SULZER

Sulzer Pumps
Sulzer Pumps (US) Inc.
Karl Strand
Quality & Environmental Manager
2800 NW Front Ave.
Portland, Oregon
Phone 503,721,5792
Fax 503,226,5283
karl.strand@sulzer.com

21 March 2006

Date

U.S. Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

ATTN: Brendan Moroney

Subject: 10 CFR Part 21 Notification

Ref: FP&L TPN supplied Ingersall Rand Auxiliary Feed Pump #0601001 FP&L PO# 67845

Dear Sir or Madam,

Per the requirements of 10CFR Part 21, this letter has been written to inform you of a reportable condition in regards to a pump repaired for Florida Power & Light in use at the Turkey Point Nuclear Facility.

While repairing a pump at the Sulzer Pumps (US) Inc. Shreveport Service Center, the drive end bearing assembly was installed incorrectly which resulted in an internal oil passage blockage and the possibility of premature bearing failure.

An internal investigation committee was convened 20 March, 2006 per the requirements of 10CFR Part 21 and the evaluation and results of the investigation as well as corrective action are attached.

This notification is also being sent to Florida Power & Light.

Sincerely,

Karl Strand

Quality & Environmental Manager

Sulzer Pumps (US) Inc.

KarlStranes

10 CFR, PART 21 INTERNAL EVALUATION FORM

PURPOSE:

The purpose of this form is to support the requirements of 10CFR, Part 21 and SPUSA's Evaluation Procedure A14.2. The documentation should be via this form with all necessary backup documentation attached and maintained in the 10CFR, Part 21 file under the direction of the Corporate Quality & Environmental Manager.

SCOPE:

This form shall be used in all conditions which have been brought to the attention of the 10CFR, Part 21 Committee.

RESPONSIBILITY:

The responsibility for assurance of completion of this form and the subsequent actions and filing will be that of the Corporate Quality & Environmental Manager.

PUMP SERIAL NUMBER(S)		FP&I	FP&L IPN supplied I-R CNIA Aux. Feed Pump #0601001					
PARTS ORDER NUMBER(S)		Sulze	Sulzer Order No. 08701898, FP&L PO # 67845,					
REPORTABLE	YES X NO]	10:	NRC	X LICENSEES X IPN Only			
(A) IDENTIFIC	ATION OF ITEM OR	PROCE	SS AF	FECTEL);			
The Turkey Point N	uclear Plant Aux. Feed	Pump o	hive e	nd journa	al bearing was installed incor-			
rectly (radial orienta	tion) which resulted in	interna	l oil pa	ssage blo	ockage and the possibility of			
	ilure due to lack of lub							
		•		•	•			
"								
					 			

(B) DESCRIPTION OF THE CONDITION:

The plant reported to Sulzet on 11/8/05 that the DE journal bearing in one of the repaired pumps had been installed incorrectly so that the oil passage between the housing and journal obstructed the free flow of lube oil to the bearing journal. It was postulated the premature bearing failure was due to the lack of lubrication as a direct result of improper assembly of the DE journal bearing. Sulzer had generated an assembly procedure based on input from an FP&L supplied procedure, and enhanced the assembly procedure; however, neither the FP&L nor Sulzer procedure included a verification of bearing radial orientation. Regardless, the installation of the journal bearing should have been performed properly. The improper installation of the bearing (radial orientation) was due to human error. Sulzer had repaired two other identical TPN Aux Feed pumps using the same procedure, and subsequent inspections confirmed the DE journal bearing had been correctly installed in the other pumps Sulzer had repaired. This was an isolated case of human error coupled with a procedure that, viewed in hindsight, can be updated to include a verification of bearing orientation (barrier). Given the obvious oil passage design configuration coupled with the proper assembly of the other two pumps, we do not believe this is a generic issue.

