

Central Valley Chemical Safety Day

IIAR Guidelines and the Safety Management Process

A. Bruce Badger
President, IIAR

Promoting the Safe Use of Ammonia for Industrial Refrigeration





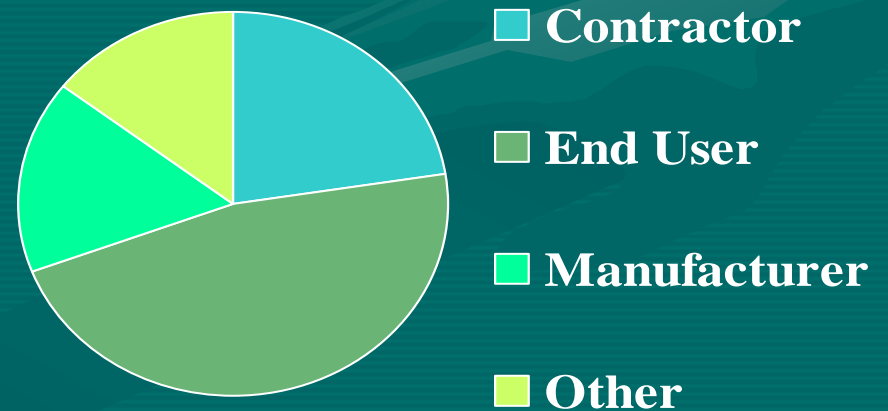
Mission Statement

IIAR is an organization providing advocacy, education, standards and information for the benefit of the ammonia refrigeration industry worldwide

Membership

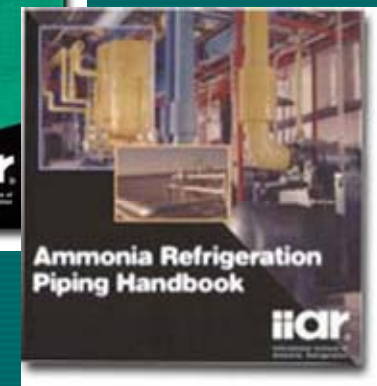
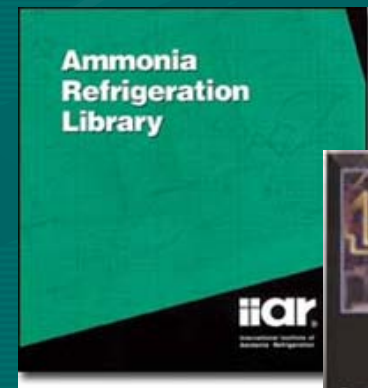
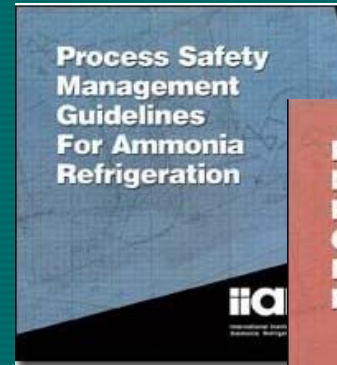
- 1,750 Members
- 157 International
- Membership in 32 countries
- 1,000+ members at Annual Meeting

IIAR Membership By Category



Resources

- PSM and RMP Guidelines
- Ammonia Library with 8 Bulletins, 3 Standards and Training Guideline
- Piping Manual
- Ammonia Data Book
- An Introduction to Ammonia Refrigeration
- 7 Training videos
- Safety Posters



The Ammonia Refrigeration Management Program

- A guideline for facilities with less than 10,000lbs of ammonia (<PSM 29 CFR1910.119/RMP 40CFR Part 68)
- Provides documentation that facilities meet the General Duty Clause for OSHA 5(a)(1) and EPA 112(r)(1)

ARM Program

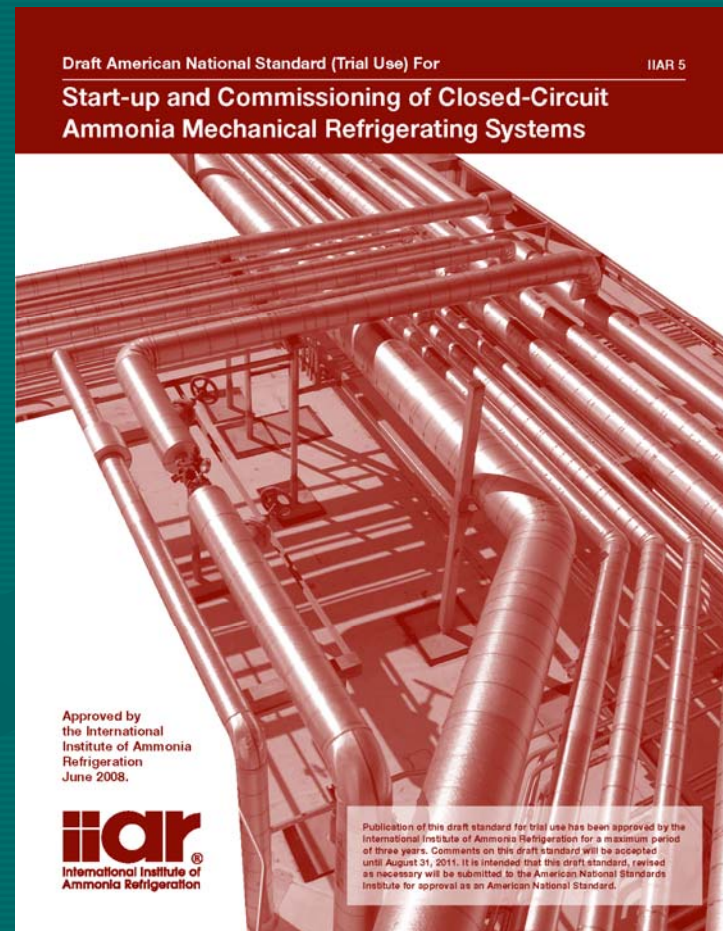
- Management System – Team and Leader
- Documentation – system flow sheet, etc.
- Operating Procedures – logs, work practices
- Preventive Maintenance – tests, inspections
- Contractor Program – qualifications, approvals
- Emergency Response – action plan
- Incident Investigation – procedures
- Training Program – content, procedures
- Hazard Review Procedures – identify, analyze, evaluate
- System Change Procedures – review and update

Bulletins

- 107 – Refrigeration system “tie ins”
- 108 – Water contamination
- 109 – Safety Criteria
- 110 – Startup, Inspection, Maintenance
- 111 – Mechanical room ventilation
- 112 – Mechanical room design
- 114 – Identification of Piping and Components
- 116 – Avoiding refrigeration system shock

Standards

The newest IIAR Standard is entitled “Start-up and Commissioning of Closed-Circuit Ammonia Mechanical Refrigerating Systems”



Thank you

www.iiar.org

