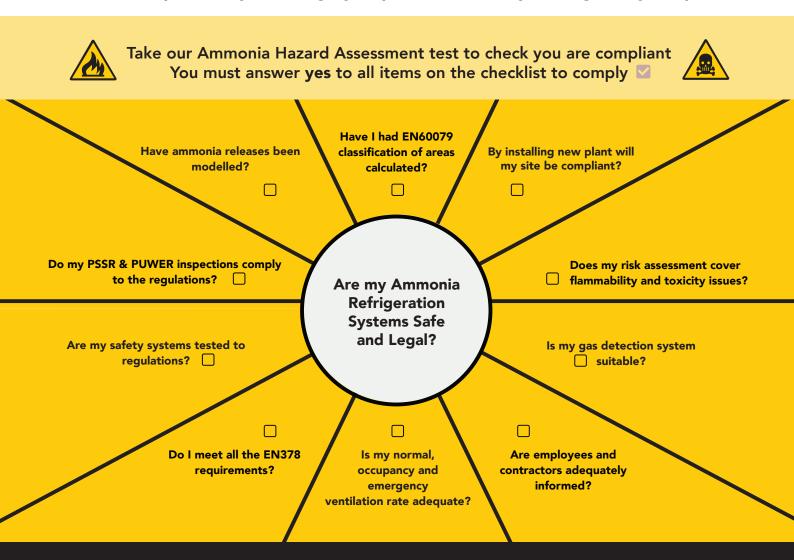
# Ammonia Hazard Assessment

Owners and operators, you are legally responsible for safety and regulatory compliance



#### Star Technical Solutions (STS) – The Refrigeration Regulatory Compliance Experts

An Ammonia Hazard Assessment (AHA) carried out by STS will provide answers to all of these questions by checking your system(s) compliance with regulatory requirements including:

- The Management of Health and Safety at Work Regulations (MHSWR)
- The Dangerous Substances and Explosive Atmosphere Regulations (DSEAR)
- EN378 Parts 1-4: Refrigeration and Heat Pumps, Safety & environmental requirements
- EN60079-10-1: Explosive Atmospheres Classification of Areas

The AHA will include 'Classification of Area' calculations for each area where ammonia is present, a check/measure of the normal, occupancy and emergency ventilation rates, detail of the effect of ammonia releases from relief valves and ventilation systems and an ammonia risk assessment to the requirements of MHSWR and DSEAR.

Where non conformities are identified, STS will provide a list of required actions. The AHA document can then be used as a feed for updating your ammonia release response procedures.





# **Star Technical Solutions**

Star Technical Solutions (STS) is the technical advisory service of Star Refrigeration. STS operates independently of the rest of the business and its purpose is to provide expert, impartial and independent advice to owners and users of cooling plant and their associated systems. Our innovative, flexible and creative attitude helps to ensure our clients reach their goals effectively.



STS provides support to clients in all stages of their projects and in various market sectors. We offer a range of services, including:

### **Regulatory Compliance**

- Pressure System Integrity Inspection
- Ammonia Hazard Assessment
- HFO Hazard Assessment
- HFC Hazard Assessment
- Principle Designer for refrigeration type projects
- HAZOPs

### **Refrigeration System Design**

- Selecting compressor packs, air cooler, condenser, and all other equipment
- Pressure vessel sizing and connection layout
- Prepare refrigerant P&ID's Diagram of Connections
- Bills of materials
- Equipment layout drawings
- Electrical and control specifications
- Electrical drawings

# **Energy Audits and Management**

- Refrigeration system energy audit as required by ESOS.
- Ethos data monitoring with energy usage alert (identifies efficiency problems and can save significantly in electricity consumption)clients site
- Electrical drawings

# **Other Related Services**

- Trouble shooting of refrigeration systems
- Refrigeration equipment condition audit
- 5-year maintenance plans and maintenance specification
- Legal technical support and expert witness

# **Supporting the Client Project**

- Feasibility Studies
- Refrigeration Tender Specifications
- Insulated Envelope Tender Specification
- Tender Review and Contractor Interview
- Review of Contractors design and Installation during project
- Commissioning review and snagging review

# Training

- Manager level Ammonia awareness training
- Manager level HFC Legislative Compliance
- Engineer level Ammonia system training and competency assessment – at clients site
- Engineers level HFC/ CO2 system training and competency assessment – at clients site
- Electrical drawings

# Ethos Plant Optimisation and Energy Management

- Energy Management
- Load assessment
- Trouble shooting
- Heat metering
- Benchmarking



To get a quote for an Ammonia Hazard Assessment email: info@star-ts.co.uk or call 0141 638 7916 and ask for STS.