(C) I	WHO REPORTED THE	CONDIT	ION:			
NAME:	A. Washburn	_ TITLE:	Engineering Manager	_ DATE:	11/9/05	
(D) E	VALUATED BY 10 C	FR, PART	21 COMMITTEE:			
Chairper	son:					
NAME:	K. Strand	TIILE:	Manager, Corp Quality & Environmental	DAIE:	3/20/06	
Members:	•					
NAME:	A. Washburn	TITLE:	Engineering Manager	DATE:	3/20/06	
NAME:	J. Bohlman	TITLE:	S1. Project Engineer	DATE:	3/20/06	
NAME:	J. Wood	TITLE:	Project Mgr, Quality	DATE:	3/20/06 -	
NAME:	D. Spencer	IIILE:	Mgr, Nuclear Services	DATE:	3/20/06	
NAME:	•	TITLE:		DATE:		
NAME:		TITLE:		DATE:		
Sulzer is no similar asse- other manu assembly. I bearing inst instructions (NOTE: IF NOTED, M	embly error due to its confacturer's pump designs he only other pump conallation. In designs that specify proper orientation of LIKE CONDITION LAKE SURE ALL ASPI	e of a like on figuration incorporation (i.e. factors) OR POIL ECTS OF	condition. The TE bearing assort difference. As previously me e features and instructions to phere similar improper assemble duplex pairs of ball bearings ce-to-face or back-to-back). ENTIAL FOR A SIMILAR COTHE CONDITION IS REVIED PUMP OR APPLICATION.	entioned Sulpreclude income in the assemble on the assemble of the assemble on the assemble of the assemble on	zer and correct e is ball oly	
The imprope		et pump res	sulted in the potential for pren solated case involving human			
			inspection verification (barrie			
	ably orientation would					
It is our opini	on the issue meets the c	niteria for	defect reporting per the requir	ements of	•	
10CFR Part 21. Since the incident was isolated and non-generic only the NRC and the utility will						
be notified.	•					

SULZER PUMPS	(US)	INC.
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SULZER PUMPS (US) INC.	1 50051
NON-CONFORMANCE REPORT (NCR)	Жиф. 150051
Porm \$0561-0 Ref Procedure QNS-01 Note: All notations/documentation to be in black or blue lak. Sheet	of
Part Description Assembly (Item) No. Serial No. Sales Order No. (Highest)	Work Order No.
Bearm, Inboard 306 0601001 99701999 Drawing Number Rev Product Material Pattern No. Customer Supplier Name	P.O.No.
Drawing Number Rev Product Material Pattern No. Customer Supplier Name N/A FPL Turkey Point N/A	
Qty on Order Qty Rejected Part Status Compl. X Incompl. Q.C. Order X	n Q.C. Order 🗌
Component No. CUTAM Purp Last Oper. Compl. N/A Sulzer Material Code (Q/QS) No	NA
LINE QTY REPORT THE REQUIRED CONDITION AND THE ACTUAL CONDITION OF THE NON-CONFO	ALANCE
1 1 See Attached	
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SAFETY RELATED	
SAFETY RELATED	RDER
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Reported By: (Trim Native) Dis Washburn Dept.: CSS Date: 12/4/05 Quality	Dept.: CAS
ROOT CAUSE STATEMENT BY RESPONSIBLE DEPT. – PERSON ASSIGNED TO:	
MECHANIC INCORRECTLY INCTALLED BEARING, 90 de	reks.
SULZER HAS REARWE WITH ANTI ROTATEN INSTALLED GO dec	res from top
	REPURE AC COME
Responsibility 6677 Error Gode: 909 Root Cause (Code: Code:	ier SSC
Approved By: (Quality Dept. Only) Date:	12-05-05
LINE ACTION TO CORRECT (Check one) USE AS IS REPAR REWORK RETURN TO SUPPLIER	OTHER SCRAP
DISPOSITION AUTHORIZATION, SEE PROCEDURE QNS-01, DISPOSITION AND APPROVAL REQUIRE	ENIS TABLE
1 Sty Attached,	
	
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	Estimated Cost
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Disposition By: (Print Name) / La Washburn Date: 12/4/05 Reprovat. AND/OR CONCURRENCE, SEE PROCEDURE QNS-01, DISPOSITION AND APPROVAL REQUIRED	
[Quality Department shall check the boxes below for required signatures]	
Signature Date 12.4.05 Specify Signature	Date
Design Engineer (Letter & Letter & Letter & Other ()	
Purchasing Other () Other	
Check box if 10CFR Part 21 is reportable NonConformance Closed (By Quality Dept. Int	23
eported By: Date: Closed By:	
CORRECTIVE ACTION REQUIRED? YES A NO CONTROL OF THE PROPERTY O	
ORRECTIVE ACTION TO PREVENT ROOT CAUSE RECURRENCE:	
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sponded By: Date: Implemention Date:	
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QUALITY DEPARTMENT/WHEN COMPLETED	



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Art Washburn	1	SN:	SC Manager of Eng			/2 /05	·
Issued To			ment/Company	REQUIR	ED RESPO	NS DU	E DATE
NON-CONFORMING	CONDIT	TION OR PR	ROBLEM:	•			
See attached NCR	150051 f	or detailed	description of N	onconformi	ng Conditio	n :	
IMMEDIATE ACTIO	N TO CO	RRECT NO	NCONFORMING	CONDITIO	N OR PROI	BLEM:	· · · · · · · · · · · · · · · · · · ·
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