

Critical Contingency Process Overview

Gas Governance (Critical Contingency Management) Regulations 2008 & 2013 Amendments

The Critical Contingency Operator (CCO) is an independent industry role provided to the Gas Industry Company by Core Group Ltd under a Service Provider Agreement.

The role of the CCO is to manage critical gas outages and other security of supply contingencies without compromising long-term security of supply.

The CCO will declare a critical contingency (CC) when either a CC pressure threshold limit on the transmission system has been breached or it is believed that a breach of a CC pressure threshold limit is unavoidable.

First Gas Ltd, defined as transmission system owner (TSO) under the regulations, have their own specific obligations.

Critical Contingency Sequence of Events & Main CCO Actions

1. Notification of Potential Critical Contingency

The CCO will issue a potential CC notice to give warning that system conditions have deteriorated to a point where a CC is likely to occur. Dependent on the nature of the event this may not always be possible. The provisions of the regulations are not activated at this stage.

2. Termination of Potential Critical Contingency

If the event that caused the potential CC is resolved without any thresholds being breached or expected to be breached the CCO will terminate the potential CC.

3. Declaration of Critical Contingency

The CCO will declare a CC upon which the provisions of the regulations are activated. Demand curtailment may or may not be required to manage the event.

The CCO is also required to determine and advise whether a critical contingency is a regional critical contingency. For regional critical contingencies, the critical contingency imbalance provisions in the regulations will not apply.

4. Direction to Curtail Demand

If required, the CCO will issue demand curtailment directions to match demand with remaining supply in the affected part of the system. Directions are given to the TSO who in turn will issue demand curtailment instructions to **Large Consumers** and **Retailers**. **Retailers** then must instruct their **Consumers** to curtail as directed and **Consumers** must curtail their demand accordingly. Several sequential revised demand curtailment directions may be issued following the initial notice.

The 2013 Amendments introduced supply designations, the purpose of which is to modify the curtailment arrangements as they apply to a consumer installation that needs to continue using gas in a critical contingency.

The supply designations are:

Table 2 Designations:	
Designation Types:	Description
Critical Care	Hospitals, primary health care, prisons, essential support for critical care providers.
Essential Services	Mortuary services, heat treatment of biohazards, municipal water supply, treatment of municipal sewage, emergency services; >2 TJ per year
Critical Processing:	To avoid serious damage to plant, mitigate serious environmental damage, or prevent inhumane treatment of animals at an abattoir
Electricity Supply	To start up or switch to generation plant that runs on fuel other than natural gas; or to synchronise a unit that provides voltage support

Consumers can apply to the Gas Industry Company if they believe they meet the criteria for a supply designation. The effect of approved designations within each curtailment band is summarised below:

Table 3 – Effect of Approved Designations within Curtailment Bands				
Band	Consumption	Description	Approved Designation	Effect
0		Gas Storage	N/A	
1	>15 TJ/day	Consumers with alternative fuel capability	Electricity Supply	Continue to use amount of gas specified in the approved designation only in accordance with a determination made by the CCO under regulation 53(1)(da).
			Critical Processing	Reduce demand to approved shutdown profile
2	>15 TJ/day	Consumers without an alternative fuel capability	Electricity Supply	Continue to use amount of gas specified in the approved designation only in accordance with a determination made by the CCO under regulation 53(1)(da).
			Critical Processing	Reduce demand to approved shutdown profile
3	>10 TJ/annum and up to 15 TJ/ day	Industrial and commercial consumers	Critical Processing	Reduce demand to approved shutdown profile
4	>250 GJ/annum and up to 10 TJ/ day	Medium-sized industrial and commercial consumers	Critical Processing	Reduce demand to approved shutdown profile Bands 1-3 critical processing fully curtailed
5	>2 TJ/annum	Essential services designated consumers	Essential Services	
6	<250 GJ/annum	Small commercial customers	N/A	Band 4 critical processing fully curtailed
7	Any	Critical care designated consumers	Critical Care	

(Note: Domestic consumers are not included in the curtailment bands)

Retailers are required to prepare a retailer curtailment plan which outlines their consumer's notification process for implementing the curtailment instructions.

Retailers and **Large Consumers** are required to provide the TSO with updates on demand curtailment compliance. Templates for providing this information are available on OATIS.

During a CC the CCO may explore any available opportunities to increase upstream gas production and draw on storage (excluding line pack) to mitigate the severity of the event. This does not prevent storage and production station operators from electing to increase flow rates during a CC prior to being contacted by the CCO.

If curtailment of Bands 0 to 6 is insufficient to stabilise the system, the CCO may instruct Retailers to commence media appeals for domestic consumers to reduce their gas usage.

5. Public Information

After curtailment of Band 3 the CCO will prepare and publish public statements outlining the cause of the contingency, actions being taken to stabilise the system, curtailment bands affected, the area affected and any information on the estimated time to resolve the issue.

6. Direction to Restore Demand

When the CCO is satisfied that the event that caused the CC has been resolved and the system has stabilised the CCO will issue demand restoration directions. Restoration will normally take place in the reverse order to curtailment. Several sequential revised demand restoration notices may be issued following the initial notice.

7. Termination of Critical Contingency

The CCO will terminate a CC when satisfied that the system can supply all or reasonably expected demand. The provisions of the regulations are now also terminated (except for post event reporting and imbalance methodology calculations).

Further Information about Critical Contingencies

Communication with Transpower

The CCO will liaise closely with Transpower before and during a CC to ensure the needs of the electricity supply system are accommodated as far as reasonably practicable.

Communication with Large Consumers

The CCO will endeavour to liaise with affected Large Consumers before and during a CC particularly regarding any approved supply designations.

CCO Communications during CC

- The CCO uses the contact details supplied by stakeholders. Notices containing declarations and directions will be sent to these contacts by email and SMS text at each step of a CC.
- Contact details of listed stakeholders are tested quarterly.
- All CCO notices are published on the 'Current CC Events' section of the CCO web site at www.cco.org.nz. This site has full public access.
- The CCO publishes regular supplementary information/status update notices on the CCO web site during a CC (these notices are **not** sent by email and SMS text).
- The CCO website also contains all related documentation, publications and resources about the CC process.

CCO and TSO Notices

- The CCO issues a Notice of Declaration to the TSO and all Stakeholders.
- The CCO issues Curtailment, Reconfiguration and Restoration Notices to the TSO and copies these notices to Stakeholders for information.
- The TSO issues Curtailment and Restoration notices to the parties having obligations to act under the regulations i.e. Large Consumers and Retailers.
- The CCO issues notices to implement Media Appeals to Retailers
- The TSO issue notices by OATIS and SMS/email alerts and phones Large Consumers direct.
- The CCO issues a Notice of Termination to the TSO and all Stakeholders.

Imbalance Methodology and Critical Contingency Cash Outs

The TSO imbalance methodologies provide incentives to assist in avoiding or mitigating the severity of a CC. Following an event the GIC will appoint an industry expert to work through the TSO imbalance methodologies. A CC gas price will be determined. Parties with a negative contingency imbalance may have to pay the critical contingency cash out price whereas parties with a positive contingency imbalance may receive the critical contingency cash out price.

Gas Distributors

Retailers and Gas Distributors must work closely together to ensure demand curtailment and restoration directions are complied with safely and efficiently.