



Safety, Change, Leadership

Solihull Consultants Limited

Guidance to Industrial and Commercial Customers In the Event of a Gas Supply Emergency

**Prepared by
Steve Featherstone CEng FIGEM**

1. Introduction

The gas supply demand forecast for winter 06/07 is forecast to be as tight, if not tighter, than winter 05/06.

We are all now aware of the market prices of wholesale gas last winter and each industrial and commercial gas user will take a view on their energy purchasing strategy for next winter.

Whilst the risk of major gas supply shortages is low, unfortunately low probability, high consequence events do happen. In the past year we have seen floods in New Orleans, drought orders in South East England and the shutdown of the Rough storage facility after an explosion on 16 February.

Last winter, had a 1 in 50 severe winter occurred, the demand side reduction would have been the equivalent of 50% of the non-power daily metered customers (big industry) being cut off for over 50 days. There is no way of predicting when the next severe winter will be.

This guidance note is aimed at industrial and commercial gas users to assist with their contingency planning in the event of a gas supply emergency.

In the event that appropriate contingency planning is not undertaken then companies could be exposed to even greater safety and commercial risks than would be expected in a gas supply emergency.

2. Legal obligations

In the event of a potential gas supply emergency, signals will be sent to system users to encourage the commercial regime to balance supplies and demands. Amongst other things, interruptible contracts and demand side response contracts will be used.

In the event of an actual gas supply emergency the market will be suspended and the gas transporters will assume responsibility for balancing gas supplies and demands.

The gas transporters will contact industrial and commercial gas customers directly and request that they turn off their gas supply. **It is a criminal offence not to comply with the gas transporter's request to stop taking gas from the system.**

3. Contingency Planning - Before a Gas Supply Emergency

As with any emergency situation effective contingency planning is key. There are five key stages to the contingency planning process.

3.1 Prepare a shutdown plan (try to retain pressure in system pipework by isolating at appliances)

Many industrial and commercial customers when asked to isolate their gas supply by the gas transporter would turn off the main site valve next to the meter.

In the event that this approach is taken, then pressure will be lost in all of the downstream pipework between the meter and the appliances. After the gas supply emergency is over, this pipework will have to be tested and recommissioned and, after a period of no pressure, there is a risk that the pipework will fail its pressure test.

It is therefore recommended that the gas is isolated at the appliances rather than at the meter. This will maintain the pressure in the site pipework and will significantly speed up the recommissioning process.

In a gas supply emergency it is important that the gas load is reduced quickly so customers will have to be able to rapidly isolate all of their appliances.

In the event that the load is not reduced quickly, the transporter has the legal right to isolate the supply at the meter and to report the customer to the HSE for not responding as requested.

It is recommended that industrial and commercial customers prepare a shutdown plan identifying how and who will shut down the appliances at their site.

Some customers may have been given priority status by the DTI and may be allowed to retain gas supplies to some appliances. This needs to be clearly identified in the shutdown plan.

3.2 Ensure that competent resources are available, contact numbers for out of hours etc

In order to simultaneously isolate their appliances, industrial and commercial customers will require trained and competent resources.

Allowance needs to be taken for holidays and sickness when assessing the number to be trained and competency assessed.

As a gas supply emergency could occur at any time of day and on any day of the week, it is important that resources can be contacted outside of normal working hours and quickly mobilised to site.

3.3 Practice by walking through how you plan to shut down your site

Having identified the necessary resources, it is important that they are allowed to practice what to do in the event that they are asked to shut down the gas appliances.

It will not actually be necessary to isolate the appliances but the resources should be asked to ensure that they can access the necessary area and they should be asked to explain what they would do to isolate each appliance.

Walking through the shut down plan will provide assurance that it will work and allow time to solve any problems encountered e.g. access key availability.

3.4 Prepare a recommissioning plan

Once the gas supply emergency is over, the appliances will need to be tested, purged and recommissioned.

It is important that this is undertaken by trained and competent resources. As many industrial and commercial customers may have been asked to isolate their supplies at the same time, it is unlikely that external resources will be readily available unless they have previously been contracted for.

The time criticality for the recommissioning process are commercially driven rather than gas safety driven. Industrial and commercial customers may therefore decide to have a limited number of trained and competent resources who will recommission the appliances one at a time.

3.5 Prepare an operating plan for no gas available

This is one of the most important commercial stages of the contingency planning process and will likely necessitate discussions at the most senior corporate levels.

Companies need to assess how they will operate in the event that they do not have a gas supply.

For some companies this could simply mean switching to alternative fuels.

For other companies this could mean closing the plant and possibly laying off some of the workforce. In this event, early discussions with the workforce representatives are recommended so that they are prepared and have dealt with any key questions in advance.

Preparing an operating plan for no gas will clearly identify the consequences of a gas supply emergency to the industrial and commercial customer.

It may be that the consequences are so high that the Industrial and Commercial customer feels the need to mitigate the risk by either installing a stand-by fuel system or entering a demand side response contract so that they get paid to switch off their gas prior to the full gas supply emergency being declared.

In extreme cases the consequences may be such that the industrial and commercial customer can apply to the DTI for priority status.

4. In the event of a Gas Supply Emergency

In the event of a gas supply emergency, requiring firm load shedding, industrial and commercial users will be contacted by the gas transporter. The gas transporter will use the customer contact information provided by the gas supplier. If this is incorrect then the gas transporter may choose to send a person to isolate the gas supply at the meter. As discussed earlier this is not the best way to isolate the system as it makes recommissioning more time consuming and expensive.

It is therefore important that industrial and commercial customers and gas suppliers ensure that the customer database is kept accurate and up to date.

Once contacted by the gas transporter, the industrial and commercial customer should implement their shutdown plan and implement their operating plan for no gas available.

5. After the Gas Supply Emergency has ended

After the Gas Supply Emergency has ended, the gas transporter will notify the industrial and commercial customer.

Once notified by the gas transporter, the industrial and commercial customer should implement their recommissioning plan.