



## Ammonia / Hydrogen Plants – Failure Prevention

**Potential PDH:** 20

### Description:

#### Training Module Description

- A5 Secondary Reformer
- A6 Process Waste Heat Boilers
- A7 Shifted Gas Loop
- A8 CO<sub>2</sub> Removal Loop
- A9 Methanation Loop
- A10 Ammonia Conversion Loop
- A11 Condensation Loop
- A12 Refrigeration & Ammonia Storage Loop

Who should attend: Reliability Engineers, Mechanical Engineers, Process Engineers & Inspectors

### Outline:

- Integrity Mgt of Secondary Reformers & Refractory systems
- Integrity Mgt of Process Gas Waste Heat Boilers
- Integrity Mgt of equipment in the Shifted Gas Loop
- Integrity Mgt of equipment in the CO<sub>2</sub> Removal Loop
- Integrity Mgt of equipment in the Methanation Loop
- Integrity Mgt of equipment in the Ammonia Conversion Loop
- Integrity Mgt of equipment in the Ammonia Condensation Loop
- Integrity Mgt of equipment in the Ammonia Refrigeration & Storage Loop

### Subject Matter Expert (SME):

**David Keen** is a qualified Metallurgist with over 45yrs domestic and international experience in fertilizer and explosives manufacturing facilities across 12 countries globally. These facilities include Ammonia, Urea, Nitric Acid, Sulphuric Acid, Phosphoric Acid, Ammonium Nitrate, Fertilizer plants and Steam Generation utilities. David is a Subject Matter Expert (SME) on equipment integrity management and has in recent years downloaded this knowledge into a series of training modules focused on preventing equipment failures through experiential learning and team problem solving sessions.