MITSUBISHI HEAVY INDUSTRIES, LTD.

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TOKYO, JAPAN

March 31, 2012

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-12xxx

Subject: Final Closure Plan for US-APWR Seismic and Structural Analyses

References:
(1) Letter (ML11136A235 / MHI Ref: UAP-HF-11134) from Y. Ogata (MHI) to U.S. NRC, "Revised Completion Plan for US-APWR Seismic and Structural Analyses" dated May 12, 2011
(2) Letter (ML110240150) from D. Matthews (NRC) to Y. Ogata (MHI), "Schedule Change for the United States – Advanced Pressurized Water Reactor Design Certification" dated February 24, 2011
(3) File (ML111080683), Summary of the March 31, 2011, Public Meeting with Mitsubishi Heavy Industries, Ltd., Discuss Its Proposal to the Seismic Analysis and Containment Design, Design Control Document, Section 3.7 and Section 3.8 as Part of the United States – Advanced Pressurized Water Reactor Nuclear Power Plant Combined License Application
(4) Letter (ML11249A091 / MHI Ref: UAP-HF-11290) from Y. Ogata (MHI) to U.S. NRC, "Updated Completion Plan for US-APWR Seismic and Structural Analyses" dated September 1, 2011
(5) Letter (ML11269A048 / MHI Ref: UAP-HF-11319) from Y. Ogata (MHI) to U.S. NRC, "Updated Completion Plan for US-APWR Seismic and Structural Analyses" dated September 22, 2011
(6) Letter (ML12011A031 / MHI Ref: UAP-HF-12001) from Y. Ogata (MHI) to U.S. NRC, "Plan to Update the Completion Plan for US-APWR Seismic and Structural Analyses" dated January 5, 2012

With this letter Mitsubishi Heavy Industries, Ltd. (MHI) is providing an update to the current plan for completing the resolution of seismic issues related to the US-APWR.

In Reference 1, MHI provided a revised completion plan for the US-APWR seismic and structural analyses to address the critical issues identified by the NRC in Reference 2. The previous plan was also based on feedback received at the public meeting held on March 31, 2011 (Reference 3) and includes the schedule of the documents for submittal, those available for audit, and a list of impacts on the DCD. Reference 4 updated the progress of the completion plan, with the commitment to finalize Attachments 1, 2 and 3 of Reference 1 by the end of September 2011. Reference 5 provided the updates to Attachments 1, 2 and 3, as committed by Reference 4.

Reference 6 informed the NRC that progress towards completing the seismic and structural analyses was reported at the November 7, 2011 public meeting with NRC. Since that time, additional refinements were evaluated to provide the final seismic inputs and layout of standard plant structures of the US-APWR design.

This letter provides updates to previously submitted information, as committed by Reference 6. As noted during the March 29, 2012 NRC public meeting, a summary of changes to seismic inputs is as follows:

- Improvements to plant layout, including establishing the Nuclear Island by combining the reactor building complex, auxiliary building, and east and west power source buildings on a common basemat, and the Turbine Island by combining the turbine building and electrical room on a common basemat
- The reinstatement of Northridge Mt. Baldy set of time history seed records
- The establishment of a 16 inch gap to accommodate differential settlements and differential tilt between the Nuclear Island and Turbine Island
- Sliding displacement will be evaluated by employing non-linear sliding analysis using 5 sets of time histories.

This letter also provides updates to previously submitted information in Attachments 1, 2, 3 and 4 for the following respective subjects:

- Attachment 1, List and schedule of impacted Technical Reports
- Attachment 2, List and schedule of impacted calculations for seismic and structural analyses
- Attachment 3, List of impacted DCD chapters, and schedule of DCD markups
- Attachment 4, List of updated responses to historical (previously-responded) RAIs, list of RAI responses previously on-hold, and a list and schedule of responses to open RAIs

The detail provided within technical reports and RAI responses will continue to be enhanced as necessary to describe that the final and complete US-APWR design complies with regulatory requirements. These impending updates will be communicated with the NRC through responses to RAIs, weekly NRC conference calls, and other means of notification of document updates during the normal progress of design. The technical report submittal plan within Attachment 1 will therefore be continuously maintained to reflect additional commitments to

update technical reports in the future. RAI responses identified in Attachment 4 will all be responded by the end of August, 2012. RAIs in progress with earlier commitment dates will be responded by those commitment dates as indicated in Attachment 4.

MHI, together with the support of the Design Centered Working Group members Dominion and Luminant, will continue to work closely with the NRC in order to maintain the review schedule while ensuring the quality of the submittals.

Please contact Mr. Joseph Tapia, General Manager of Licensing Department, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of this letter. His contact information is provided below.

Sincerely,

Yoshiki Ogata,
Director – APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

CC: J. A. Ciocco
J. Tapia

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Attachment 1

Submittal Dates of Technical Reports

Attachment 1 - Submittal Dates of Technical Reports

Doc. #	Title	Current Contents	Updates and Future Contents	Date to NRC
Technical Reports for DCD Sections 3.7 and 3.8				
MUAP-10006	Soil-Structure Interaction Analyses and Results for the US-APWR Standard Plant	Rev. 1: - Results of SSI Analysis for R/B (LMSM) and PS/B (FE model)	Rev. 3 - Incorporate the updated modeling and analysis methodology and results from MUAP-10001, MUAP-11001, and MUAP-11011, including soil profiles and time histories, as applicable - Add description of combined nuclear island (NI) structure, comprising the R/B complex, A/B, and east & west PS/Bs - Update to reflect results of SSI and SSSI analysis for NI (using FE model) - Update to reflect results of SSSI analysis from Turbine Island (TI) to NI - Update to include appendix the fixed depths of the site models are determined based on parametric study as described in SRP 3.7.2 - Incorporate sensitivity study of embedment effect - Methodology and results of sliding stability are superseded by MUAP-12002	July 2012
		Rev. 2: Oct 2011 Completed (UAP-HF-11369) - Results of SSI Analysis for R/B (updated to FE model) and PS/B (updated design and stiffness) based on the updated MUAP-10001 - Update reference to SASSI to clarify that version 2.3.0 includes module updates through Nov 2009 - Update to reflect gap assessment - Update to include appendix containing parametric study of soil profile for compliance with SRP 3.7.2 - Update to include missing soil properties observed by NRC staff - Update discussion on gaps between buildings		
MUAP-12002	Sliding Evaluation and Results	N/A	Rev.0 - Description of Methodology of Sliding Evaluation for NI and TI	May 2012
			Rev.1 - Description of Result of Sliding Evaluation for NI and TI	July 2012

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Doc. #	Title	Current Contents	Updates and Future Contents	Date to NRC
MUAP-11002	T/B Model Properties, SSI Analyses, and Structural Integrity Evaluation	Rev. 0: - Description of Model for T/B (FE model) - Results of SSI for T/B Rev. 1: Oct 2011 Completed(UAP-HF-11369) - Description of Model for T/B - Results of SSI for T/B with the T/B - Methodology and Results of Sliding Stability - Methodology and Results of Overturning Stability - Description of Displacement of T/B - Update to reflect RAIs 766-5819 (03.07.02) and 767-5821 (03.08.04)	Rev. 2 - Update the methodology for TI, comprising the turbine building (T/B) and electrical room (E/R) - Results of SSI for combined TI foundation - Methodology and Results of Overturning Stability - Description of Displacement for TI - Methodology and Results of Sliding Stability are superseded by MUAP-12002	July 2012
Technical Report - To be incorporated or withdrawn				
MUAP-11007	Embedment and Ground Water Effects on SSI	Rev. 0: June 2011 Completed (UAP-HF-11196) - Methodology of Sliding Stability - Methodology of Sensitivity Study on Water Table Effect - Methodology on Sensitivity Study on Embedment Effect Rev. 1: Oct. 2011 Completed (UAP-HF-11196) - Revise due to updated time history and soil profile inputs - Results of Sensitivity Study on Water Table Effect (FE Model) - Results of Sensitivity Study on Embedment Effect (LMSM) - Results of Sliding Stability (FE Model)	- Nuclear Island is to be evaluated by 0-side Embedment and incorporated in MUAP-10006 Rev.3 - Ground Water Effect will be addressed in Response to RAI 660-5134	(Response to RAI 660-5134 will be revised by July 2012)

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Doc. #	Title	Current Contents	Updates and Future Contents	Date to NRC
MUAP-10001	Seismic Design Bases of the US-APWR Standard Plant	Rev. 2: - Description of Model for R/B (LMSM) and PS/B (FE model) - Validation of Model for R/B (LMSM) and PS/B (FE model) - Methodology of Concrete Cracking Effects Rev. 3: June 2011 Completed(UAP-HF-11179) - Description of Model for R/B (updated to FE model) and PS/B (update for design changes and stiffness) - Validation of Model for R/B (updated to FE model) and PS/B (update to reflect minor design changes) - Update Methodology of Concrete Cracking Effects (including stiffness reduction, damping values) - Update reference to SASSI to clarify that version 2.3.0 includes module updates through Nov 2009 Rev. 4: Oct 2011 Completed(UAP-HF-11369) - Update development of soil profiles and strain compatible properties - Update time history methodology - Update description of structures and layout	- Content will be incorporated into MUAP-10006, Rev. 3	(MUAP-10006 will be submitted by July 2012)
MUAP-11001	A/B Model Properties, SSI Analyses, and Structural Integrity Evaluation	Rev. 0: - Description of Model for A/B (FE model) - Results of SSI for A/B Rev. 1: June 2011 Completed(UAP-HF-11182) - Description of Model for A/B (unchanged) - Methodology of Stability and relative displacement for A/B (previously excluded)	- Content will be incorporated into MUAP-10006, Rev. 3	(MUAP-10006 will be submitted by July 2012)
MUAP-11006	Validation of LMSM for R/B Complex	Rev. 0: June 2011Completed(UAP-HF-11196) - Description of Model for R/B (LMSM) – used only for sliding stability and sensitivity studies - Validation of Model for R/B (LMSM)	- Withdraw since LMSM is changed to FEM	N/A

