

Safety practice

First aid

- (b) Start-up, inspection and maintenance of ammonia mechanical refrigeration systems (Bulletin no. 110–1983)

IIAR: A guide to good practice for the operation of an ammonia refrigeration system 1983.

Epilogue

This last chapter contains only superficial information on the basics of refrigeration maintenance. The reader is reminded how important it is that regular preventive maintenance is carried out by skilled and licensed technicians. This includes the opening of compressors for inspection. For reasons of both safety and the protection of the environment, plants should only be worked on by appropriately qualified and approved personnel when regular general tests, and those concerning leak-tightness and mechanical strength, are being carried out. In many countries, either laws covering this field apply or at least good codes of practice are in use.

It must never be forgotten that a refrigeration installation contains a chemical substance under a relatively high pressure, a situation that can be a potential threat to people and the environment, whether the refrigerant is ammonia or a CFC.

The designer must always be aware of the importance of the refrigeration system's reliability, whether it be a link in a production chain, storing food or conserving precious materials.

For a final word, we quote L. Mattarolo of Padua University, Italy, who said at the IIoR Congress in Dresden in September 1990: "In order to ensure the nutrition of the growing world population in the future the following factors must be considered:

1. increase of food production
2. measures to reduce spoilage
3. improvement of uneven distribution of food among different regions.

Refrigeration and food processing show their value not only by avoiding or reducing losses but also by employing systems and structures to preserve foods and maintain higher nutritive values. It is well-known that losses in industrialized countries represent up to 30% of the harvest. In developing countries this figure often reaches 50%.

Only some 20% of all perishable food is presently being treated by refrigeration. This leaves 80% of the 1.7×10^9 tonnes still to be tackled. A bright future and a noble task for everyone engaged in refrigeration."