Guidance for large gas consumers in dealing with Natural Gas supply emergencies
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SECTION 1 : INTRODUCTION

1.1 This Guidance provides advice on the potential reasons for cessation of supplies to commercial and, in particular, industrial gas users and the actions necessary to be taken in a Natural Gas supply emergency.

1.2 IGE/GL/9 aims to give simple advice to Natural Gas consumers on the consequences of the loss of their gas supply, their legal obligations, and technical requirements to ensure continued safe operation of consumers’ plant.

1.3 With appropriate contingency planning, gas consumers may avoid being exposed to greater costs and commercial risks than would otherwise be expected.

1.4 Minimising the impacts of potential Natural Gas supply emergencies requires the co-operation of everyone in the industry. Only by working together can the quality of contact information be improved. This is a vital part of the industry emergency process for reducing demand on the gas network quickly and safely.

1.5 The Gas Safety (Management) Regulations allow gas transporter(s) (as gas conveyors) to direct any consumer to stop using gas when necessary, to prevent a Natural Gas supply emergency. In the event of such an emergency, it is vital that Large End Users stop using gas as soon as can be safely achieved, to limit the disruption to smaller consumers and to safeguard the Network.

Site occupiers will also have safety responsibilities under other safety legislation such as the Health and Safety at Work Act and the Provision and Use of Work Equipment Regulations. This publication does not cover all the safety issues arising from such legislation. However, the need for competent persons, planning and safe procedures is of paramount importance.

1.6 This Guidance does not address any issues that are associated with any contractual arrangements (between users and the gas transporter/shipper) for interruptible supply except that some or all of the technical guidance will be applicable.

SECTION 2 : SCOPE

2.1 This Guidance provides advice for those Large End Users of Natural Gas who may be directed to cease the use of Natural Gas in the event of a gas supply emergency.

Note: In this respect, Large End Users are those consuming 732,000 KWh (25,000 therms) per annum at an individual supply point.

2.2 This Guidance is not specific to loss of gas affecting any particular premises but the general information given has general relevance and may be used to formulate site-specific plans.
SECTION 3 : PLANNING FOR CESSION OF GAS SUPPLY

3.1 CAUSES OF CESSION OF GAS SUPPLY
The cessation of supplies to users of Natural Gas may be caused by:

- damage to, or failure of, the local gas supply network
- failure of part of the national transmission system
- insufficient supplies to meet gas demand.

In such cases, Large End Users may be required to implement immediate or phased cessation of their gas supply.

Note: Large users will be directed to cease using gas ahead of priority users and domestic users. The proximity of a premises’ supply to a network terminal does not imply that gas supply will be secure under emergency conditions.

Under any of the above circumstances, the user may be contacted by the gas transporter, or shipper or supplier acting on the transporter's behalf, and directed to cease using gas. Users are required by law to comply with this direction. If a user fails to comply with the direction to cease consumption of gas and the gas transporter attends to isolate the user's supply, this will normally be done at the Emergency Control Valve (at the primary meter).

The user’s co-operation with the gas transporter in an emergency is vital if the safety of the gas supply network is to be assured.

3.2 PLANNING FOR CESSION OF GAS SUPPLY
There are a number of important steps which the user should take in planning for a cessation of supply:

- assess the risks to site and business operations due to the cessation of gas supplies.
  
  Note: This may include business continuity issues.

- establish who is the gas transporter, gas shipper and gas supplier and adopt a rigorous procedure to ensure their details are kept up-to-date.
  
  Note: Details of the gas transporter and supplier are shown on the gas supply invoice. The gas supplier will have details of the relevant gas shipper.

- prepare an operating plan for when no gas is available, including the availability/operability of existing alternative site energy sources, and potential damage to plant or processes e.g. caused by freezing of water systems.

- identify the key contact points within the user’s company to respond to the direction to curtail supplies. It is vital that up-to-date details of these contacts are supplied to the gas supplier, including “out of hours” details [24 hours/365 days]

- ensure that competent resources are available to cease the use of gas as directed

- ensure competent resources are available for the restoration of gas systems and the start-up of associated plant and equipment when the gas supply emergency has finished.
  
