

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (O) OE		Schedule Type: (A) Normal Work Management		CA Number: 1
	Corrective Action Type: (OT) Other		Cause Code: (NA) Not Applicable				Resp Org: PE
	Description: 1. Determine if Davis-Besse should issue an Operating Experience (OE) Report according to NG-NA-00305, step 6.7.3. (The OE coordinator, John Johnson at 8345 can provide assistance.) 2. If no OE report should be issued, document the reasons why in the CAF Implementation Response section. 3. If an OE report should be issued, arrange to have an OE report issued by Davis-Besse within 50 days after the event. Notification of the OE coordinator, John Johnson at 8345 or jjjohnson@firstenergycorp.com is suggested to assist in arranging the action. This assignment was made by the MRB and is due at the completion of the CR evaluation. The 50-day target is from an INPO recommendation.						
	Completed By: NOWICKI, K		Organization: PI	Date: 8/5/2002	Phone: 8590	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number: <input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>		Other Tracking # N/A		Corrective Action Due Date: 10/30/2002		
	Approval: (Enter Name and Sign) NOWICKI, K				Section:	Date: 8/5/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response: Per discussion with the System Engineer, it has been determined that an OE shall be issued for this concern.						
	Corrective Action Implementation Date: <u>12/13/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: <u>SCOTT, L</u> Date: <u>12/9/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: <u>HOVLAND, B</u> Date: <u>12/21/2002</u>						
Q U A R A N T I F I E R	Comments:						
	Approval:				Date:		

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CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (F) WORK REQUEST / WORK ORDER		Schedule Type: (C) Refuel Outage Required		CA Number: 2
	Corrective Action Type: (RA) Remedial Action		Cause Code: (C02) Equip. condition				Resp Org: PE
	Description: The cover plate for the Reactor Coolant Pump P36-1 is being chamfered per WO 02-004137-042, ECR 02-805-00 and CR 02-09674. PE to determine if work is acceptable.						
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number: <input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>		Other Tracking # 02-004137-42		Corrective Action Due Date: 12/19/2002		
	Approval: (Enter Name and Sign) GALLATIN, B				Section:	Date: 12/19/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response: CR 02-09674 will complete this action. No further action required.						
	Corrective Action Implementation Date: <u>12/19/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: <u>GALLATIN, B</u> Date: <u>12/19/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: <u>GALLATIN, B</u> Date: <u>12/19/2002</u>						
Q U E R I E R	Comments:						
	Approval:					Date:	

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA	Action Type: (F) WORK REQUEST / WORK ORDER	Schedule Type: (C) Refuel Outage Required			CA Number: 3	
	Corrective Action Type: (RA) Remedial Action	Cause Code: (C02) Equip. condition				Resp Org: PE	
	Description: The cover plate for the Reactor Coolant Pump P36-2 is being chamfered per WO 02-004138-028, ECR 02-805-00 and CR 02-09674. PE to determine if work is acceptable.						
	Completed By: SCOTT, L	Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number: <input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>		Other Tracking # 02-004138-28		Corrective Action Due Date: 12/19/2002		
	Approval: (Enter Name and Sign) GALLATIN, B			Section:	Date: 12/19/2002		
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response: CR 02-09674 will complete this action. No further action required.						
	Corrective Action Implementation Date: <u>12/19/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: <u>GALLATIN, B</u> Date: <u>12/19/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
Q U E R I E S	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: <u>GALLATIN, B</u> Date: <u>12/19/2002</u>						
	Comments:						
	Approval:					Date:	

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (G) EVALUATION		Schedule Type: (A) Normal Work Management		CA Number: 4
	Corrective Action Type: (RA) Remedial Action		Cause Code: (C02) Equip. condition				Resp Org: PES
	Description: Plant Engineering to quantify leakage at the casing-to-cover gaskets of P36-3. Troubleshooting to be completed during this upcoming startup. This task should be worked in conjunction with WO 02-002148-000. If any leakage is found, close this CA and create a new CR to Plant Engineering to evaluate results.						
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number:		<input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>		Other Tracking # WR 02-005193		Corrective Action Due Date: 2/7/2003
	Approval: (Enter Name and Sign) GALLATIN, B				Section: PES	Date: 12/19/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response:						
	Corrective Action Implementation Date: _____						
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: _____ Date: _____						
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: _____ Date: _____						
Q V U E A R L I F I E R	Comments:						
	Approval:					Date:	

