Title: “Reefer Cleaning Issues”

Background

The IICL has noticed a growing number of the interiors of reefer containers affected by the use of SO₂ as a fumigant for the transport of grapes. Many containers transporting grapes are not immediately cleaned after use and in some cases sit for extended periods of time before they are re-used. The specific chemical in question is “sodium metabisulfite” which has been used to control a fungus known as “Botrytis Cinerea”. The use of this chemical as it comes into contact with moisture produces a sulfur gas that has resulted in a chemical attack causing corrosion to interior aluminum and stainless steel components as well as corrosion to the machines cooling unit. This irreversible condition will cause widespread damage and eventually render the container un-usable (see below photos):
Unfortunately there is no known cleaning agent to neutralize this attack as the chemical comes in contact with moisture. There are however some steps that can be taken to minimize the long term effect. Immediate cleaning of the interior of the container and machinery after use will help in this effort. In a recent article (Techline December 2010) published by Carrier Transicold they recommend the use of products such as “Tri-Pow’r HD) which will help in this cleaning effort.

The IICL considers this condition to be non-standard use of the container and/or that failure to take corrective action when SO 2 is used will lead to continuing non-normal and excessive corrosion.

IICL RTB 001 was prepared under the supervision of the IICL Technology Committee.