Refrigeration Safety
IIR Working Group of Commission B2
with Commissions B1, E1 and E2

INTRODUCTION

In accordance with Article XIX of the International Agreement concerning the IIR and articles 15 to 18 of the Internal Regulations of the Scientific Council of the IIR, the creation of a Commission B2 Working Group (WG) on Refrigerant system safety was proposed. It was approved by the Science and Technology Council during its meeting in Washington DC on August 21, 2003. The following Terms of Reference (ToR) further define the role of the WG.

OBJECTIVES

The vision for the work is to record existing experience regarding refrigerant system safety. Many of our refrigerants have been in use for 100 years and the “safety refrigerants” for at least 50 years. Looking back, very little documented experience exists from all those years. This lack of documentation has become evident when new safety standards are to be written.

It would also be very helpful to be able to correlate existing legal demands on design and maintenance with experienced accidents.

This project is not initiated to prove anything, but to document the experience that exist today. Many very experienced engineers have through the years developed a feeling for this experience. This project is intended to record in an objective way what this experience contains.

If a guideline for safe handling and working with refrigerants can be developed based on the collected experience, the project has been a big success.
ACTIVITIES

Knowing that there are data in the field but not with open access, we will start by using new accidents rather than looking in historical data. This has the advantage that technologies implemented to avoid old accidents will not appear in the new data. With the new emerging refrigerants and technologies, the development is moving so fast that old data can be irrelevant.

For all types of systems and all refrigerants the real number of accidents should be investigated. A database is foreseen to be set up including accidents involving injuries to humans and a certain worth of damaged products.

A preliminary limitation for the scope is accidents where human injuries are involved and/or 0.1 mUSD worth of damaged products.

The accidents must be known and analyzed by someone capable to do so in order to find the “real” reason for the incident.

The possibility to establish a database for new accidents will be investigated.

Limited studies along the line of the proposal have already started and a short summary report was presented in the form of a paper for the IIR congress 2003: “Refrigeration Accident Analysis” by Jan Erik Nowacki and Björn Palm.

IIR COMMISSIONS INTERESTED

Main commission: Commission B2

Other Commissions: B1, E1 and E2

MEMBERSHIP

Anyone interested in those issues is invited to become a member of the IIR. Members are expected to be either private members or representatives of corporate members of the IIR.

CHAIRMAN AND BUREAU

Chairman: Alexander Cohr Pachai, Denmark

Vice-Chairman: to be TBA

Secretary: to be TBA
MEETINGS

The Working Party shall strive to meet once a year and ad hoc virtually Minutes Meetings shall be minuted and copies of the minutes shall be sent to the members of the WP with a copy to the IIR head office.