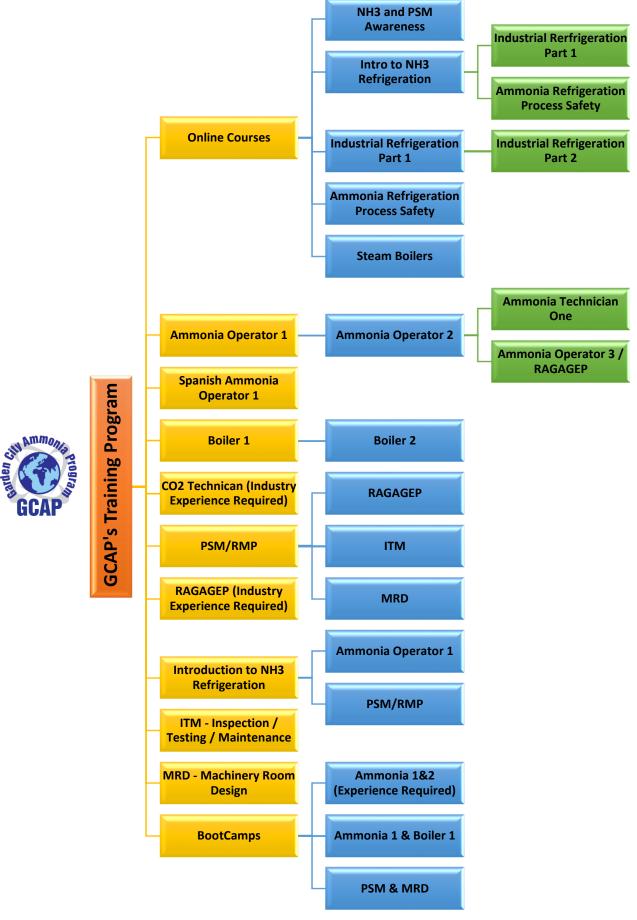
# **GCAP's Recommended Courses**



### Online Courses

Work at your own pace and establish industry credentials

## • Introduction to Ammonia Refrigeration

 Non-Operators (Such as safety and plant management) that have oversight or accountability within ammonia refrigeration or process safety take the:

# • Ammonia Operator 1

 For Operators, Mechanics, Technicians, and some Electricians working on and around the NH3 System, take NH3 1 after they have obtained 6 months Engine Room Experience

### Ammonia Operator 2

- For advancing operators
- o Making adjustments for liquid feeds, defrost, staging compressors, start-ups.
- The best time to send them after op 1 is within a year, but as soon as credential is achieved ultimately, they could sit for the class.

# Ammonia Operator 3 / RAGAGEP

- For key management, engineering, PSM, and lead technicians to learn applicable code, standards, bulletins..... for the industry best recommendations.
- This class does not require level 1 nor 2 pre-requisites, however does require industry refrigeration / PSM experience.

#### Ammonia Technician 1

o Is for the ones in your plant that have to do maintenance, testing, and inspections on the equipment and the safeties around the equipment. Pre-requisite is an approved NH3 level 1 and 2 courses.

## PSM/RMP (Process Safety Management)

 Is for anybody whom is accountable / responsible for any facet of development, integration, and implementation of the PSM/RMP program around the NH3 Refrigeration system. No pre-requisite required.

#### Boiler 1

For Operators, Mechanics, Technicians, and some Electricians working on and around the Boiler System,
take Boiler I after they have obtained 6 months Engine Room Experience

# Boiler Level II

- For advancing operators
- o Optimize water treatment / Advanced Combustion / Annual Requirements.
- o If someone passes Boiler I (not just experience) they are eligible for Boiler II. The best time to send them is after Boiler I within a year, but as soon as credential is achieved ultimately, they could sit for the class.

# RAGAGEP

- For key management, engineering, PSM, and lead technicians to learn applicable code, standards, bulletins..... for the industry best recommendations.
- This class does not require level 1 nor 2 pre-requisites, however does require industry refrigeration / PSM experience.

# • ITM – Inspection / Testing / Maintenance

- For key management, engineering, PSM, and lead technicians to learn the requirements of a comprehensive mechanical integrity and maintenance program for ammonia refrigeration
- MRD Machinery Room Design Industry best practices for the ammonia refrigeration system and the rooms they are housed. For key management, engineering, PSM, and lead technicians

## CO2 Technician

 Come learn all variations of NH3/CO2 cascade systems as well as transcritical CO2 systems. 2 years refrigeration experience and/or GCAP's Ammonia Operator 1 course.