

	Service Operations Machinery and Systems Division <small>Carrier Corporation</small>		File	
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Centrifugal FER 61-3

1.0 PURPOSE

To inform the field that it is possible for an ice-like hydrate to form at temperatures above freezing in the cooler or purge pot of a very wet machine.

2.0 MACHINES AFFECTED

All centrifugal machines using 2-digit refrigerants (R11, R12,).

3.0 INFORMATION

The ice-like hydrate is a mixture of refrigerant and water which will float on top of the refrigerant and which can be seen through the sight glass.

The hydrate will freeze at approximately 34 F, but will not melt completely until an ambient temperature of 46 F is reached. Once melted, the hydrate separates into refrigerant and water. The water can refreeze and melt, but it will not recombine with the refrigerant except when agitated rapidly.

This phenomenon should be rare, as it is indicative of excessive moisture in the chiller. This moisture can enter the cooler by an air or a tube leak. The refrigerant must be removed and dehydrated. In addition, the chiller should be pressure tested and all leaks located and repaired.

Since a faulty purge or dehydrator can cause "ice" formation, proper purge operation should be confirmed. Where this phenomenon is observed in the purge (usually R-12 units), the purge should be blown down and then observed for reappearance of "ice" chips.

FILING INSTRUCTIONS: CENTRIFUGAL FIELD EXPERIENCE REPORTS MANUAL
 TAB: COOLER-CONDENSER

Revised to new format, 11/80.

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