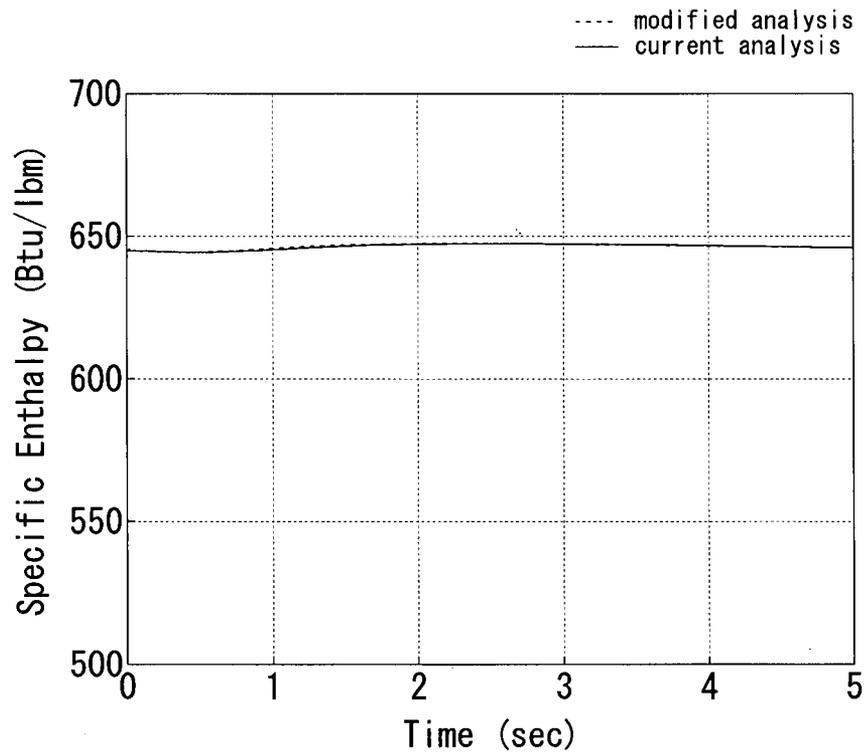


Figure 2 Short term mass and energy release data for SG compartment analysis (2/2)
RHR pump inlet line break

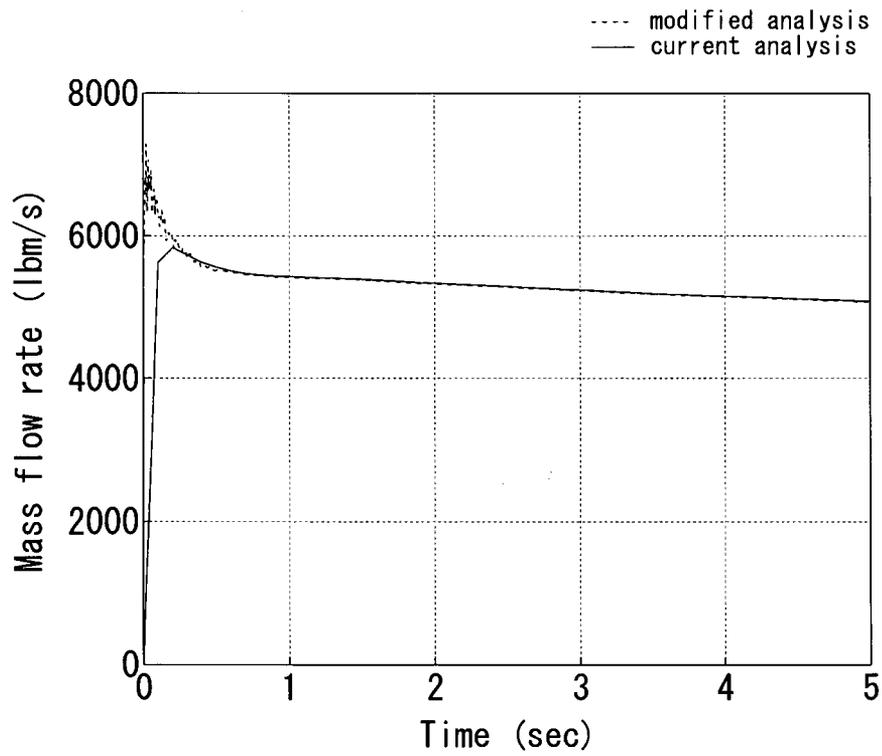


Figure 3 Short term mass and energy release data for SG compartment analysis (1/2)
RHR pump outlet line break