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Doc. #	Title	Current Contents	Updates and Future Contents	Date to NRC
MUAP-11011	Effects of Structure-Soil-Structure Interaction (SSSI) on Standard Seismic Design of US-APWR Plant	Rev. 0: June 2011 Completed(UAP-HF-11196) - Methodology of SSSI Analysis	- Content will be incorporated into MUAP-10006, Rev. 3	(MUAP-10006 will be submitted by July 2012)
MUAP-08002	PS/B Enhanced Information for PS/B Design	Rev. 0: - Provide results of the lumped mass stick model analysis of east and west PS/Bs	- Content will be incorporated into MUAP-10006, Rev. 3	(MUAP-10006 will be submitted by July 2012)
MUAP-08005	Dynamic Analysis of the Coupled RCL-R/B-PCCV-CIS Lumped Mass Stick Model	Rev. 0: - Provide dynamic seismic analysis of the coupled system including the RCL, R/B, PCCV, and CIS. - Frequencies and mode shapes of dominant modes - Acceleration and displacement responses of structures - Forces and moments in selected building structures - ISRS	- Models have already changed from LMSM to FEM and contents were incorporated into MUAP-10001 Rev. 4 - MUAP-10001 Rev. 4 was incorporated into MUAP-10006, Rev. 3	(MUAP-10006 will be submitted by July 2012)
SC Module				
MUAP-11013	Design Criteria for SC Modules	N/A	Rev. 0: - Design Criteria for SC modules - Methodology for SC modules	June 2011 Completed (UAP-HF-11196)

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Doc. #	Title	Current Contents	Updates and Future Contents	Date to NRC
			Rev. 1: - Further clarify design approach for the CIS (ACI 349 methodology)	August 2011 Completed (UAP-HF-11265)
MUAP-11018	CIS: Stiffness and Damping for Analysis	N/A	Rev. 0: [Task 1-A] - Applied stiffness and damping for each part of CIS	August 2011 Completed (UAP-HF-11256)
MUAP-11019	CIS: SC Wall Design Criteria (For In-Plane and Out-of-Plane Behavior)	N/A	Rev. 0: [Task 2-A] - Design criteria for in-plane behavior - Design criteria for out-of-plane behavior - Design criteria for interaction equation - Scope and description of additional testing	September 2011 Completed (UAP-HF-11316)
MUAP-11020	CIS: Anchorage, Connection, and Section Design and Detailing	N/A	Rev. 0: [Task 2-C, 2-D (excluding design adequacy check)] - Design criteria for anchorage - Design criteria for connections - Design criteria for section design and detailing - Scope and description of additional testing	September 2011 Completed (UAP-HF-11335)
Technical Reports for Other DCD Sections				
MUAP-08012*	Sump Strainer Stress Report	Rev. 1: - Stress Results based on SSI Analysis for R/B (LMSM)	Rev. 2: - Stress Results based on SSI Analysis for R/B Complex (FEM)	February 2013
MUAP-07033*	Mechanical Analysis for US-APWR New and Spent Fuel Racks	Rev. 0: - Stress Results based on SSI Analysis for R/B (LMSM)	Rev. 1: - Stress Results based on SSI Analysis for R/B Complex (FEM)	March 2013
MUAP-07032*	Criticality Analysis for US-APWR New and Spent Fuel Racks	Rev.1 - Critical analysis of New and Spent Fuel Racks which component structure is based on SSI analysis for R/B (LMSM).	Rev.2 - Critical analysis of New and Spent Fuel Racks based on the component structure is described in MUAP-07033.Rev.1	March 2013

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Doc. #	Title	Current Contents	Updates and Future Contents	Date to NRC
MUAP-09014*	Thermal-Hydraulic Analysis for US-APWR Spent Fuel Racks	Rev.0 Thermal-hydraulic analysis of the spent fuel rack (SFRs) which component structure is based on SSI analysis for R/B (LMSM).	Rev.1 - Thermal-hydraulic analysis of the spent fuel racks (SFRs) which component structure is described in MUAP-07033 Rev.1	March 2013
MUAP-08007*	Evaluation Results of US-APWR Fuel System Structural Response to Seismic and LOCA Loads	Rev. 3: - Stress Results based on SSI Analysis for R/B (LMSM)	Rev. 4: - Stress Results based on SSI Analysis for R/B (FEM)	March 2013
MUAP-10023*	Initial Type Test Result of Class 1E Gas Turbine Generator System	Rev. 2: - GTG seismic test results based on the bounding seismic input.	Rev. 3 - Re-evaluation of the test results based on SSI Analysis for PS/B (R/B complex). - Stress Results of the other components (e.g., the Generator and Air Receiver Assembly) based on SSI Analysis for PS/B (R/B complex).	February 2013
MUAP-09002	Summary of Seismic and Accident Load Conditions for Primary Components and Piping	Rev.2 - Seismic and accident loads conditions for PSC design specifications.	Rev.3 - Revise the seismic loads based on the SSI Analysis for R/B Complex (FEM)	February 2013

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Notes)

R3: Revisions to Letter (MHI Ref: UAP-HF-11319, ML11269A048) from Y. Ogata (MHI) to U.S. NRC, " Updated Completion Plan for US-APWR Seismic and Structural Analyses" dated September 22, 2011. R3

*: MHI will examine the seismic design changes and layout changes to determine if revisions are required. If a revision is required, the report will be submitted to NRC.

Attachment 2

Dates of Calculation Reports (Available for Audit)

Attachment 2 - Dates of Calculation Reports (Available for Audit)

Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
Calculations for Technical Report and Response to RAI				
NIC-13-05-113-001 (MUAP-10006)	Dynamic FE Model Development and Validation of NI Complex	N/A	Rev. 0: - Dynamic FE Model Development of NI Complex	July 2012
NIC-13-05-113-002 (MUAP-10006)	NI Complex Standard Plant SSI Analysis	N/A	Rev. 0: - Calculation documenting the runs of the NI Complex and PCCV analyses with reduced stiffness (lower bound) SSE damping and full stiffness (upper bound) OBE damping and CIS analysis with full and reduced stiffness and associated damping	July 2012
NIC-13-05-205-001 (MUAP-12002)	Non-Linear Sliding Analysis of the Standard Plant NI Complex	N/A	Rev. 0:	July 2012
NIC-13-05-205-002 (MUAP-10006)	Seismic Stabilities (Overturning and Bearing Pressure) of the Standard Plant NI Complex	N/A	Rev. 0:	July 2012
SSI-12-05-100-012 (MUAP-10006)	Modified Recorded Ground Time History to Fit CSDRS (Northridge)	N/A	Rev. 0:	July 2012
SSI-12-05-100-013 (MUAP-10006)	Development of DCD Time Histories using Nahanni Seed	N/A	Rev. 0:	July 2012
SPS-13-05-113-002 (MUAP-10006)	Standard Plant Required Gap Analysis	N/A	Rev. 0: - Dynamic Differential Displacements methodology and results - Standard plant required gap analysis	August 2012
SPS-13-05-113-010 (Response to RAI)	Ground Water Table Effect on SSI Response of the US-APWR	Rev. 0: - Ground Water Table Effect on Seismic Soil-Structure Interaction Response of	Rev. 1: - Ground Water Table Effect on Seismic Soil-Structure Interaction Response of	August 2012

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Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
	Standard Plant R/B Complex	the US-APWR Standard Plant R/B Complex	the US-APWR Standard Plant R/B Complex	
SPS-13-05-113-011	SSI Analysis: Flexible Volume Method versos Modified Subtraction Method Study	N/A	Rev. 0:	August 2012
SPS-13-05-113-006 (MUAP-10006)	Standard Plant Soil Profiles	N/A	Rev. 0:	July 2012
SPS-13-05-113-007 (MUAP-10006)	Standard Plant Seismic Time Histories	N/A	Rev. 0:	July 2012
SPS-13-05-113-008 (MUAP-10006)	Standard Plant SSSI Analysis	N/A	Rev. 0: - Standard Plant SSSI Analysis	July 2012
SPS-13-05-205-001 (MUAP-12002)	Short Term and Long Term Settlement Analysis of Standard Plant Structure	N/A	Rev. 0: - Revised Calculation Report will be available for audit - Update to include changes resulting from original time history seed (Northridge) - Update to include changes to the building layout	July 2012
SPS-13-05-113-009	SSI and SSSI Analysis – ISRS Results	N/A	Rev. 0:	July 2012
TUB-13-05-205-001	Non-Linear Sliding Analysis of the Standard Plant TI	N/A	Rev. 0:	July 2012