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (G) EVALUATION		Schedule Type: (A) Normal Work Management		CA Number: 5
	Corrective Action Type: (RA) Remedial Action		Cause Code: (C02) Equip. condition				Resp Org: PES
	Description: Plant Engineering to quantify leakage at the casing-to-cover gaskets of P36-4. Troubleshooting to be completed during this upcoming startup. This task should be worked in conjunction with WO 02-002148-000. If any leakage is found, close this CA and create a new CR to Plant Engineering to evaluate results.						
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, <input type="checkbox"/> 1R Enter the Refueling Outage number: <input type="checkbox"/> 2R <u>N/A</u>		Other Tracking # WR 02-005194		Corrective Action Due Date: 2/7/2003		
	Approval: (Enter Name and Sign) GALLATIN, B				Section: PES	Date: 12/19/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response:						
	Corrective Action Implementation Date: _____						
	<input type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: _____ Date: _____						
	<input type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
	<input type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: _____ Date: _____						
Q U E R I E R	Comments:						
	Approval:					Date:	

CORRECTIVE ACTION					CR Number: 02-03668	
NOP-LP-2001-05						
O R I G I N A T O R	CR Category: CA	Action Type: (J) ROLL-OVER	Schedule Type: (A) Normal Work Management		CA Number: 6	
	Corrective Action Type: (EA) Enhancement Action		Cause Code: (NA) Not Applicable			Resp Org: PE
	Description: This CA is rolled over to CR 02-07525 for resolution Problem: The failure to adequately address the chronic/persistent leakage of the reactor coolant pumps casing-to-cover gaskets. Cause: The low expectations and standards and a general willingness to accept RCS leakage by engineering. Issues of this nature, (failure to adequately address problems) have been discussed and will be resolved per resolution of CR 02-07525. It has been agreed that in the future, an assessment of current Engineering capability would be formally documented, and that the actions taken in response to identified weaknesses would be assessed to ensure their adequacy for plant restart. This is further reinforced by the adoption of FENOC Engineering Principles and Expectations.					
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	If a Refueling Outage is required, Enter the Refueling Outage number: <input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>		Other Tracking # CR 02-07525		Corrective Action Due Date: 12/19/2002	
ACC- EPT	Approval: (Enter Name and Sign) GALLATIN, B				Section:	Date: 12/19/2002

CORRECTIVE ACTION		CR Number: 02-03668
NOP-LP-2001-05		
QUALITY	Quality Organization Approval:	Date:
IMPLEMENTING ORGANIZATION	Response: This CA is rolled over to CR 02-07525 for resolution	
	Corrective Action Implementation Date: 12/19/2002	
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: GALLATIN, B Date: 12/19/2002	
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: Date:	
	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: GALLATIN, B Date: 12/19/2002	
QUALITY REQUIREMENTS	Comments:	
	Approval: Date:	

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (F) WORK REQUEST / WORK ORDER		Schedule Type: (A) Normal Work Management		CA Number: 8
	Corrective Action Type: (EA) Enhancement Action		Cause Code: (NA) Not Applicable				Resp Org: OMWC
	Description: WO# 02-007529-000 Maintenance to Replace the inner and outer casing-to-cover gaskets on the P36-4 pump and implement ECR 02-805-00 for the pump cover during RF014. This item to be completed per WO 02-007529-000.						
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number:		<input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>	Other Tracking # 02-007529-000		Corrective Action Due Date: 6/1/2005	
	Approval: (Enter Name and Sign) RING, L				Section: OMWC	Date: 12/11/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response:						
	Corrective Action Implementation Date: _____						
	<input type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: _____ Date: _____						
	<input type="checkbox"/> Signature indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
Q U E R I F I E R	<input type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: _____ Date: _____						
	Comments:						
Approval: _____ Date: _____							