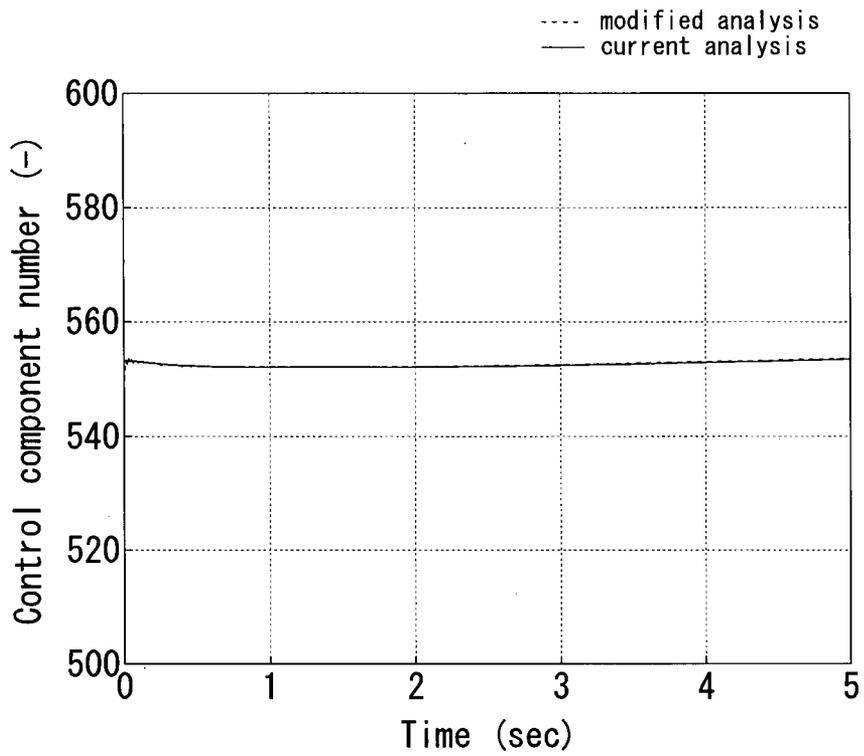


Figure 3 Short term mass and energy release data for SG compartment analysis (2/2)
RHR pump outlet line break