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Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
Calculations for Structural Design				
REB-13-05-230-001	Design Report for the Basic Design of the US-APWR NI	Rev. 0: - Basic Design Results based on the seismic design forces obtained by LMSM	Rev. 1: - Basic Design Results based on the seismic design forces obtained by FEM	March 2013
CIS-13-05-230-004	Basic Analysis and Design of CIS	Rev. 2: - Basic Design Results based on the seismic design forces obtained by LMSM	Rev. 3: - Basic Design Results based on the seismic design forces obtained by FEM - Check of the design adequacy against the enhanced detailed design criteria reports, including design check of critical sections - Tasks 1-B, 2-B, 2-C and 2-D	March 2013
RBF-13-05-205-001	Basic Analysis of the US-APWR NI (including stability evaluation)	Rev. 0: - Basic Design Results based on the seismic design forces obtained by LMSM	Rev. 1: - Basic Design Results based on the seismic design forces obtained by FEM	March 2013
RBF-13-05-205-002	Basic Design of Common Basemat (ASME)	Rev. 0: - Basic Design of R/B Foundation (ASME)	Rev. 1: - Basic Design of Common Basemat (ASME)	March 2013
PCV-13-05-230-013 (Supports DCD)	PCCV Liner Strain Near Penetrations	Rev. 0: June 2011 - Detailed calculation of strain results near penetrations	Rev. 1: - Detailed calculation of strain results near penetrations	April 2013
PCV-13-05-230-004 (Supports PCV-13-05-230-003)	Basic Design Verification of PCCV	Rev. 2: - Basic Design Verification of PCCV	Rev. 3: - Basic Design Verification of PCCV	April 2013
PCV-13-05-230-005 (Supports: PCV-13-05-230-003)	PCCV Thermal Analysis	Rev. 0: - PCCV Thermal Analysis	Rev. 1: - PCCV Thermal Analysis	April 2013
PCV-13-05-230-006 (Supports: PCV-13-05-230-003)	PCCV Creep Evaluation	Rev. 0: - PCCV Creep Evaluation	Rev. 1: - PCCV Creep Evaluation	April 2013
PCV-13-05-230-007 (Supports: PCV-13-05-230-003)	PCCV Tendon Prestress Evaluation	Rev. 1: - PCCV Tendon Prestress Evaluation	Rev. 2: - PCCV Tendon Prestress Evaluation	April 2013

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Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
PCV-13-05-230-008	Basic Design of PCCV Liner System	Rev. 0: - PCCV Liner Anchor Design	Rev. 1: - PCCV Liner Anchor Design	April 2013
PCV-13-05-230-010	PCCV Buttress Design	Rev. 1: - PCCV Buttress Design	Rev. 2: - PCCV Buttress Design	April 2013
PCV-13-05-230-011	PCCV Equipment Hatch and Airlock Analysis	Rev. 2: - PCCV Equipment Hatch and Airlock Analysis	Rev. 3: - PCCV Equipment Hatch and Airlock Analysis	April 2013
PCV-13-05-230-012	PCCV Equipment Hatch and Airlock Design	Rev. 1: - PCCV Equipment Hatch and Airlock Design	Rev. 2: - PCCV Equipment Hatch and Airlock Design	April 2013
PCV-13-05-271-001	Concrete Calculation for Evaluation of Local Stresses and Rebar Requirements at Sleeve Penetrations	Rev. 1: - Concrete Calculation for Evaluation of Local Stresses and Rebar Requirements at Sleeve Penetrations	Rev. 2: - Concrete Calculation for Evaluation of Local Stresses and Rebar Requirements at Sleeve Penetrations	April 2013
PCV-13-05-272-001	Design of PCCV Mechanical Penetrations	Rev. 1: - Type I through Type V General Penetration for Small Bore Piping and Electrical Penetrations	Rev. 2: - Type I through Type V General Penetration for Small Bore Piping and Electrical Penetrations	April 2013
PCV-13-05-272-002	Design of PCCV Electrical and Ventilation Penetrations	Rev. 1: - Large Bore Mechanical Pipe Penetrations	Rev. 2: - Large Bore Mechanical Pipe Penetrations	April 2013
PCV-13-05-272-003	Design of PCCV Fuel Transfer Tube Penetration	Rev. 1: - Fuel Transfer Tube Penetration	Rev. 2: - Fuel Transfer Tube Penetration	April 2013
PCV-13-05-272-004	PCCV Penetration Design Basis Calculation	Rev. 1: - Main Steam, Main Feedwater and Blowdown Pipe Penetrations	Rev. 2: - Main Steam, Main Feedwater and Blowdown Pipe Penetrations	April 2013
PCV-13-05-277-001	Preliminary Calculation for Polar Crane Runway Girder Calculation	Rev. 1: - Preliminary Calculation for Polar Crane Runway Girders	Rev. 2: - Preliminary Calculation for Polar Crane Runway Girders	April 2013
PCV-13-05-277-002	Preliminary Design of PCCV Polar Crane Bracket Structural Steel and Anchorage to Concrete	Rev. 1: - Preliminary Calculation for Polar Crane Support Brackets	Rev. 2: - Preliminary Calculation for Polar Crane Support Brackets	April 2013

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Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
PCV-13-05-262-001	Calculation for Attachment Loading to the Liner Plate (Loading Calculation)	Rev. 1: - Calculation for Attachment Loading to the Liner Plate (Loading Calculation)	Rev. 2: - Calculation for Attachment Loading to the Liner Plate (Loading Calculation)	April 2013
PCV-13-05-262-002	Calculation for 4 Typical Attachments to Containment Wall Liner Plate	Rev. 1: - Calculation for 4 Typical Attachments to Containment Wall Liner Plate	Rev. 2: - Calculation for 4 Typical Attachments to Containment Wall Liner Plate	April 2013
PCV-13-05-640-001 (Supports: CIS-13-05-230-004)	Calculation for SC Module Anchors	Rev. 1: - Calculation for SC Module Anchors	Rev. 2: - Calculation for SC Module Anchors	April 2013
PCV-13-05-640-002 (Supports: CIS-13-05-230-004)	Calculation for Rebar Coupler for CIS	Rev. 1: - Calculation for Rebar Coupler for CIS	Rev. 2: - Calculation for Rebar Coupler for CIS	April 2013
Calculations – To be incorporated or withdrawn				
REB-13-05-113-004 (MUAP-10006)	R/B Complex Standard Plant SSI Analysis	Rev. 0: October 2011 - Calculation documenting the runs of the R/B, PCCV analyses with reduced stiffness (lower bound) SSE damping and full stiffness (upper bound) OBE damping and CIS analysis with reduced stiffness and associated damping -	- Content will be incorporated into NIC-13-05-113-002	N/A
PSB-13-05-113-002 (MUAP-10006)	PS/B Complex Standard Plant SSI Analysis	Rev. 0: - PS/B Standard Design SSI Analysis Rev.1: October 2011 - Calculation documenting the runs of the R/B and PS/B analyses with reduced stiffness (lower bound) SSE damping and full stiffness (upper bound) OBE damping -	- Content will be incorporated into NIC-13-05-113-002	N/A
REB-13-05-113-003 (MUAP-10001)	Dynamic FE Model Development and Validation of R/B	Rev. 0: Dynamic FE Model Development of R/B	- Content will be incorporated into NIC-13-05-113-001	N/A

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Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
REB-13-05-205-003 (Short term & long term settlement); (MUAP-11001, 11002, and 10006)	Subgrade Modeling in Finite Element Analysis - Settlement Calculation	Rev. 0: October 2011 - Long term deformation moduli for sand sites and clay sites - Long term displacements for Soil Profile 270-500 considering two types of subgrade –sand and clay - Settlements of all structures including dishing effects and effects of primary consolidation (clay) - Tilt of all structures from long term loads for gap - Differential settlements from long term loads (between adjacent structures and for each structure) - Update to include changes to the building layout - Update to include changes resulting from new time history seed - Update to reflect changes in soil profiles	- Content will be incorporated into SPS-13-05-205-001	N/A
REB-13-05-205-004 (Seismic & static bearing pressure); (MUAP-11001, 11002, and 10006)	Subgrade Modeling in Finite Element Analysis - Bearing Pressure Demand Calculation	Rev. 0: October 2011 - Demand and allowable bearing pressures	- Content will be incorporated into NIC-13-05-205-002	N/A
	New Calculation Report - Documenting Reduced Stiffness of CIS	Void - Refer to REB-13-05-113-004 : October 2011	- Content will be incorporated into NIC-13-05-113-001	N/A
PCV-13-05-230-009 - Supports PCV-13-09-230-004,010,012	Postprocessor Theory	N/A	Delete	N/A
REB-13-05-113-001 (MUAP-11006)	Lumped Mass Stick Model Development of R/B	Rev. 0: - Lumped Mass Stick Model Development of R/B	Delete	N/A
PSB-13-05-230-002 (MUAP-10006)	Design Report for the Basic Design of the US-APWR PS/B	Rev. 0: - Basic Design Results based on the seismic design forces obtained by FEM	- Results incorporated in the revision of REB-13-05-230-001	N/A

