

BALDOR

A MEMBER OF THE ABB GROUP

Baldor Electric Company
P. O. Box 250, 4349 Avery Drive
Flowery Branch, GA 30542 USA
Tel 678.947.7350

January 23, 2015

To: Document Control Desk
United States Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir or Madam:

In accordance with Title 10, Code of Federal Regulations, Part 21, Baldor Electric is making Written and Final Notification as required by 10CFR21.21 for event #50703.

*** This is a revision to the final notification dated 1/20/15 which incorrectly stated the T2 motor as the motor that failed and was returned to Baldor for evaluation. (see table under Section E).**

A. Name and address of the individual informing the NRC.

James Thigpen
Quality Assurance Manager
Baldor Electric/Gainesville Motor Plant
4349 Avery Drive
Flowery Branch, Georgia 30506

B. Identification of Basic Component being Supplied.

AC Motor

C. Name of firm supplying basic component.

Baldor Electric/Gainesville Motor Plant
4349 Avery Drive
Flowery Branch, Georgia 30542

D. Nature of the defect, deviation, or failure to comply.

Subject: Nuclear Nonconformance Event Number 50703

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.

IEI9
MRR

STEPS TAKEN TO PREVENT FUTURE OCCURRENCES

A review was completed by design engineering to determine this design issue has only occurred for the Baldor Specification ID #'s associated with Howden Part Number 600287-28R, of which Baldor has only shipped the 10 motors identified below of which 9 remain in the customers possession. Baldor has the remaining motor in our possession and it is being replaced with one using the revised design developed as our corrective action response.

Baldor has notified Howden North America Inc. Company's Quality Assurance of our findings. They have in turn contacted their customer, PPL Susquehanna, and determined all 9 motors in their possession have been in service for over 24 hours with no problems.

The design of the shaft/bearing cap radial clearance has been increased to correct the potential safety issue. Motor Bill of materials for the effected Baldor designs have been revised to call for bearing cap part number 603295-74B on any future shipment.

CONCLUSION

The one motor that failed during initial customer testing is in process of being repaired or replaced with the new designed bearing cap.

The revision of the design for Spec. ID's B505968, B656588, B782464, B952117 and B1092454 has been implemented and verified to be correct.

The end user PPL Susquehanna has confirmed to Howden North America Inc. that the remaining 9 motors have been in service for over 24 hours with no problems, and therefore do not require any alteration to the bearing cap in order to perform their intended use safely.

D. The Discovery Date.

October 29, 2014.



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E. The Quantity and Location of Motors Affected.

PART/COMPONENT NUMBER:

Customer Name	Customer PO #	Motor Serial #	End User / Location	Status
Howden North America Inc.	39679	B505968-010 T1	PPL Susquehanna	Contacted Todd.Gunvalson@Howden.com and confirmed all 9 motors have been running in service for over 24 hours with no problems.
	44617	B656588-010 T1	PPL Susquehanna	
		B656588-010 T1	PPL Susquehanna	
	48105	B782464-010 T1	PPL Susquehanna	
		B782464-010 T2	PPL Susquehanna	
	012747 L/I 1	B952117-010 T1	PPL Susquehanna	
		B952117-010 T2	PPL Susquehanna	
		B952117-010 T3	PPL Susquehanna	
	022355	B1092454-010 T2*	PPL Susquehanna	
		B1092454-010 T1*	Baldor Electric	Motor will ship to Howden with new design , new serial number

* This is a revision to the final notification dated 1/20/15 which incorrectly stated the T2 motor as the motor that failed and was returned to Baldor for evaluation.

F. The Corrective Action which has been completed.

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.

Baldor initiated corrective action per Baldor CAR-00451 on December 15, 2014 which was completed and received final approval by James Thigpen QA manager Baldor. Final

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verification of actions will be and verified for effectiveness
by 3/23/2015.

G. Other Information.

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.

Sincerely,



Mr. James Thigpen

Quality Assurance Manager, Gainesville Motor Plant
Baldor Electric Co.