

Critical Contingency Process Overview

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

General

The Gas Governance (Critical Contingency Management) Regulations 2008 set out how gas industry participants plan for, and respond to, a serious incident affecting gas supply through First Gas Limited's (FGL's) transmission system (a **critical contingency**).

FGL as the Transmission System Owner (**TSO**) is required to follow directions from the Critical Contingency Operator (**CCO**).

The CCO is an independent industry role provided to the Gas Industry Company 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.

Prior to a Critical Contingency Event

The CCO must maintain a published **Communications Plan** prepared in consultation with the TSO which will govern the communications between the CCO and the TSO during a critical contingency.

The CCO must maintain a published **Information Guide** that explains the communication flows between the CCO and the following parties during a critical contingency:

- (a) the electricity system operator; and
- (b) the director of civil defence emergency management; and
- (c) operators of gas storage facilities; and
- (d) operators of upstream gas production facilities; and
- (e) the industry body; and
- (f) the Minister of Energy and the Secretary; and
- (g) any other person that the critical contingency operator or the industry body considers necessary.

The TSO must prepare a Critical Contingency Management Plan (**CCMP**) which must be approved by the Gas Industry Company (**GIC**). The CCMP must include:

- pressure thresholds for the transmission system
- a description of the events that the TSO considers may feasibly result in a breach of the thresholds
- actions that the TSO considers it may feasibly take to remedy any breach in those thresholds
- a process, consistent with the curtailment arrangements, outlining how curtailment will be implemented and how restoration will be implemented
- a communications plan (including contact details), describing the communications that the TSO must initiate by notice to the CCO, gas distributors, shippers, retailers, large consumers, and any other person it considers necessary before and during a critical contingency

Retailers must prepare and maintain a **Retailer Curtailment Plan** which sets out processes for contacting or notifying consumers, obtaining compliance information and how that information is reported back to the TSO. If the Retailer has domestic customers, the Plan must also include details on how the Retailer would implement media appeals for domestic users to reduce their gas use if directed to do so by the CCO.

At least every two years, Retailers are required to notify its consumers about the existence of the CCM Regulations and the necessity to comply with directions issued by the Retailer during a critical contingency.

All non-domestic consumers are placed in one of the following curtailment band:

Band	Consumption	Description
0		Gas Storage
1	>15 TJ/day	Consumers with alternative fuel capability
2	>15 TJ/day	Consumers without an alternative fuel capability
3	>10 TJ/annum and up to 15 TJ/ day	Industrial and commercial consumers
4	>250 GJ/annum and up to 10 TJ/ day	Medium-sized industrial and commercial consumers
5	>2 TJ/annum	Essential services designated consumers
6	<250 GJ/annum	Small commercial customers
7	Any	Critical care designated consumers

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

Retailers are required to provide information to the CCO on the number of consumer installations in each curtailment band and the annual consumption for each of those consumer installations at each gas gate on the FGL transmission system that a Retailer delivers to.

All Large Consumers are required to provide consumption information relating to their plant or facilities on an annual basis or as requested by the CCO.

The CCO uses the consumption information provided by Retailers and Large Consumers to model the impact of events or outages on the system to determine what level of load curtailment is required to stabilise the system.

The Regulations provide for 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.

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

Supply 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

During a Critical Contingency Event

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.
- 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.

1. Notification of Potential Critical Contingency

The CCO may 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.

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.

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

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 must promptly comply with the curtailment or restoration directions set out in the TSO notices by instructing their consumers to comply with such directions. Large consumers must comply by curtailing their gas use as required by the curtailment instructions.

Revised demand curtailment directions may be issued following the initial notice as the event develops.

Retailers and Large Consumers must provide updates on compliance with the TSO directions at the intervals advised in the curtailment notices. FGL requires Retailers to use the “Combined Large Consumer & Retailer Update” Excel spreadsheet for this purpose. This template is available on the TSO website www.oatis.co.nz

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.

If it is evident that a Consumer is not complying with the directions of the Retailer, the CCO will notify the Retailer who must contact the Consumer and direct it to comply with the curtailment direction.

If it is evident that a Large Consumer is not complying with the directions of the TSO, FGL representatives will make direct contact with the Large Consumer and seek compliance.

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 to the TSO who will notify Retailers and Large Consumers. 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 reasonably expected demand. The provisions of the regulations are now also terminated (except for post event reporting and imbalance methodology calculations).

After a Critical Contingency Event

Incident Report

The CCO is required to publish an Incident Report as soon as reasonably practicable, but no later than 5 business days after terminating a Critical Contingency. This report must be prepared in consultation with the affected Transmission System Owner. The report must state:

- the cause of the CC; and
- the duration of the CC; and
- the actions taken by the CCO and TSO during the CC; and
- the level of general compliance by Retailers and consumers with the directions of the TSO and Retailers during the CC; and
- any other matters that the CCO considers are appropriate.

Performance Report

The CCO must prepare and publish a Performance Report within 30 business days, or as otherwise agreed, after terminating a CC. This report must be prepared in consultation with the TSO and any other parties considered necessary. The report must:

- assesses the effectiveness of the CCMPs, the communications plan, and the information guide; and
- assesses the extent to which it considers that these regulations, the CCMPs, the communications plan, and the information guide achieve the purpose of these regulations; and
- identify, where applicable, any amendments to these regulations, the CCMPs, the communications plan, and the information guide that it considers would better achieve the purpose of these regulations.

Gas Usage Contrary to Curtailment Directions

As soon as practicable after the termination of a CC, the GIC must obtain and analyse consumption data to ascertain whether it indicates that any consumer installation continued to use gas contrary to a curtailment direction.

Imbalance Methodology and Critical Contingency Cash Outs

The CC imbalance process provides incentives to assist in avoiding or mitigating the severity of a CC. Following a non-regional CC event, the GIC will appoint an industry expert to determine a price for the CC imbalances and the TSO will calculate the CC imbalances. Parties with a negative contingency imbalance may have to make a payment whereas parties with a positive contingency imbalance may receive a payment. The GIC manage the financial transactions arising.