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Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
PSB-13-05-113-001 (MUAP-10001)	Dynamic Model Development and Validation of PS/B	Rev. 0: - Dynamic Model Development and Validation of PS/B	- Results incorporated in the revision of MUAP-10006	N/A
PSB-13-05-113-002 (MUAP-10001 & -10006)	PS/B Standard Design SSI Analysis	Rev. 0: - PS/B Standard Design SSI Analysis	- Results incorporated in the revision of MUAP-12002	N/A
PSB-13-05-205-001 (MUAP-11007)	Stability Evaluation of PS/B	Rev. 0: - Stability Evaluation of PS/B	- Results incorporated in the revision of MUAP-12002 for sliding and MUAP-10006 for SSI analysis	N/A
AUB-13-05-113-001 (MUAP-11001)	Static and Dynamic Model Development and Structural Integrity Evaluation of A/B	Rev. 0: - Static and Dynamic Model Development and Structural Integrity Evaluation of A/B	- Results incorporated in the revision of MUAP-10006	N/A
AUB-13-05-113-002 (MUAP-11001)	A/B Standard Design SSI Analysis	Rev. 0: - A/B Standard Design SSI Analysis	- Results incorporated in the revision of MUAP-10006	N/A
AUB-13-05-205-001 (MUAP-11001)	Stability Evaluation of A/B	Rev. 0: - Stability Evaluation of A/B	- Results incorporated in the revision of MUAP-12002	N/A
RB-13-05-113-002 (MUAP-10001)	R/B Standard Design SSI Analysis	Void - Refer to REB-13-05-113-004		N/A
REB-13-05-205-001		Void - Refer to RBF-13-05-205-001		N/A
REB-13-05-205-002		Void - Refer to RBF-13-05-205-002		N/A
RBF-13-05-205-003		Void - Refer to RBF-13-05-205-002		N/A
PCV-13-05-641-001		Void - Refer to PCV-13-05-230-008		N/A
PCV-13-05-270-001		Void - Refer to PCV-12-05-230-013		N/A
PCV-13-05-277-003		Void - Refer to PCV-13-05-277-002		N/A
Calculations for SC Module or others				
CIS-13-15-150-002 (MUAP-11013)	1/6th Scale Test of Primary Shield Structure: Analysis up to SSE Level Loading	N/A	Rev. 0: - Results of CIS pushover analysis up to SSE	November 2011 (Completed)
CIS-13-15-150-003 (MUAP-11013)	1/6th Scale Test of Primary Shield Structure: Analysis Beyond SSE Level Loading	N/A	Rev. 0: - Results of CIS pushover analysis beyond SSI	January 2012 (Completed)

R2

Doc. # (support to)	Title	Current Contents	Updates and Future Contents	Available Following Last Date
CIS-13-15-150-004 (MUAP-11013)	Benchmarked NIFE Models for SC Components: In-Plane Behavior	N/A	Rev. 0: - Benchmarking of NIFE models to SC components and primary shield - In Plane Behavior - Thermal Mechanical Behavior	November 2011 (Completed)
CIS-13-15-150-005 (MUAP-11013)	Benchmarked NIFE Models for SC Components: Out-of-Plane Behavior	N/A	Rev. 0: - Benchmarking of NIFE models to SC components and primary shield - Out-of-Plane Behavior	November 2011 (Completed)
CIS-13-15-150-007 (MUAP-11013)	1/10th Scale CIS Test: Analysis up to SSE Level Loading	N/A	Rev. 0: - Benchmarking of NIFE models to 1/10th scale CIS test up to SSE	December 2011 (Completed)
CIS-13-15-150-008 (MUAP-11013)	1/10th Scale CIS Test: Analysis Beyond SSE Level Loading	N/A	Rev. 0: - Benchmarking of NIFE models to 1/10th scale CIS test beyond SSE	February 2012 (Completed)
CIS-13-15-150-010 (MUAP-11013)	US-APWR CIS Containment Internal Structure Seismic Capacity	N/A	Rev. 0: - Results of CIS pushover analysis	February 2012 (Completed)
UAP-SGI-09001	US-APWR Design Certification Aircraft Impact Assessment	Rev 0: - Layout based on DCD Rev. 2	Rev 1: - Revision/reconciliation based on the adjusted layout	October 2012
TBD (MUAP-11002)	Steel Member Stress of T/B	N/A	Rev 0: - Check of the adequacy of steel member by checking member stress	January 2012

R2

Notes:

R2: Revisions to Letter (MHI Ref: UAP-HF-11319, ML11269A048) from Y. Ogata (MHI) to U.S. NRC, " Updated Completion Plan for US-APWR Seismic and Structural Analyses" dated September 22, 2011.

R2

- Since the above listed documents are internal documents, the above information is subject to change

Attachment 3

Impacts on DCD

Attachment 3 – Impacts on DCD

DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
Tier 1	Tier 1 Layout drawings	X	X	August 2012
Tier 1	Tier 1 Table 2.2-2 Update Wall Thicknesses Update table notes	X		August 2012 June 2011 (UAP-HF-11195) February 2012 (UAP-HF-12047)
Tier 2 1	1.2 Plot Plan and Layout drawings	X	X	August 2012
2	Table 2.0-1 Revise the soil profiles description and data Revise bearing capacity demands Revise allowable settlements	X		August 2012
2	Table 2.3-3 Receptor Heights Table 2.3.4-1 to Table 2.3.4-7 Revise the horizontal distance source to receptor, straight distance and direction receptor to source (degree) Figure 2.3-2 Site Plan with Release and Intake Locations		X	August 2012
3	3.3.1.2 Update the description for Determination of Applied Forces for PS/B and A/B to reflect the layout change		X	August 2012
3	3.4 Update floor areas for Internal Flooding Analysis		X	August 2012

R2

DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
3	3.5, 3.7, 3.8, 3.9, 3.12 (General) Update for latest ACI 349 revision including any criteria updates	X		February 2012 (UAP-HF-12047)
3	3.6.3.3, 3.6.3.3.4, Table 3.6-2 MS piping material may be changed to SA 106 from SA 333.	X		September 2012
3	3.7.1.2 Update this discussion to tie to the bounding conditions discussion in 3.7.2.4 with respect to how proper damping values are selected	X		August 2012
3	3.7.1.3 Update generic profiles	X		August 2012
3	3.7.2 Revise methodology for seismic response analyses of R/B Complex and PS/B dynamic FE models to address the new analyses with the structures (R/B Complex, A/B, east and west PS/B) consolidated onto a single common basemat	X	X	August 2012
3	3.7.2 Update generic profiles	X		August 2012
3	3.7.2.1 Revise discussion of seismic analysis methods to reflect latest methods, especially Table 3.7.2-1	X		August 2012
3	3.7.2.2 Update FE models to common basemat structure	X	X	August 2012
3	3.7.2.2 Update natural frequencies and responses discussion based on the latest results and import some basic results information from MUAP-10006 Update with any needed references to A/B and T/B reports and/or results (general note and may apply to other sections)	X	X	August 2012
3	3.7.2.3.1 Update FE models to common basemat structure Update analytical models discussion particularly regarding bounding conditions analyses and how damping values are assigned in conjunction with the various bounding/stiffness conditions (cracked, uncracked)	X	X	August 2012

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DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
3	3.7.2.3.2, 3.7.2.3.3, Update FE models to common basemat structure	X	X	August 2012
3	3.7.2.3.2 Update generic profiles	X		August 2012
3	3.7.2.3.7, 3.7.2.3.7.1, 3.7.2.3.7.2, 3.7.2.3.8, 3.7.2.3.9, 3.7.2.3.9.1, 3.7.2.3.9.2, Update the description for the stiffness and mass properties	X	X	August 2012
3	3.7.2.3.10, 3.7.2.3.10.1, 3.7.2.3.10.2, 3.7.2.3.10.3, 3.7.2.3.10.4, 3.7.2.3.10.5, Update FE models to common basemat structure	X	X	August 2012
3	3.7.2.3.11 Update FE models to common basemat structure	X	X	August 2012
3	3.7.2.4, 3.7.2.4.1 Revise to address how the standard design envelopes embedment effects Update FE models to common basemat structure	X	X	August 2012
3	3.7.2.4 Update generic profiles Category I structures are separated from Seismic Category II structures	X		August 2012
3	3.7.2.5, 3.7.2.6 Update FE models to common basemat structure	X	X	August 2012
3	3.7.2.8 Update to reflect new design changes for stability	X		August 2012
3	3.7.2.8.1 Update the description of AC/B to reflect the layout change of the common basemat structure	X	X	August 2012
3	3.7.2.8.2 Update the description of T/B to reflect to the layout change of the new gap size and common basemat structure	X	X	August 2012
3	3.7.2.8.3 Update the description of ESWPT in reflection to the layout change of the common basemat structure	X	X	August 2012

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DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
3	3.7.2.8.4 Update the description of A/B(Cat II) over Cat I in reflection to the layout change of the common basemat structure	X	X	August 2012
3	3.7.2.8.5, 3.7.2.8.6 Update the description of R/B, PCCV and PSB in reflection to the layout change of the common basemat structure	X	X	August 2012
3	3.7.2.11 Update FE models to common basemat structure	X	X	June 2011 (UAP-HF-11195) February 2012 (UAP-HF-12047)
3	3.7.2.14 Update to reflect new design changes for stability	X		August 2012
3	3.7.5 Update COL items of 3.7(25) and 3.7(28) to reflect the layout change of the common basemat structure	X	X	August 2012
3	3.7.6 Update references based on new revision of reports and new reports	X		August 2012
3	3.7 Tables and Figures Revise tables 3.7.1-3 and 3.7.2-3 and models in Figure 3.7.2-3, Figure 3.7.2-4, Figure 3.7.2-5, Figure 3.7.2-6, Figure 3.7.2-7 to reflect the layout change to common basemat Revise table 3.7.1-6 to update the general soil profiles	X	X	August 2012
3	3.8.1.4 Update based on latest design information based on the technical Report	X		August 2012
3	3.8.1.6 MS piping material may be changed to SA 106 from SA 333.	X		September 2012
3	3.8.3 (General) Revise the design criteria and methodology of SC modules	X		February 2012 (UAP-HF-12047)
3	3.8.3.5.2 Update for critical SC wall sections along with associated figures and tables	X		February 2012 (UAP-HF-12047)