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

Appendix

Vent path geometries for reactor cavity

06.02.01.02-14-11



Figure-1 Vent path geometries of vertical direction for reactor cavity

06.02.01.02-14-12



Figure-2(1/4) Vent path geometries of horizontal direction for reactor cavity

06.02.01.02-14-13



Figure-2(2/4) Vent path geometries of horizontal direction for reactor cavity

06.02.01.02-14-14



Figure-2(3/4) Vent path geometries of horizontal direction for reactor cavity

06.02.01.02-14-15



Figure-2(4/4) Vent path geometries of horizontal direction for reactor cavity

06.02.01.02-14-16



Figure-3(1/5) Vent path geometries of vertical direction for reactor cavity

06.02.01.02-14-17



Figure-3(2/5) Vent path geometries of vertical direction for reactor cavity

06.02.01.02-14-18

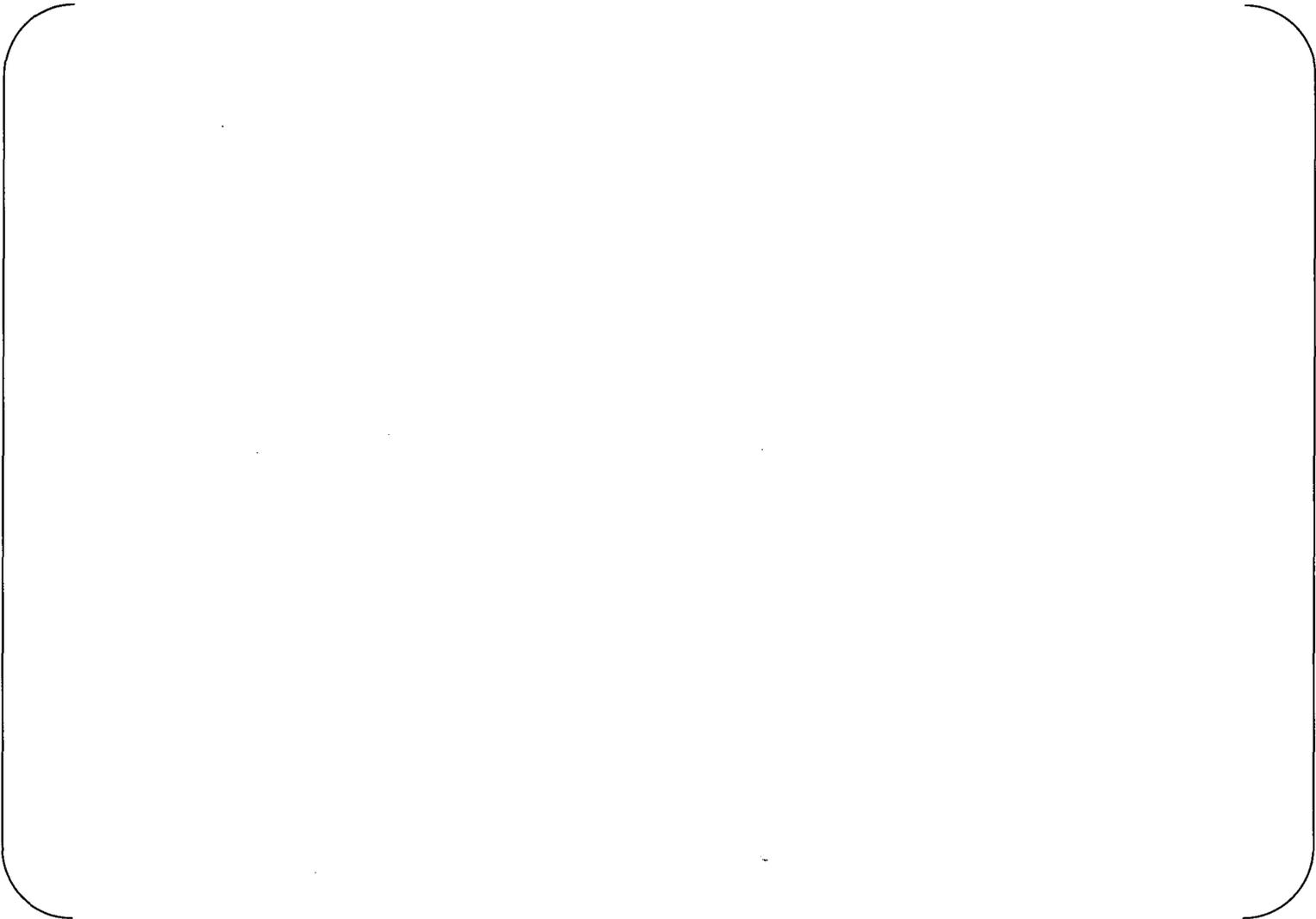


Figure-3(3/5) Vent path geometries of vertical direction for reactor cavity

06.02.01.02-14-19

