

Part 21 (PAR)

Event # 50703

Rep Org: BALDOR ELECTRIC CO.	Notification Date / Time: 12/23/2014 13:55 (EST)		
Supplier: BALDOR ELECTRIC CO.	Event Date / Time: 10/29/2014 (EST)		
	Last Modification: 12/23/2014		
Region: 1	Docket #:		
City: FLOWERY BRANCH	Agreement State:	Yes	
County:	License #:		
State: GA			
NRC Notified by: JAMES THIGPEN	Notifications: MARC FERDAS	R1DO	
HQ Ops Officer: HOWIE CROUCH	JONATHAN BARTLEY	R2DO	
Emergency Class: NON EMERGENCY	PART 21 GROUP	EMAIL	
10 CFR Section: 21.21(d)(3)(i)	DEFECTS AND NONCOMPLIANCE		

PART 21 NOTIFICATION - BALDOR AC MOTORS WITH POTENTIAL BEARING END CAP ALIGNMENT ISSUES

The supplier, Baldor Electric Company, identified a potential fitment issue between the motor shaft journal, bearing cap and bracket that could allow the bearing cap to cock in the bracket. This misalignment would cause the motor to fail within hours of being placed in service. Therefore, all motors in service for greater than 24 hours would not be affected by the defect.

The supplier has notified its vendor and provided corrective actions and/or parts replacement as appropriate.

IE19
MRR

FAX



Date 12/23/2014

Number of pages including cover sheet 3

To: NRC Operations Center

Phone 301-816-5100

Fax Phone 301-816-5151

Cc: _____

From: James Thigpen

Quality Assurance Mgr.

Baldor Electric Co.
4349 Avery Drive
PO Box 250
Flowery Branch, Ga. 30542

email jlthigpen@baldor.abb.com

Phone (678) 947-7272

Fax Phone 678-947-7295

Remarks:

Urgent For your review Reply ASAP Please comment

I have attached a Nuclear Nonconformance Report which I am submitting in accordance with our quality plan procedure RGG SOP-0047 rev. 3, Procedure for 10CFR21 Implementation. I will need to know what event number you have assigned to this nonconformance report so I can complete a formal notification as required by the procedures.

Thank you,
James Thigpen

December 23, 2014

TITLE: Initial Notification Report-

**To: NRC Operations Center
Phone 301-816-5100
Fax 301-816-5151**

Dear Sir or Madam:

NUCLEAR NONCONFORMANCE REPORT

**1. CUSTOMER: HOWDEN NORTH AMERICA INC.
7909 PARKLANE ROAD, SUITE 300
COLUMBIA SC 29223**

**2. PURCHASE ORDER: 1) 39679 – QTY 1
1) 44617 – QTY 2
1) 48105 – QTY 2
1) 012747, L/I 1 – QTY 3
1) 022355 – QTY 2**

3. PART/COMPONENT NAME: AC MOTORS

**4. PART/COMPONENT #: 1) B505968-010 T1 Howden P/N 600287-28R
2) B656588-010 T1&T2 Howden P/N 600287-28R
3) B782464-010 T1&T2 Howden P/N 600287-28R
4) B952117-010 T1, T2&T3 Howden P/N 600287-28R
5) B1092454-010 T1 Howden P/N 600287-28R
6) B1092454-010 T2 Howden P/N 600287-28R**

5. QUANTITY ON HAND – 1 SHIPPED - 9

**6. LOCATION OF ALL UNITS 1) Motor sold to PPL Susquehanna on PO 00452564
2) Motors sold to PPL Susquehanna on PO 00498365
3) Motors sold to PPL Susquehanna on PO 00527158
4) Motors sold to PPL Susquehanna on PO 00557516
5) Motor sold to PPL Susquehanna on PO 00584975
6) Motor at Baldor Gainesville Motor Plant (Qty 1)**

7. DATE NONCONFORMANCE ASCERTAINED: October 29, 2014

- 8. DESCRIPTION OF DEFECT/NONCONFORMANCE:** This is a reportable 10CFR21 notification because we believe it is possible that the 9 identified 1E motors shipped by Baldor Electric, contain a design where the buildup of tolerances between the shaft journal, bearing cap and bracket could potentially allow the bearing cap to cock in the bracket causing a 0.001" interference fit on one side of the cap in a worst case scenario.
- 9. CORRECTIVE ACTION TAKEN:** Baldor has notified Howden North America's Quality Assurance of our findings on the motor returned to Baldor for 10CFR21 evaluation. A review was completed by design engineering to determine this failure was due to a collection of events that occurred simultaneously, and if were to happen again, would result in failure within hours of the motor being powered. Baldor's solution to this worst case scenario is to open the clearances of the shaft bore in the cap up from a 0.008" radial clearance by design, to the maximum 0.012" radial clearance for 1.5" fit length for UL XP standards. This would eliminate any possibility of a rub while the cap is mounted in the cap journal of the bracket. All motors that have been in service for more than 24 hours do not require alteration of the bearing cap. Any others that have not been placed into service should have the opposite drive end bearing cap replaced to ensure this failure will not occur. The corrective action CAR-00451 Howden: Request for 10CFR21 Evaluation for bearing lockdown was completed and closed on 12/23/14.
- 10. ANY ADVICE RELATED TO DEFECT/NONCONFORMANCE:** All motors that have been in service for more than 24 hours do not require alteration of the bearing cap. Any others that have not been placed into service should have the opposite drive end bearing cap replaced with a newly designed cap (603295-74B) to ensure this failure could not occur.
- 11. INDIVIDUAL COMPLETING THIS REPORT**
- James Thigpen
QA Manager, Baldor Electric
Flowery Branch, GA 30542
December 23, 2014