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DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
3	3.8.4.1.3 Provide description of methodology used for stability evaluations	X		August 2012
3	3.8.4.4.1.1 Update for critical sections along with any figures and tables	X		August 2012
3	3.8.5.1 Update foundation description to common basemat (R/B Complex, A/B, east and west PS/B)	X	X	August 2012
3	3.8.5.4.1 Update embedment effects discussion. Update models to common basemat structure	X		August 2012 June 2011 (UAP-HF-11195)
3	3.8.5.4.1 Update generic profiles	X		August 2012
3	3.8.5.4.4 Revise analyses of settlement and bearing capacity discussion as required to reflect latest methodology	X		August 2012
3	3.8.5.5, 3.8.5.5.2 Update stability discussion adding non-linear sliding methodology Update models to common basemat structure	X		August 2012 June 2011 (UAP-HF-11195)
3	3.8.6 Update COL item 3.8(30) to reflect non-linear sliding methodology	X		August 2012
3	3.8.7 Update references based on new revision of reports and new reports	X		August 2012 June 2011 (UAP-HF-11195)

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DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
3	3.8 Figures Revise figures 3.8.1-3, 3.8.1-9, 3.8.3-6 (Sheet 6 of 7), 3.8.3-6 (Sheet 7 of 7), 3.8.4-1, 3.8.4-2, 3.8.4-3, 3.8.4-10, 3.8.4-11, 3.8.4-12, 3.8.5-1, 3.8.5-2, 3.8.5-3, 3.8.5-4, 3.8.5-5, 3.8.5-6, 3.8.5-7, 3.8.5-8, 3.8.5-9, 3.8.5-10 to reflect the layout changes to common basemat	X	X	August 2012
Appendix 3B	3B.2.2.2, Table 3B-2, Figure 3B-18 MS piping material may be changed to SA 106 from SA 333.	X		September 2012
Appendix 3H	Appendix 3H Update description and properties of RCL lumped mass stick model	X		August 2012 June 2011 (UAP-HF-11195)
Appendix 3I	Appendix 3I Revise R/B Complex In-Structure Response Spectra (ISRS) and provide ISRS for PS/B	X		August 2012
Appendix 3J	Appendix 3J Structural drawings		X	August 2012
Appendix 3K	Appendix 3K Tables 3K-3 thru 3K-4 Components Protected From Internal Flooding		X	August 2012
Appendix 3K	Appendix 3K Layout drawing of waterproof doors		X	August 2012
6	6.2 Figures 6.2.1-5, 6.2.2-9, and 6.2.5-2 Layout drawings		X	August 2012
6	6.4 Figure 6.4-5 Layout drawing		X	August 2012
6	6.5 Figures 6.5-2 thru 6.5-9 Layout drawing		X	August 2012

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DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
8	8.2 Layout drawing showing MT, UAT, RAT, MV Buses		X	August 2012
8	Table 8.3.1-3 thru 8.3.1-6 Revise Electrical Load Distribution Lists due to HVAC system change		X	August 2012
8	Technical Report: Qualification & Test Plan of Class 1E Gas Turbine Generator System (MUAP-07024 R2) Revise the Electrical Load List		X	August 2012
8	Technical Report: Onsite AC Power System Calculation (MUAP-09023 R0) Revise the Electrical Load List		X	August 2012
8	Figure 8.3.1-4 Class 1E Equipment Layout		X	August 2012
9	9.1 Fuel Rack Configuration	X		August 2012
9	Figure 9.1.4-1, Plan View of Light Load Handling System Figures 9.1.5-1 thru 9.1.5-3 Traveling Route Drawings		X	August 2012
9	Tables 9.2.7-1 thru 9.2.7-2 Update Essential Chilled Water System Data due to HVAC system change		X	August 2012
9	Technical Report: Safety-Related Air Conditioning, Heating, Cooling, and Ventilation Systems Calculations (MUAP-10020 R1) Re-calculation of the heating, cooling and airflow requirement of the safety-related HVAC systems to incorporate the layout changes.		X	August 2012
9	Tables 9.4.3-1 thru 9.4.5-1 Update AHU Equipment Design Data due to HVAC system change		X	August 2012
9	9.5 Appendix 9A/ figure 9A-1 Fire area drawing		X	August 2012
9	9.5 Appendix 9A/ table 9A-2 Fire Hazard analysis Summary		X	August 2012

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DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC
		Seismic Related Change	Layout Change	
9	9.5 Appendix 9A/ table 9A-3 Fire Zone/ Fire Area Inter face		X	August 2012
11	Figure 11.5-2 Monitor Layout drawings		X	August 2012
12	Table 12.3-1 Update Wall Thicknesses		X	August 2012
12	Tables 12.3-3 and 12.3-10 Mission Dose		X	August 2012
12	Figure 12.3-1 thru Figure 12.3-6, Figure 12.3-9, and Figure 12.3-11 Radiation Zone Maps		X	August 2012
13	Technical Report: Design Certification Physical Security Element Review (UAP-SGI-08001 R3) Revision/reconciliation based on the adjusted layout		X	October 2012
13	Technical Report: High Assurance Evaluation Assessment (UAP-SGI-08002 R3) Revision/reconciliation based on the adjusted layout		X	October 2012
15	Figure 15A.-1 Site Plan with Release and Intake Locations		X	August 2012
19	19.1.5.1.1 Revise soil cases in Seismic Risk Evaluation	X		June 2011 (UAP-HF-11195)
19	19.1.5.2 and 19.1.6.3 Revise Internal Fire PRA		X	August 2012
19	19.1.5.3 and 19.1.6.3 Revise Internal Flooding PRA		X	August 2012
19	Technical Report: Probabilistic Risk Assessment (Level 1/2) (MUAP-07030 R3) Incorporate the impact of the Layout design and seismic design		X	TBD

R2

DCD Affected Chapter	Summary of Potential Changes	Cause of Change		DCD Markup Date to NRC	
		Seismic Related Change	Layout Change		
19	Appendix 19A Aircraft Impact Assessment		X	December 2012	R2

Notes:

R2: Revisions to Letter (MHI Ref: UAP-HF-11319, ML11269A048) from Y. Ogata (MHI) to U.S. NRC, " Updated Completion Plan for US-APWR Seismic and Structural Analyses" dated September 22, 2011. R2

Attachment 4

RAI Response Assessment Results

RAI Response Assessment Results

RAI RESPONSE ASSESSMENT CRITERIA

The following criteria are intended to facilitate consistent categorization of previously submitted RAI responses with respect to the extent to which they are affected by design and methodology changes. There are three categories into which such RAI responses can be placed. These are:

A. No material effect

B. Editorial changes only

C. Material effect – Response revision required

Criteria to be used to determine the category assigned to an RAI response are listed below.

A. No material effect

An RAI response is category "A" when it meets one or more of the following criteria:

1. The RAI question is no longer applicable because its subject is no longer used by the DCD or its design documents (e.g., lumped-mass-stick-model usage for PCCV static analysis)[1]
2. DCD[2] changes do not alter the response or associated mark-ups, or they alter a response that was superseded by a subsequent response, or they alter mark-ups in a manner unrelated to the response.

Category A RAI responses require no revision.

B. Editorial changes only

An RAI response is category "B" when DCD changes alter response wording but not its material content.

Examples of editorial changes:

- DCD changes alter a transitory condition previously reported in an RAI or change a reference number (e.g., status report, technical report number, table number, drawing number, ITAAC number, etc.)[3].
- DCD changes correct a spelling or grammatical error.
- DCD changes alter a provided status but do not materially alter DCD technical content, a statement of fact, or conformance to regulations or regulatory guidance.

Category B RAI responses require no revision.

C. Material effect – Response revision required

An RAI response is categorized as "C" when DCD changes affect the RAI response in a way that is characterized by one or more of the following[4]:

- DCD changes materially alter a statement of fact.
- DCD changes materially alter technical content.
- DCD changes materially alter conformance to regulations or regulatory guidance.
- DCD changes cause a response to no longer directly and accurately answer the RAI question.
- Materially altered RAI responses will be revised except when the altered content is clearly[5] redundant to content provided in a subsequent (later) RAI response

[1] When an RAI question is no longer applicable, its response and associated actions, including commitments, are withdrawn.

[2] The term "DCD" includes supporting documents, such as analyses or technical reports.

[3] Technical reports that are combined or reorganized may change number or revision designations.

[4] When follow-up RAI responses exist, only the most recent response to a question is considered.

[5] In this context, "clearly means the same or substantially similar. This specifically excludes inferential content, such as similar information that can be inferred by interpretation of tables or figures.

