
Key Aspects of Environmental Hazards Associated with Commissioning and Decommissioning of Installations on Customer Sites

Summary

EIGA has produced this newsletter to provide advice to company directors, technical managers, environmental specialists and National Associations on best practices concerning control of customer engineering operations.

Installation and removal of equipment on or from a customer's site as part of engineering industrial and medical gas installations for a customer is a frequent activity for EIGA members. This newsletter is produced to highlight the main environmental hazards associated with this activity and provide an overview of how the risks can be controlled. These equipment installations are generally small scale activities and the hazards can be overlooked and not identified and controlled.

It is important that EIGA members use best practices to minimise the impact of their activities.

Scope

This newsletter highlights a number of key environmental hazards and some methods of control that are relevant to commissioning and decommissioning of small installations on customer sites such as tanks, pipework, vessels, compressors, pumps, filling stations, PSAs rather than larger on site gas plants.

Environmental hazards and controls

Key aspects to be aware of during installation are listed below, some of these requirements are driven by legislation or by contractual requirements; others represent good operating or construction site practices to minimise environmental impact and prevent pollution incidents.

These activities can be more difficult to control as these are not on main operating sites and less supervision and oversight is available and the activities may rely on contractors who are less familiar with good environmental practices.

During installation and commissioning:

- Customer's permit conditions (e.g. noise, emissions).
- Customer's existing installation (if any).
- Access arrangements – traffic movements and delivery of large items.
- Noise protection measures during construction and commissioning:
 - Night time working, noise monitoring requirements.
- Buildings design considerations:
 - Heating or cooling, diesel generators, oil storage, sewer connections, waste water connections.

- Landscaping and restoration:
 - Trees, grass, other ecological issues.
- Phasing the work so as not to disturb birds, mammals, reptiles etc
- Soil report - what is there:
 - Hazards and environmental baseline of any existing chemical contamination.
- Soil protection:
 - Oil leaks from vehicles.
- Temporary facilities:
 - Waste, sanitary water.
- Water disposal ,according to relevant permits where necessary:
 - E.g. storage tanks for water from pressure tests, or equipment cleaning.
- Water runoff measures to prevent soil running off:
 - Use of catch pits or lagoons.
- Use of solvents or detergent for cleaning and degreasing equipment
- For electronics gases - temporary venting or treatment of gases used for passivating lines.
- Dust control from vehicles and construction activities, for example routing on to made roads or water sprays or road sweepers.
- Storage of chemicals and oil:
 - Control of location, segregation and volumes of what is allowed on site.
- Lighting:
 - Minimising light pollution, using activation sensors and low level lighting.
- Asbestos presence:
 - Undertaking surveys and implementing asbestos control.
- Waste disposal:
 - Identifying waste streams, selection of waste contractor or agreement with customer, looking to minimise waste and maximise recycling.
- Use of temporary equipment such as generators, tools:
 - Minimisation of noise and emissions.
- Fire prevention for hot work (e.g. wooden cooling towers or packing)
- Emergency response:
 - Location of spill kits, planning and training in their use.
- Temporary installations for protection of materials to minimise damage:
 - Containment measures for paints, degreasers, perlite etc.
- Training of employees and contractors, including use of 'safe contractors' certification schemes
- Permanent and temporary communication and signage.

During decommissioning:

Similar issues to those during installation and commissioning should be considered, in addition to the following:

- Soil report close out and restoration / remediation of soil.
- Demolition control.
- Safe and legal handling of asbestos insulation, PCBs in transformers, lighting ballasts.
- Equipment reuse, recycling or disposal.
- Potential contamination of equipment from customer process.

Best practices

For details on best practices that should be followed, please refer to the following EIGA documents:

Doc 117, *Environmental impacts of customer installations*.

Doc 137, *Environmental aspects of decommissioning* (includes decommissioning checklist).

Doc 88, *Good environmental management practices for the Industrial Gas Industry*.

All documents are available from the EIGA website at www.eiga.eu.

Actions

EIGA members should review these activities on customer sites to make sure these environmental hazards are identified and adequately controlled

DISCLAIMER

All technical publications of EIGA or under EIGA's name, including Codes of practice, Safety procedures and any other technical information contained in such publications were obtained from sources believed to be reliable and are based on technical information and experience currently available from members of EIGA and others at the date of their issuance.

While EIGA recommends reference to or use of its publications by its members, such reference to or use of EIGA's publications by its members or third parties are purely voluntary and not binding. Therefore, EIGA or its members make no guarantee of the results and assume no liability or responsibility in connection with the reference to or use of information or suggestions contained in EIGA's publications.

EIGA has no control whatsoever as regards, performance or non performance, misinterpretation, proper or improper use of any information or suggestions contained in EIGA's publications by any person or entity (including EIGA members) and EIGA expressly disclaims any liability in connection thereto.

EIGA's publications are subject to periodic review and users are cautioned to obtain the latest edition.

© EIGA 2016 - EIGA grants permission to reproduce this publication provided the Association is acknowledged as the source