  Note: Other Large End Users may be similarly affected and, therefore, if the required competency to restore gas supplies is not available “in-house”, it is worth bearing in mind that the services of specialised contractors may be stretched at this time.

- on a regular basis, establish and test the procedures for the controlled shut-down and start-up (re-commissioning) of plant and equipment. Refer to Section 4 for details of important considerations when establishing these procedures

- if the risk assessment indicates that significant health and safety implications may exist due to cessation of supply, the user may contact the gas supplier

- ensure it is known who will provide the information that the gas supply emergency has finished i.e. will it be the transporter, the shipper, the supplier or another party?
SECTION 4 : SHUTTING DOWN PLANT AND EQUIPMENT

4.1  When a direction to cease consumption is received then the user should try to do this by shutting down gas appliances rather than turning off the gas at the Emergency Control Valve (at the primary meter) or at other section isolation valves. The primary consideration is to ensure continuing safety while, if reasonably practicable, maintaining a positive gas pressure i.e. greater than atmospheric pressure, within the pipework system.

Turning off the supply at the Emergency Control Valve or at any other section isolation valve may lead to the complete loss of pressure within the installation pipework downstream of that valve. This may also lead to the inability to ignite alternative fuels (see Note 1 of 4.2) and require purging, testing and commissioning upon resumption of supply. These activities could involve considerable expense and delay. Furthermore, in some cases, the steps to re-commission will require a written methodology and the use of appropriate purge gas. There will also be a need for staff with the appropriate level of competence to test and purge the system.

Note:  There may occasions where the user suspects a failure of the gas supply network before being contacted by the gas transporter, or shipper or supplier. In such cases, each appliance should immediately be turned off and the Emergency Service Provider contacted via 0800 111 999.

4.2  If the user has the ability to use alternative fuels, it is important to ensure that all associated equipment can be readily switched to the alternative fuel at short notice.

Note 1:  It may be necessary to have either a standby LPG or bottled Natural Gas supply for the ignition system.

Note 2:  In a gas supply emergency, little or no advance notice may be given of the cessation of gas supply, so it is important to remember that adequate standby fuel storage or heated oil systems may be needed to permit rapid changeover to oil firing at any time and not just under peak winter conditions.

SECTION 5 : RE-STARTING EQUIPMENT UPON RESTORATION OF GAS SUPPLY

When the gas supply emergency is finished, you will be notified by the gas transporter, shipper or supplier.

5.1  GAS SUPPLY LOCALLY ISOLATED AT APPLIANCES

If appliances are isolated at their local isolation valve, it should be possible to light the appliances one at a time. Check in each case that they appear to be operating correctly.

Site staff should understand and be sufficiently competent to attempt to relight appliances. They should also have the operating and fault finding instructions to hand. If there is any doubt about the staff competency or if appliances do not appear to be operating correctly, seek assistance from a competent person such as the manufacturer/servicing agent.

5.2  GAS SUPPLY ISOLATED AT THE EMERGENCY CONTROL VALVE OR SECTION ISOLATION VALVES

In this instance, it is essential to first apply a test for gas tightness of the existing pipework system in accordance with IGE/UP/1 or IGE/UP/1A before purging takes place.
This must be performed by persons holding the appropriate competency and, for commercial premises, those who are registered as a Member of a Class of Persons (currently CORGI).

Note: For information on competency, see HSE COP 20 “Standards of Training in Safe Gas Installation”.

SECTION 6 : FURTHER HELP

IGEM has a wide range of Utilization Procedures that may be of assistance. For more information visit the web site on www.igem.org.uk.

IGEM also has available a list of Consultants with expertise in most fields of gas supply and utilization, to assist consumers of gas in meeting their obligations and ensuring the safety of their systems. For more information visit the website on www.igem.org.uk.
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