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
55	968	03.07.04-01		UAP-HF-08175 (09/01/08)	A2
55	968	03.07.04-02		UAP-HF-08175 (09/01/08)	C
94	1491	02.05.04-1		UAP-HF-08272 (12/03/08)	C
94	1491	02.05.04-2		UAP-HF-08272 (12/03/08)	C
96	1498	02.05.02-1		UAP-HF-08272 (12/03/08)	B
211	1946	03.07.01-01	03.07.01-01	UAP-HF-09112 (03/25/09)	A1
211	1946	03.07.01-01	03.07.01-02	UAP-HF-09112 (03/25/09)	A1
211	1946	03.07.01-01	03.07.01-03	UAP-HF-09187 (04/23/09)	A1
211	1946	03.07.01-01	03.07.01-04	UAP-HF-09112 (03/25/09)	A1
211	1946	03.07.01-01	03.07.01-05	UAP-HF-09187 (04/23/09)	C
211	1946	03.07.01-01	03.07.01-06	UAP-HF-09187 (04/23/09)	A1
211	1946	03.07.01-01	03.07.01-07	UAP-HF-09187 (04/23/09)	C
212	1950	03.07.02-001	03.07.02-01	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-02	UAP-HF-09113 (03/30/09)	C
212	1950	03.07.02-001	03.07.02-03	UAP-HF-09188 (05/07/09)	A1
212	1950	03.07.02-001	03.07.02-04	UAP-HF-09113 (03/30/09)	A1
212	1950	03.07.02-001	03.07.02-05	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-06	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-07	UAP-HF-09113 (03/30/09)	C
212	1950	03.07.02-001	03.07.02-08	UAP-HF-09113 (3/30/09)	A1
212	1950	03.07.02-001	03.07.02-09	UAP-HF-09113 (03/30/09)	C

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
212	1950	03.07.02-001	03.07.02-10	UAP-HF-09113 (03/30/09)	A1
212	1950	03.07.02-001	03.07.02-11	UAP-HF-09113 (03/30/09)	A1
212	1950	03.07.02-001	03.07.02-12	UAP-HF-09188 (05/07/09)	A2
212	1950	03.07.02-001	03.07.02-13	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-14	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-15	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-16	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-17	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-18	UAP-HF-09188 (05/07/09)	A1
212	1950	03.07.02-001	03.07.02-19	UAP-HF-09188 (05/07/09)	A1
212	1950	03.07.02-001	03.07.02-20	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-21	UAP-HF-09113 (03/30/09)	C
212	1950	03.07.02-001	03.07.02-22	UAP-HF-09113 (03/30/09)	A2
212	1950	03.07.02-001	03.07.02-23	UAP-HF-09113 (03/30/09)	A2
212	1950	03.07.02-001	03.07.02-24	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-25	UAP-HF-09113 (03/30/09)	C
212	1950	03.07.02-001	03.07.02-26	UAP-HF-09113 (03/30/09)	A2
212	1950	03.07.02-001	03.07.02-27	UAP-HF-09188 (05/07/09)	C
212	1950	03.07.02-001	03.07.02-28	UAP-HF-09113 (03/30/09)	A2
213	1951	03.07.03-01	03.07.03-01	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-02	UAP-HF-09114 (03/27/09)	A2

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
213	1951	03.07.03-01	03.07.03-03	UAP-HF-09189 (04/24/09)	A2
213	1951	03.07.03-01	03.07.03-04	UAP-HF-09189 (04/24/09)	A2
213	1951	03.07.03-01	03.07.03-05	UAP-HF-09114 (03/27/09)	C
213	1951	03.07.03-01	03.07.03-06	UAP-HF-09189 (04/24/09)	A2
213	1951	03.07.03-01	03.07.03-07	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-08	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-09	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-10	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-11	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-12	UAP-HF-09189 (04/24/09)	A2
213	1951	03.07.03-01	03.07.03-13	UAP-HF-09114 (03/27/09)	A2
213	1951	03.07.03-01	03.07.03-14	UAP-HF-09189 (04/24/09)	A2
213	1951	03.07.03-01	03.07.03-15	UAP-HF-09189 (04/24/09)	A2
223	1996	03.08.01-01	03.08.01-01	UAP-HF-09161 (04/14/09)	A2
223	1996	03.08.01-01	03.08.01-02	UAP-HF-09161 (04/14/09)	A2
223	1996	03.08.01-01	03.08.01-03	UAP-HF-09161 (04/14/09)	A2
223	1996	03.08.01-01	03.08.01-04	UAP-HF-09161 (04/14/09)	A2
223	1996	03.08.01-01	03.08.01-05	UAP-HF-09161 (04/14/09)	C
223	1996	03.08.01-01	03.08.01-06	UAP-HF-09161 (04/14/09)	C
223	1996	03.08.01-01	03.08.01-07	UAP-HF-09161 (04/14/09)	C
223	1996	03.08.01-01	03.08.01-08	UAP-HF-09161 (04/14/09)	C

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
223	1996	03.08.01-01	03.08.01-09	UAP-HF-09161 (04/14/09)	C
223	1996	03.08.01-01	03.08.01-10	UAP-HF-09161 (04/14/09)	C
223	1996	03.08.01-01	03.08.01-11	UAP-HF-09161 (04/14/09)	C
223	1996	03.08.01-01	03.08.01-12	UAP-HF-09194 (04/24/09)	A2
223	1996	03.08.01-01	03.08.01-13	UAP-HF-09194 (04/24/09)	A2
223	1996	03.08.01-01	03.08.01-14	UAP-HF-09161 (04/14/09)	A2
322	1999	03.08.03-01		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	C
322	1999	03.08.03-02		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-03		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-04		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-05		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-06		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-07		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	B
322	1999	03.08.03-08		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	C

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
322	1999	03.08.03-09		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-10		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-11		UAP-HF-09278 (06/04/09) UAP-HF-09449 (09/17/09)	A2
322	1999	03.08.03-12		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-13		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-14		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	A2
322	1999	03.08.03-15		UAP-HF-09278 (06/04/09) UAP-HF-09449 (9/17/09)	C
340	2004	03.08.05-01		UAP-HF-09363 (07/03/09)	B
340	2004	03.08.05-02		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-03		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-04		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-05		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-06		UAP-HF-09363 (07/03/09)	A2
340	2004	03.08.05-07		UAP-HF-09363 (07/03/09)	A1
340	2004	03.08.05-08		UAP-HF-09363 (07/03/09)	A1

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
340	2004	03.08.05-09		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-10		UAP-HF-09363 (07/03/09)	A1
340	2004	03.08.05-11		UAP-HF-09363 (07/03/09)	A1
340	2004	03.08.05-12		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-13		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-14		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-15		UAP-HF-09363 (07/03/09)	A2
340	2004	03.08.05-16		UAP-HF-09363 (07/03/09)	A2
340	2004	03.08.05-17		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-18		UAP-HF-09363 (07/03/09)	C
340	2004	03.08.05-19		UAP-HF-09363 (07/03/09)	A2
340	2004	03.08.05-20		UAP-HF-09363 (07/03/09)	B
340	2004	03.08.05-21		UAP-HF-09363 (07/03/09)	A2
340	2004	03.08.05-22		UAP-HF-09363 (07/03/09)	A2
342	2000	03.08.04-01		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-02		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-03		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-04		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-05		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-06		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-07		UAP-HF-09360 (07/03/09)	A2

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
342	2000	03.08.04-08		UAP-HF-09360 (07/3/09)	A2
342	2000	03.08.04-09		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-10		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-11		UAP-HF-09360 (07/03/09)	A1
342	2000	03.08.04-12		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-13		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-14		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-15		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-16		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-17		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-18		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-19		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-20		UAP-HF-09360 (07/03/09)	C
342	2000	03.08.04-21		UAP-HF-09360 (7/03/09)	A2
342	2000	03.08.04-22		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-23		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-24		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-25		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-26		UAP-HF-09360 (07/03/09)	A1
342	2000	03.08.04-27		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-28		UAP-HF-09360 (07/03/09)	A2

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
342	2000	03.08.04-29		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-30		UAP-HF-09360 (07/03/09)	A2
342	2000	03.08.04-31		UAP-HF-09360 (07/03/09)	A2
489	3516	03.04.02-05		UAP-HF-09575 (12/23/2009)	C
490	3732	03.08.01-02		UAP-HF-10033 (02/04/10)	C
490	3732	03.08.01-03		UAP-HF-10033 (02/04/10)	A2
490	3732	03.08.01-04		UAP-HF-10033 (02/04/10)	A2
490	3732	03.08.01-05		UAP-HF-10033 (02/04/10)	A1
490	3732	03.08.01-06		UAP-HF-10033 (02/04/10)	A2
490	3732	03.08.01-07		UAP-HF-10033 (02/04/10)	A2
490	3732	03.08.01-08		UAP-HF-10033 (02/04/10)	C
490	3732	03.08.01-09		UAP-HF-10033 (02/04/10)	C
490	3732	03.08.01-10		UAP-HF-10033 (02/04/10)	C
491	3733	03.08.03-16		UAP-HF-10062 (03/03/10)	C
491	3733	03.08.03-17		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-18		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-19		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-20		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-21		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-22		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-23		UAP-HF-10062 (03/03/10)	A2

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
491	3733	03.08.03-24		UAP-HF-10062 (03/03/10)	A2
491	3733	03.08.03-25		UAP-HF-10062 (03/03/10)	C
493	3983	03.07.03-02		UAP-HF-10019 (01/28/10)	A2
493	3983	03.07.03-03		UAP-HF-10019 (01/28/10)	A2
493	3983	03.07.03-04		UAP-HF-10019 (01/28/10)	A2
493	3983	03.07.03-05		UAP-HF-10019 (01/28/10)	A2
494	3978	03.07.01-02		UAP-HF-10022 (01/29/10)	C
494	3978	03.07.01-03		UAP-HF-10022 (01/29/10)	C
494	3978	03.07.01-04		UAP-HF-10022 (01/29/10)	A2
495	3980	03.07.02-05		UAP-HF-10029 (02/02/10)	A2
495	3980	03.07.02-02		UAP-HF-10029 (02/02/10)	C
495	3980	03.07.02-03		UAP-HF-10029 (02/02/10)	A2
495	3980	03.07.02-04		UAP-HF-10029 (02/02/10)	C
496	3735	03.08.05-23		UAP-HF-10032 (02/04/10)	A2
496	3735	03.08.05-24		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-25		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-26		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-27		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-28		UAP-HF-10032 (02/04/10)	A1
496	3735	03.08.05-29		UAP-HF-10032 (02/04/10)	A1
496	3735	03.08.05-30		UAP-HF-10032 (02/04/10)	A1