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (O) OE		Schedule Type: (A) Normal Work Management		CA Number: 9
	Corrective Action Type: (OT) Other		Cause Code: (NA) Not Applicable				Resp Org: PE
	Description: Plant Engineering to Issue Preliminary Operating Experience (OE) report						
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number: <input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>			Other Tracking # N/A		Corrective Action Due Date: 12/13/2002	
	Approval: (Enter Name and Sign) GALLATIN, B				Section:	Date: 12/19/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response: OE report created and forwarded to J.J. Johnson on 12/09/02 via E-mail. This CA, completes CA-1 of this CR.						
	Corrective Action Implementation Date: <u>12/13/2002</u>						
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: SCOTT, L Date: 12/9/2002						
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: Date:						
	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: GALLATIN, B Date: 12/19/2002						
Q U E R I E S	Comments:						
	Approval: Date:						

CORRECTIVE ACTION						CR Number: 02-03668	
NOP-LP-2001-05							
O R I G I N A T O R	CR Category: CA		Action Type: (O) OE		Schedule Type: (A) Normal Work Management		CA Number: 10
	Corrective Action Type: (OT) Other		Cause Code: (NA) Not Applicable				Resp Org: PES
	Description: PE to issue follow-up OE report. This action to remain open until The OE report is issued.						
	Completed By: SCOTT, L		Organization: PE	Date: 12/9/2002	Phone: 2445	Attachments: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ACC- EPT	If a Refueling Outage is required, Enter the Refueling Outage number:		<input type="checkbox"/> 1R <input type="checkbox"/> 2R <u>N/A</u>	Other Tracking # N/A	Corrective Action Due Date: 3/30/2004		
	Approval: (Enter Name and Sign) GALLATIN, B				Section: PES	Date: 12/19/2002	
QUAL- ITY	Quality Organization Approval:					Date:	
I M P L E M E N T I N G O R G	Response:						
	Corrective Action Implementation Date: _____						
	<input checked="" type="checkbox"/> Signature Indicates Corrective Action complete: Completed By: _____ Date: _____						
	<input checked="" type="checkbox"/> Signature Indicates verification for SCAQ CRs: Implementing Organization Supervisor: _____ Date: _____						
Q U E R I E S	<input checked="" type="checkbox"/> Enter Name and Sign: Implementing Organization Approval: _____ Date: _____						
	Comments:						
	Approval:					Date:	

CAUSE ANALYSIS

CR Number

03-00049

NOP-LP-2001-03

Troubleshooting was performed under WOs 02-004138-015 and 03-000047-000.

These activities identified that the originally recorded configuration for the T leads was not correct and as such the configuration for the CT leads was not correct. The wiring was correct for the identified configuration. When the motor was energized, the differential relay sensed a high imbalance because it was comparing signals from different phases and tripped the breaker.

Discussions with personnel familiar with breakers opening under starting surge conditions identified that long term over current relays frequently pick up after such trips. A review of Calculation C-EE-003.02-002 identified that the device should not have picked up at any current before 10 seconds after the breaker was closed. Checks of these devices confirmed that their setpoints were correct.

A review of uncoupled start up current data of RCP 1-1 from 1996 confirmed that 1800 Amps is a typical starting current value.

Inspections and tests of breaker HB03 and the motor MP36-2 identified no deficiencies from either component.

Apparent Cause:

The configuration of T - Leads at the motor was incorrectly recorded. This lead to the CTs feeding the differential relay to be incorrectly configured and tripping the breaker after it was closed. Contributing to this event was a lack of self checking or peer checking of T - lead configuration.

Process Code	Trend Codes					
WMO	(If cause is T or W)					
Activity Code	Cause Code		Component Code		Cause Org	
2200	Type	ID#	Type	ID#	MAIN	Maintenance
Primary	F07	Error Detection				
Secondary						
Tertiary						

Completed By: _____ Date: _____