General Information or Other (PAR) Event # 45500

Rep Org: WARTSILA FRANCE S.A.S		**Notification Date / Time:** 11/16/2009 14:27	(EST)
Supplier: WARTSILA FRANCE S.A.S		**Event Date / Time:** 11/16/2009	(EST)
		Last Modification: 11/16/2009	
Region:	**Docket #:**		
City:	**Agreement State:**	No	
County:	**License #:**		
State:			
NRC Notified by: DANIEL DIETRICH	**Notifications:**	RAYMOND MCKINLEY	R1DO
HQ Ops Officer: MARK ABRAMOVITZ		ERIC DUNCAN	R3DO
Emergency Class: NON EMERGENCY			
10 CFR Section:			
21.21 UNSPECIFIED PARAGRAPH			

PART 21 NOTIFICATION - POTENTIAL FAILURE IN EMERGENCY DIESEL GENERATOR BEARINGS

The following report was received via facsimile:

"PART 21 Involving Wartsila type SACM UD45 Emergency Diesel Generating set big end bearings installed in the US nuclear power stations of Constellation Energy at Calvert Cliffs and Xcel Energy at Prairie Island.

"COMPONENT: Big end bearing DLT141885 all batches & DLT123351 batches A2, F2, J2 on Wartsila type SACM UD45 emergency diesel generating sets.

"DISCUSSION: Three of four incidents which have been reported to Wartsila France are related to UD45 diesel engines operating at 1500 rpm in nuclear installations. Big end bearing damage can result in non-availability of the diesel engine. Wartsila France has been working on the root cause analysis after the first reported failure and has given an overall recommendation in October 2009 regarding the risks of using the above mentioned big end bearings on diesel engines running at 1500 rpm (50 Hz applications). An additional technical evaluation has been issued in November 2009 after testing a new big end bearing. The evaluation has determined that this is potentially a reportable defect as defined by10CFR21.

"AFFECTED USERS: UD45 engines

"CORRECTIVE ACTION: Being unable to predict the occurrence of such a random event, Wartsila France has advised its customers to: identify the emergency diesel generating sets equipped with big end bearings above referenced in COMPONENT, stop the utilization of big end bearings above referenced in COMPONENT, replace all above referenced in COMPONENT big end bearings by a new reference PAAG129161 which has been qualified after extensive running tests on a 1500 rpm engine. Wartsila has not recorded such a situation on other

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General Information or Other (PAR) Event # 45500

UD45 diesel engines running at a lower speed of 1200 rpm (60 Hz applications) which are installed as Emergency Generating sets in nuclear power plants. Nevertheless Wartsila France recommendation if components have also been identified in 1200 rpm units installed in US nuclear power plants or if such components are held in stock, is to replace them with the new reference big end bearing PAAG129161."

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WÄRTSILÄ

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To:	whom it may concern	From:	**Daniel DIETRICH**
Company:	U.S. Nuclear Regulatory Commission		Ref.: QSE 091116 / 01
Fax No.:	01 301 816 51 51	Date:	November 16th, 2009
Copy to:		Pages (incl.):	2
Subject:	Part 21 communication		

☐ Urgent ☐ For Review ☒ For Information ☐ Please comment ☐ Please Reply – ASAP

PART 21 Involving Wärtsilä type SACM UD45 Emergency Diesel Generating sets Big end Bearings installed in the US Nuclear Power Stations of Constellation Energy at Calvert Cliffs and Xcel Energy at Prairies Island.

The following information is provided via fax and will be transmitted by regular mail within three days.

"COMPONENT: Big end Bearing DLT141885 all batches & DLT123351 batches A2, F2, J2 on Wärtsilä type SACM UD45 Emergency Diesel Generating sets.

"DISCUSSION: Three of four incidents which have been reported to Wärtsilä France are related to UD45 Diesel engines operating at 1500 rpm in nuclear installations. Big end Bearings damage can result in non-availability of the Diesel engine.

Wärtsilä France has been working on the root cause analysis after the first reported failure and has given an overall recommendation in October 2009 regarding the risks of using the above mentioned Big end Bearings on Diesel engines running at 1500 rpm (50 Hz applications).

An additional technical evaluation has been issued in November 2009 after testing a new Big end Bearing.

The actual evaluation on today is determining that this is potentially to be a reportable defect as defined by 10CFR21.

"AFFECTED USERS: UD45 engines

"CORRECTIVE ACTION: Being unable to predict the occurrence of such a random event, Wärtsilä France has advised its customers to:

- identify the Emergency Diesel Generating sets equipped with Big end Bearings above referenced in COMPONENT,
- stop the utilisation of Big end Bearings above referenced in COMPONENT.
- replace all above referenced in COMPONENT Big end Bearings by a new reference PAAG129161 which has been qualified after extensive running tests on a 1500 rpm engine,

Wärtsilä has not recorded, such a situation on other UD45 Diesel engines running at a lower speed of 1200 rpm (60 Hz applications) which are installed as Emergency Generating sets in Nuclear Power Plants.

Nevertheless Wärtsilä France recommendation if COMPONENTS have also been identified in 1200 rpm units installed in US Nuclear Power Plant or if such COMPONENTS are held in stock, is to replace them by the new reference Big end Bearing PAAG129161.

Best regards.