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
496	3735	03.08.05-31		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-32		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-33		UAP-HF-10032 (02/04/10)	C
496	3735	03.08.05-34		UAP-HF-10032 (02/04/10)	A2
496	3735	03.08.05-35		UAP-HF-10032 (02/04/10)	A2
497	3734	03.08.04-32		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-33		UAP-HF-10047 (02/19/10)	C
497	3734	03.08.04-34		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-35		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-36		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-37		UAP-HF-10047 (02/19/10)	C
497	3734	03.08.04-38		UAP-HF-10047 (02/19/10)	C
497	3734	03.08.04-39		UAP-HF-10047 (02/19/10) UAP-HF-11016 (01/27/11)	C
497	3734	03.08.04-40		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-41		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-42		UAP-HF-10047 (02/19/10)	C
497	3734	03.08.04-43		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-44		UAP-HF-10047 (02/19/10)	A1
497	3734	03.08.04-45		UAP-HF-10047 (02/19/10)	A2
497	3734	03.08.04-46		UAP-HF-10047 (02/19/10)	A2

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
497	3734	03.08.04-47		UAP-HF-10047 (02/19/10) UAP-HF-11016 (01/27/11)	A2
538	4320	03.07.04-03		UAP-HF-10088 (03/30/10)	C
542	4262	03.07.02-006 (-33)		UAP-HF-10086 (03/30/10)	C
542	4262	03.07.02-007 (-34)		UAP-HF-10086 (03/30/10)	C
542	4262	03.07.02-008 (-35)		UAP-HF-11195 (06/29/11)	C
546	4345	03.04.02-6		UAP-HF-10105 (04/16/10)	C
602	4665	03.07.01-05		UAP-HF-10219 (07/27/10)	C
603	4666	03.07.02-009 (-36)		UAP-HF-10238 (08/30/10)	C
603	4666	03.07.02-010 (-37)		UAP-HF-10217 (07/27/10)	A1
625	4924	03.07.02-011		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-012		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-013		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-014		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-015		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-016		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-017		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-018		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-019		UAP-HF-10300 (11/04/10)	A1
625	4924	03.07.02-020		UAP-HF-10300 (11/04/10)	C
625	4924	03.07.02-021		UAP-HF-10300 (11/04/10)	A2
625	4924	03.07.02-022		UAP-HF-10300	A1

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
				(11/04/10)	
625	4924	03.07.02-023		UAP-HF-10300 (11/04/10)	C
625	4924	03.07.02-024		UAP-HF-10300 (11/04/10)	C
632	5041	03.07.04-04		UAP-HF-10280 (10/19/10)	C
643	4967	03.07.01-06 (-12)		UAP-HF-10308 (11/11/10)	C
643	4967	03.07.01-07 (-13)		UAP-HF-10308 (11/11/10)	C
643	4967	03.07.01-08 (-14)		UAP-HF-10308 (11/11/10)	A2
643	4967	03.07.01-09 (-15)		UAP-HF-10308 (11/11/10)	C
643	4967	03.07.01-10 (-16)		UAP-HF-10308 (11/11/10)	C
657	5135	03.08.05-36		UAP-HF-10351 (12/28/10)	C
657	5135	03.08.05-37		UAP-HF-10351 (12/28/10)	A2
657	5135	03.08.05-38		UAP-HF-10351 (12/28/10)	C
657	5135	03.08.05-39		UAP-HF-10351 (12/28/10)	C
657	5135	03.08.05-40		UAP-HF-10351 (12/28/10)	C
657	5135	03.08.05-41		UAP-HF-10351 (12/28/10)	C
658	5130	03.08.04-48		UAP-HF-10352 (12/28/10)	A2
658	5130	03.08.04-49		UAP-HF-10352 (12/28/10)	A2
659	5133	03.07.01-11 (-17)		UAP-HF-10353 (12/28/10)	C
659	5133	03.07.01-12 (-18)		UAP-HF-10353 (12/28/10)	A2
660	5134	03.07.02-025 (-52)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-026 (-53)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-027		UAP-HF-10355	C

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
		(-54)		(12/28/10)	
660	5134	03.07.02-028 (-55)		UAP-HF-10355 (12/28/10)	A1
660	5134	03.07.02-029 (-56)		UAP-HF-10355 (12/28/10)	A1
660	5134	03.07.02-030 (-57)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-031 (-58)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-032 (-59)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-033 (-60)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-034 (-61)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-035 (-62)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-036 (-63)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-037 (-64)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-038 (-65)		UAP-HF-10355 (12/28/10)	C
660	5134	03.07.02-039 (-66)		UAP-HF-10355 (12/28/10)	C
661	5129	03.08.01-11 (-24)		UAP-HF-10357 (12/28/10)	C
661	5129	03.08.01-12 (-25)		UAP-HF-10357 (12/28/10)	A2
661	5129	03.08.01-13 (-26)		UAP-HF-10357 (12/28/10)	C
662	5131	03.08.03-26		UAP-HF-10358 (12/28/10)	C
662	5131	03.08.03-27		UAP-HF-10358 (12/28/10)	A2
662	5131	03.08.03-28		UAP-HF-10358 (12/28/10)	A2
662	5131	03.08.03-29		UAP-HF-10358 (12/28/10)	C
662	5131	03.08.03-30		UAP-HF-10358 (12/28/10)	C
662	5131	03.08.03-31		UAP-HF-10358	A2

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
				(12/28/10)	
662	5131	03.08.03-32		UAP-HF-10358 (12/28/10)	C
676	5209	03.08.03-33		UAP-HF-11045 (02/23/11)	A2
676	5209	03.08.03-34		UAP-HF-11045 (02/23/11)	A2
676	5209	03.08.03-35		UAP-HF-11045 (02/23/11)	C
709	5489	03.07.01-13 (-17)		UAP-HF-11111 (04/19/11)	C
766	5819	03.07.02-040		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-041		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-042		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-043		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-044		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-045		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-046		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-047		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-048		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-049		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-050		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-051		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-052		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-053		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-054		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-055		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-056		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-057		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-058		UAP-HF-11249 (08/01/11)	C

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
766	5819	03.07.02-059		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-060		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-061		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-062		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-063		UAP-HF-11393 (11/16/11)	C
766	5819	03.07.02-064		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-065		UAP-HF-11249 (08/01/11)	C
766	5819	03.07.02-066		UAP-HF-11392 (11/16/11)	C
766	5819	03.07.02-067		UAP-HF-11249 (08/01/11)	C
767	5821	03.08.04-50		UAP-HF-11393 (11/16/11)	C
767	5821	03.08.04-51		UAP-HF-11392 (11/16/11)	C
768	5830	03.08.01-14		UAP-HF-11231 (7/25/11)	C
776	5851	03.07.02-068		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-069		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-070		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-071		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-072		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-073		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-074		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-075		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-076		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-077		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-078		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-079		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-080		UAP-HF-11281 (08/30/11)	C
776	5851	03.07.02-081		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-082		UAP-HF-11281 (08/30/11)	C

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
776	5851	03.07.02-083		UAP-HF-11262 (08/12/11)	C
776	5851	03.07.02-084		UAP-HF-11281 (08/30/11)	C
791	5864	03.07.02-085		UAP-HF-11282 (08/30/11)	C
798	5876	03.07.01-14		UAP-HF-11296 (09/07/11)	C
798	5876	03.07.01-15		UAP-HF-11296 (09/07/11)	C
798	5876	03.07.01-16		UAP-HF-11296 (09/07/11)	C
798	5876	03.07.01-17		UAP-HF-11421 12/7/11	C
799	5877	03.07.03-06		UAP-HF-11297 (09/07/11)	A2
799	5877	03.07.03-07		UAP-HF-11347 (10/07/11)	A2
799	5877	03.07.03-08		UAP-HF-11297 (09/07/11)	A2
799	5877	03.07.03-09		UAP-HF-11297 (09/07/11)	A2
799	5877	03.07.03-10		UAP-HF-11347 (10/07/11)	A2
799	5877	03.07.03-11		UAP-HF-11347 (10/07/11)	A2
800	5879	03.07.02-086		UAP-HF-11298 (09/07/11)	A2
800	5879	03.07.02-087		UAP-HF-11298 (09/07/11)	A2
800	5879	03.07.02-088		UAP-HF-11298 (09/07/11)	A2
800	5879	03.07.02-089		UAP-HF-11298 (09/07/11)	A2
800	5879	03.07.02-090		UAP-HF-11372 (11/1/11)	C
810	5874	03.07.02-091		UAP-HF-11402 (11/22/11)	C
810	5874	03.07.02-092		UAP-HF-11402 (11/22/11)	C
810	5874	03.07.02-093		UAP-HF-11402 (11/22/11)	B
810	5874	03.07.02-094		UAP-HF-11402 (11/22/11)	A2
810	5874	03.07.02-095		UAP-HF-11402 (11/22/11)	A2
810	5874	03.07.02-096		UAP-HF-11402 (11/22/11)	A2
810	5874	03.07.02-097		UAP-HF-11324 (09/22/11)	A2
810	5874	03.07.02-098		UAP-HF-11402 (11/22/11)	C
810	5874	03.07.02-099		UAP-HF-11324 (09/22/11)	B

