

02E-045 (1/2)



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OFFICE OF  
DEFECTS INVESTIGATION

July 22, 2002

Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
400 7<sup>th</sup> Street, SW  
Washington, DC 20590

Dear Associate Administrator:

Norcold, Inc., 600 S. Kuther Rd., Sidney, Ohio 45365 (Phone 937-497-3080, Fax 937-497-3178) manufactures combination gas/electric absorption refrigerators which are sold for application in recreational vehicles (RVs).

We have determined that a defect relating to motor vehicle safety exists in some specific gas absorption cooling units used on refrigerators supplied by Norcold to manufacturers of RVs. The cooling units are manufactured by Norcold and the subject defects are components of Norcold model numbers 1200LR and 1200LRIM manufactured between December 1996 and February 1999. A total population of 8,419 units of the models 1200LR and 1200LRIM with the suspect construction were sold in that period.

As presently understood, the nature of the defect is low cycle fatigue failure in the section of the cooling unit which generates the refrigerant. The potential safety problem is induced by elevated heat during operation in the AC electric mode. This suspect population of units manufactured from December 1996 through February 1999 is limited to the Norcold models listed above having cooling unit serial numbers between 700000 and 1008700. The identified units demonstrate an abnormal rate of failure.

The consequences of this fatigue failure can lead to the liquid solution slowly leaking from the sealed, pressurized cooling unit through a very small crack which could occur from the thermal expansion created from the AC heater design. If a leak occurs, the cooling performance of the refrigerator will deteriorate requiring a replacement of the cooling unit. If the refrigerator continues to be operated after the majority of solution has leaked and solution circulation has ceased, the heat source can generate very high temperatures. At that time, the steel material can soften and rupture. If the pressurizing gas is still in place when the rupture occurs, hydrogen gas may be expelled and can, under extreme conditions, be ignited by the high temperature thereby possibly causing a fire. Tests indicate that refrigerators will exhibit signs of unacceptable cooling performance prior to this unsafe condition arising. Field experience reflects that consumers have replaced the affected cooling unit under our standard warranty program before a safety problem actually arose.

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The refrigerators operate in propane gas or electrical AC power modes with AC operation the most common use. Operation in the propane gas mode does not create the fatigue failure.

We are planning a vehicle safety recall campaign to notify OEMs, distributors, dealers, service centers and vehicle owners of the availability of a free replacement cooling unit for their 1200LR and 1200LRIM refrigerator. As soon as the materials are prepared which will be shared with the OEMs, distributors, dealers, service centers and vehicle owners regarding the safety recall, we will submit them to you along with any other appropriate information needed to comply with NHTSA notification requirements.

We expect to have parts available for replacement work to begin, and we expect to begin the vehicle safety recall campaign in August 2002. Direct notification to vehicle owners will be assisted by any information we can obtain from OEMs and dealers.

Please assign an NHTSA identification number for our use and advise of any questions regarding this notification.

Sincerely,

  
James G. Liggett  
Sr. Vice President & General Manager