

May 7, 2008

APPLICANT: MITSUBISHI HEAVY INDUSTRIES (MHI)  
FACILITY: US-APWR DESIGN CERTIFICATION APPLICATION  
SUBJECT: SUMMARY OF THE APRIL 18, 2008, PUBLIC MEETING BETWEEN MHI AND  
THE U.S. NUCLEAR REGULATORY COMMISSION TO DISCUSS THE USE  
OF GAS TURBINE GENERATORS

On April 18, 2008, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and MHI at NRC Headquarters in Rockville, Maryland. During this meeting, MHI conducted a seminar on the gas turbine generators (GTG) that are part of the US-APWR design certification application. A list of meeting attendees is provided as Enclosure 1. MHI's presentation is shown in Enclosure 2. The NRC staff's questions about the gas turbine generator, which were presented to MHI before the meeting, are shown on Enclosure 3. These handouts can be accessed through the Agencywide Documents Access and Management System (ADAMS) Accession Numbers ML081130514 and ML081130515.

MHI opened its presentation by providing the reasons for using the Kawasaki GTG. MHI stated that the typical gas turbine generator is a very simple rotating engine with fewer parts than a diesel generator, the GTG do not require water for cooling the engine, and they have a higher level of reliability than the diesels. However, the GTG have a 40 second starting time as opposed to the diesel generators that have a 10 second starting time. The GTG that will be used in the US-APWR reactor design are rated at 4500 Kw for 1100 engine hours with an intake temperature of 115 degrees F, or 4950 Kw for 300 engine hours with an intake temperature of 115 degrees F. MHI then presented the layout of the GTG system, including the engine, the governor, the starting air system, the cooling system, and the piping system.

After the completion of its presentation, MHI discussed the NRC staff's questions, shown on Enclosure 3. The NRC staff and MHI engaged in a followup discussion regarding the diversity of the electrical system and whether the GTG had received adequate startup testing.

Members of the public were in attendance, but Public Meeting Feedback forms were not received. Please direct any inquiries to me at 301-415-1544, or [Steven.Monarque@nrc.gov](mailto:Steven.Monarque@nrc.gov).

*/RA/*

Stephen Raul Monarque  
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Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-021

Enclosures:

1. List of Attendees
2. US-APWR Gas Turbine Generator used as Emergency Power Supply  
(ML081130514)
3. US-APWR NRC Questions  
(ML081130515)

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**Attendees**  
**Public Meeting to Discuss**  
**US-APWR Gas Turbine Generators**  
**April 18, 2008**

<b>Name</b>	<b>Affiliation</b>	<b>Name</b>	<b>Affiliation</b>
Jeff Ciocco	NRC/NRO/NMIP	Jerry Purcarello	NRC/NRO/DSRA
Milton Concepcion	NRC/NRO/DCIP	Greg Makar	NRC/NRO/DE/CIB1
Rick Branch	NRC/NRO/DSRA	Joe Mihalcik	Unistar Nuclear Energy
Om Chopra	NRC/NRO/DE/EEB	Lily Ramadan	NRC/NRO/DE/EEB
Amar Pal	NRC/NRO/DE/EEB	Deann Raleigh	Sciencetech
Jim Strnisha	NRC/NRO/DE/CIB1	Masanori Onozuka	Mitsubishi Nuclear Energy Systems (MNES)
Larry Burkhart	NRC/NRO/NMIP	Tutsumi Ishida	MNES
William Poertner	NRC/NRO/DE/CIB1	Yoshiki Ogata	Mitsubishi Heavy Industries (MHI)
Joe Ashcraft	NRC/NRO/DE/ICE2	Makoto Takashima	MHI
David Shun	NRC/NRO/DSRA/SBPB	Joji Hashizume	Kawasaki Heavy Industries (KHI)
Angelo Stubbs	NRC/NRO/DSRA/SBPB	Kenta Shiramasa	KHI
Tim Gilder	Luminant Power	James Bradley Abernathy	Engine Systems Inc.
Matt Weeks	Luminant Power	Larry Hajos	MNES
Raul Hernandez	NRC/NRO/DSRA/SBPB	Shinji Niida	MHI
Gary Hammer	NRC/NRO/DE/CIB1	Satoshi Hanada	MNES
Peter Kang	NRC/NRO/DE/EEB	Shinji Kawanago	MNES
T. R. Tjader	NRC/NRO/DCIP/CTSB	Eiichi Yamaguchi	KHI
Peter Wilson	NRC/NRO/DSRA/SBPB	Nima Ashkebouss	NRC/NRO/DCIP
Tania Martinez-Navedo	NRC/NRO/DE/EEB	Yanely Halave-Velez	NRC/NRO/DCIP
Charles Morrow	SNL/OE	John Segala	NRC/NRO
Ilka T. Berrios	NRC/NRO/DSRA/SBPA		
Jenise Thompson	NRC/NRO/DNRL		
Swagata Som	NRC/NRO/DE/EEB		
Paul Gill	NRC/NRO/DE/EEB		
Dayna Dority	NRC/NRO/DCIP/CTSB		
Alan Levin	AREVA		
David Bessette	NRC/ACRS		
Devender Reddy	NRC/NRO/DSRA/SBPA		
David Curtis	NRC/NRO/DE/EEB		
Josh Wilson	NRC/NRO/DSRA/SBPB		
William Ward	NRC/NRO/DNRL/NMIP		
Joe Marshall	NRC/NRO/CTSB		
Andy DuBouchet	NRC/NRO/DCIP		
Chang-Yang Li	NRC/NRO/DSRA/SBPB		
Stephen Monarque	NRC/NRO/DNRL		
Douglas Dodson	NRC/NRO/DSRA/SBPA		

Enclosure

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(Revised 04/14/2008)

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