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (Subnumber)	Submittal Letter	Classification
810	5874	03.07.02-100		UAP-HF-11402 (11/22/11)	C
810	5874	03.07.02-101		UAP-HF-11402 (11/22/11)	A2
810	5874	03.07.02-102		UAP-HF-11324 (09/22/11)	C
810	5874	03.07.02-103		UAP-HF-11402 (11/22/11)	C
810	5874	03.07.02-104		UAP-HF-11402 (11/22/11)	A2
810	5874	03.07.02-105		UAP-HF-11402 (11/22/11)	C
810	5874	03.07.02-106		UAP-HF-11324 (09/22/11)	C
810	5874	03.07.02-107		UAP-HF-11324 (09/22/11)	C
810	5874	03.07.02-108		UAP-HF-11413 (11/30/11)	C
812	5983	03.07.02-109		UAP-HF-11325 (09/22/11)	C
850	6002	03.07.01-19		UAP-HF-11417 12/1/11	B
850	6002	03.07.01-20		UAP-HF-11417 12/1/11	A2
850	6002	03.07.01-21		UAP-HF-11417 12/1/11	A2
850	6002	03.07.01-22		UAP-HF-11417 12/1/11	A2
850	6002	03.07.01-23		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-24		UAP-HF-11417 12/1/11	B
850	6002	03.07.01-25		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-26		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-27		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-28		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-29		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-30		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-31		UAP-HF-11417 12/1/11	C
850	6002	03.07.01-32		UAP-HF-11417 12/1/11	C

RAI Response Assessment Results

Outstanding RAIs Previously On Hold

RAI Letter No.	eRAI No.	Question No.
821	5984	03.07.01-18
776	5851	03.07.02-70
776	5851	03.07.02-72
776	5851	03.07.02-74
776	5851	03.07.02-75
776	5851	03.07.02-76
776	5851	03.07.02-78
776	5851	03.07.02-79
776	5851	03.07.02-80
776	5851	03.07.02-82
776	5851	03.07.02-84
791	5864	03.07.02-85
852	6003	03.07.02-110
852	6003	03.07.02-111
852	6003	03.07.02-112
852	6003	03.07.02-113
852	6003	03.07.02-114
852	6003	03.07.02-115
852	6003	03.07.02-116
852	6003	03.07.02-117
852	6003	03.07.02-118
852	6003	03.07.02-119
852	6003	03.07.02-120
852	6003	03.07.02-121
852	6003	03.07.02-122
852	6003	03.07.02-123
852	6003	03.07.02-124
852	6003	03.07.02-125
852	6003	03.07.02-126
852	6003	03.07.02-127
852	6003	03.07.02-128
852	6003	03.07.02-129
852	6003	03.07.02-130
852	6003	03.07.02-131
852	6003	03.07.02-132
852	6003	03.07.02-133
852	6003	03.07.02-134
852	6003	03.07.02-135
852	6003	03.07.02-136

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.
852	6003	03.07.02-137
852	6003	03.07.02-138
853	6029	03.07.02-139
853	6029	03.07.02-140
853	6029	03.07.02-141
853	6029	03.07.02-142
853	6029	03.07.02-143
853	6029	03.07.02-144
853	6029	03.07.02-145
853	6029	03.07.02-146
853	6029	03.07.02-147
853	6029	03.07.02-148
853	6029	03.07.02-149
853	6029	03.07.02-150
854	6088	03.07.02-151
854	6088	03.07.02-152
854	6088	03.07.02-153
854	6088	03.07.02-154
854	6088	03.07.02-155
854	6088	03.07.02-156
854	6088	03.07.02-157
854	6088	03.07.02-158
854	6088	03.07.02-159
854	6088	03.07.02-160
854	6088	03.07.02-161
854	6088	03.07.02-162
854	6088	03.07.02-163
856	6094	03.07.02-164
856	6094	03.07.02-165
856	6094	03.07.02-166
856	6094	03.07.02-167
856	6094	03.07.02-168
856	6094	03.07.02-169
856	6094	03.07.02-170
856	6094	03.07.02-171
856	6094	03.07.02-172
856	6094	03.07.02-173
856	6094	03.07.02-174
856	6094	03.07.02-175
856	6094	03.07.02-176

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.
856	6094	03.07.02-177
868	6156	03.07.02-178
868	6156	03.07.02-179
855	6090	03.08.02-42
855	6090	03.08.02-43
855	6090	03.08.02-44
855	6090	03.08.02-45

RAI Response Assessment Results

Other Outstanding RAIs

RAI Letter No.	eRAI No.	Question No.	Question No. (subnumber)	Submittal Letter	Response Date
894	6270	03.08.03-56	N/A	N/A	3/31/2012
894	6270	03.08.03-57	N/A	N/A	3/31/2012
894	6270	03.08.03-58	N/A	N/A	3/31/2012
894	6270	03.08.03-59	N/A	N/A	3/31/2012
894	6270	03.08.03-60	N/A	N/A	3/31/2012
894	6270	03.08.03-61	N/A	N/A	3/31/2012
894	6270	03.08.03-62	N/A	N/A	3/31/2012
894	6270	03.08.03-63	N/A	N/A	3/31/2012
894	6270	03.08.03-64	N/A	N/A	3/31/2012
894	6270	03.08.03-65	N/A	N/A	3/31/2012
894	6270	03.08.03-66	N/A	N/A	3/31/2012
905	6311	03.08.03-67	N/A	N/A	4/27/2012
905	6311	03.08.03-68	N/A	N/A	4/27/2012
905	6311	03.08.03-69	N/A	N/A	4/27/2012
905	6311	03.08.03-70	N/A	N/A	4/27/2012
905	6311	03.08.03-71	N/A	N/A	4/27/2012
905	6311	03.08.03-72	N/A	N/A	4/27/2012
905	6311	03.08.03-73	N/A	N/A	4/27/2012
905	6311	03.08.03-74	N/A	N/A	4/27/2012
905	6311	03.08.03-75	N/A	N/A	4/27/2012
905	6311	03.08.03-76	N/A	N/A	4/27/2012
905	6311	03.08.03-77	N/A	N/A	4/27/2012
905	6311	03.08.03-78	N/A	N/A	4/27/2012
905	6311	03.08.03-79	N/A	N/A	4/27/2012
905	6311	03.08.03-80	N/A	N/A	4/27/2012
909	6315	03.07.02-180	N/A	N/A	4/27/2012
909	6315	03.07.02-181	N/A	N/A	4/27/2012
909	6315	03.07.02-182	N/A	N/A	4/27/2012
909	6315	03.07.02-183	N/A	N/A	4/27/2012
909	6315	03.07.02-184	N/A	N/A	4/27/2012
909	6315	03.07.02-185	N/A	N/A	4/27/2012
909	6315	03.07.02-186	N/A	N/A	4/27/2012
909	6315	03.07.02-187	N/A	N/A	4/27/2012
909	6315	03.07.02-188	N/A	N/A	4/27/2012
909	6315	03.07.02-189	N/A	N/A	4/27/2012
909	6315	03.07.02-190	N/A	N/A	4/27/2012
909	6315	03.07.02-191	N/A	N/A	4/27/2012

RAI Response Assessment Results

RAI Letter No.	eRAI No.	Question No.	Question No. (subnumber)	Submittal Letter	Response Date
909	6315	03.07.02-192	N/A	N/A	4/27/2012
909	6315	03.07.02-193	N/A	N/A	4/27/2012
909	6315	03.07.02-194	N/A	N/A	4/27/2012
909	6315	03.07.02-195	N/A	N/A	4/27/2012
909	6315	03.07.02-196	N/A	N/A	4/27/2012
909	6315	03.07.02-197	N/A	N/A	4/27/2012
909	6315	03.07.02-198	N/A	N/A	4/27/2012
909	6315	03.07.02-199	N/A	N/A	4/27/2012
909	6315	03.07.02-200	N/A	N/A	4/27/2012
909	6315	03.07.02-201	N/A	N/A	4/27/2012
909	6315	03.07.02-202	N/A	N/A	4/27/2012
909	6315	03.07.02-203	N/A	N/A	4/27/2012
909	6315	03.07.02-204	N/A	N/A	4/27/2012
909	6315	03.07.02-205	N/A	N/A	4/27/2012
909	6315	03.07.02-206	N/A	N/A	4/27/2012
909	6315	03.07.02-207	N/A	N/A	4/27/2012
909	6315	03.07.02-208	N/A	N/A	4/27/2012
909	6315	03.07.02-209	N/A	N/A	4/27/2012
909	6315	03.07.02-210	N/A	N/A	4/27/2012
909	6315	03.07.02-211	N/A	N/A	4/27/2012
909	6315	03.07.02-212	N/A	N/A	4/27/2012
909	6315	03.07.02-213	N/A	N/A	4/27/2012
909	6315	03.07.02-214	N/A	N/A	4/27/2012
909	6315	03.07.02-215	N/A	N/A	4/27/2012
909	6315	03.07.02-216	N/A	N/A	4/27/2012
909	6315	03.07.02-217	N/A	N/A	4/27/2012
909	6315	03.07.02-218	N/A	N/A	4/27/2012
909	6315	03.07.02-219	N/A	N/A	4/27/2012