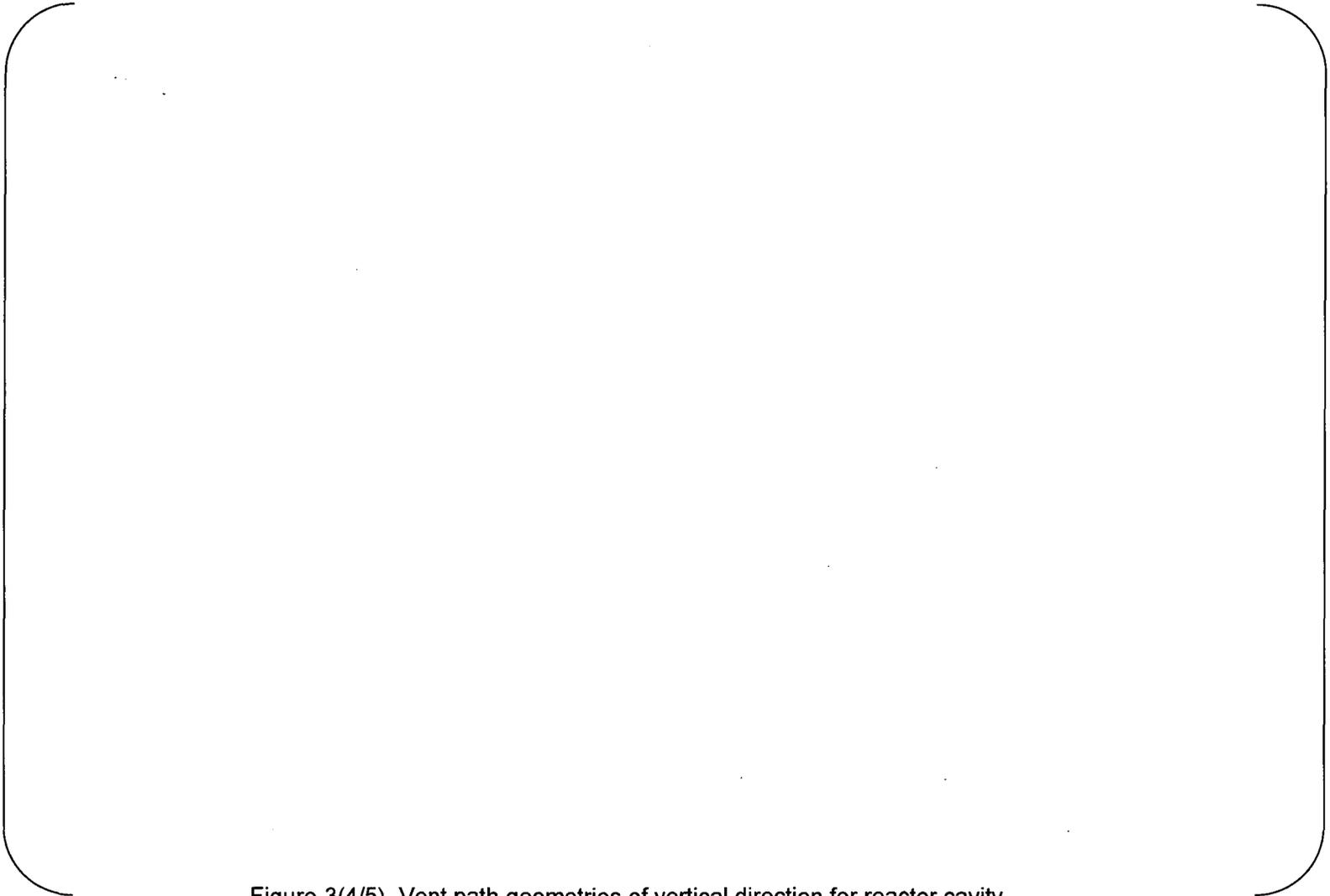


Figure-3(4/5) Vent path geometries of vertical direction for reactor cavity

06.02.01.02-14-20



Figure-3(5/5) Vent path geometries of vertical direction for reactor cavity

06.02.01.02-14-21



Figure-4 Vent path geometries of horizontal direction for reactor cavity

ATTACHMENT 1

FILE CONTAINED IN CD 1

CD 1: " Attached digital file for Response to Request of QUESTION NO. : 06.02.01.02-14 (proprietary)"

Contents of CD

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
dvi.i	20KB	Proprietary
RHR_pump_inlet(HLG).i	20KB	Proprietary
RHR_pump_outlet(CLG).i	20KB	Proprietary

ATTACHMENT 2

FILE CONTAINED IN CD 2

CD 2: " Attached digital file for Response to Request of QUESTION NO. : 06.02.01.02-14 (non-proprietary)"

Contents of CD

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
ME Data for dvi.txt	14KB	Non-Proprietary
ME Data for RHR_inlet(HLG).txt	14KB	Non-Proprietary
ME Data for RHR_outlet(CLG).txt	14KB	Non-Proprietary