



Critical Contingency Operator 2010 Test Exercise Report

“EXERCISE INITIAL”

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0. Introduction

The Critical Contingency Operator (CCO) must instigate exercises in accordance with r34(1) of the Gas Governance (Critical Contingency Management) Regulations 2008 to test the following.

- That Critical Contingency Management Plans (CCMPs) comply with r25 and give effect to the purpose of the regulations:- *"The purpose of the regulations is to achieve the effective management of critical gas outages and other security of supply contingencies without compromising long-term security of supply."*
- That contact details included in CCMPs in accordance with r25 are current.
- That the list of emergency contact details maintained by Retailers in accordance with r43 is current.

In accordance with r34(4) a test exercise must be instigated by the CCO at least once every 12 months, except if there has been a critical contingency within that 12-month period and the performance report produced in accordance with r65 confirms that the CCMP meets the requirements described in r34(1). Participation in a CDEM training exercise that tests the matters in r34(1) would be classed as a test exercise.

The CCO consulted with Transmission System Owners (TSOs) about the test exercise in accordance with r34(1). TSOs, interconnected parties, shippers, retailers, and large consumers were reasonably requested by the CCO to participate in the exercise in accordance with r34(2). Feedback on the exercise was invited from all participating parties.

TSOs must provide a report to the CCO within 10 business days of completing a test exercise in accordance with r34(5). Vector and MDL provided reports to the CCO on 12 March 2010.

TSOs may prepare proposed amendments to CCMPs in accordance with r34 (6). Unless the amendments are immaterial, TSOs must consult and submit proposed amendments to GIC in accordance with r26-30.

Under Schedule 2 of the SPACCO, as amended by letter dated 22 October 2009, the CCO must prepare and provide a report to the Gas Industry Company (GIC) within 10 business days of receiving test exercise reports from the TSOs as required by r34(5).

During the exercise an independent observer from the industry body was present in the CCO office and in the TSOs Gas Operations Control. The CCO also placed an independent observer in the TSOs Gas Operations Control. The observations and recommendations in this report are based on the following information.

- reports received from independent observers
- feedback received from exercise participants
- TSO reports received on 12 March 2010
- joint CCO/TSO exercise debriefing held on 03 March 2010
- CCO event log

All issues raised in the feedback and reports have been considered by the CCO and included in the report where considered material.



1. Pre Test Exercise Audit of TSO by CCO

The pre test exercise elements were audited on the day prior to the exercise. Items 1.1, 1.2 and 1.3 were audited by holding a pre-arranged interview with Graham Alexander (Vector Gas Operations Manager & MDL Technical Operator) and Grant Lander (Vector Lead SCADA Operations Engineer). Item 1.4 was audited by Mark Richards (CCO Assistant) by obtaining and analysing the up to date contact lists contained within Vector and MDL OATIS systems.

Item	Element	Ref	Description
1.1	Threshold limits are appropriate and set in accordance with Schedule 1	R25(1)(a)	<p>Check contents of CCMP are still representative of way the system operates and that any changes have been considered and appropriate amendments proposed or made.</p> <p>Check that SCADA alarms set for the defined locations for the measurement of pressure and approach time are set up and operating correctly.</p>

Observations & Recommendations

Kupe Production Station was commissioned and started supplying gas into the Vector transmission system in late 2009. This affects the flow direction in the Vector 300line and has resulted in reduced quantities of gas entering the Vector transmission system from the MDL transmission system at Frankley Road welded point.

The defined threshold at KGTP inlet is 4 hours to 37.5 barg. It has been found that the 4 hour time limit is often approached due to the way in which the 300line operates and its greater sensitivity to pressure and demand fluctuations. The commissioning of Kupe Production Station has changed this dynamic and gives greater flexibility to maintain satisfactory pressure at the inlet to KGTP.

Recommendation 1.1(a) : Vector to review and report on the suitability of the existing threshold values defined at KGTP based on how the introduction of Kupe Production Station has affected operation of the 300line.

All the defined threshold values for the Vector and MDL transmission systems are monitored within SCADA and are displayed on the gas controllers operating screens. Pressure readings are taken every five minutes, averaged and projected over the following hour to calculate the time it would take to reach Pmin threshold values. This provides a reasonable degree of dampening to avoid false alarms when sudden but acceptable pressure fluctuations occur. New SCADA alarms have been set up to activate if a minimum time threshold is breached. The monitoring system has only been in operation since early summer 2009 so actual performance of the system in relation to the defined threshold values has not been experienced during high demand winter conditions.

Recommendation 1.1(b) : Vector to monitor performance against the threshold values throughout winter 2010 and carry out a post winter review and report on the suitability of the threshold values and the rate of change calculation in SCADA.

Recommendation 1.1(c) : Vector to set up alarms for the threshold values based on the "low" and "low-low" concept applied to other monitored points on the system. This will provide advance warning that a threshold value may be breached and allow for a Potential Critical Contingency to be declared by the CCO if required.



Item	Element	Ref	Description
1.2	The descriptions of the events that the TSO considers may feasibly result in a breach of a threshold are complete, valid and up to date.	R25(1)(b)	Check contents of CCMP are still representative of way the system operates and that any changes (including recommendations arising from prior exercises or actual CC events) have been considered and appropriate amendments proposed or made.

Observations & Recommendations

It was identified that there was a credible but unlikely threat that Non-Routine Operations (NROs) on the transmission system may result in a breach of a threshold. This is not included in section 2.2 of either the Vector or MDL CCMPs.

Recommendation 1.2(a) : Vector and MDL to amend section 2.2 of their CCMPs to include NROs and include the CCO on the NRO circulation list. This will allow the CCO to operate at a heightened state of readiness for the duration of any operations should conditions result in a breach of a threshold.

Item	Element	Ref	Description
1.3	The actions that the TSO considers it may feasibly take to remedy any breach of a threshold are complete, valid and up to date	R25(1)(c)	Check contents of CCMP are still representative of way the system operates and that any changes have been considered and appropriate amendments proposed or made.

Observations & Recommendations

All contents of the Vector and MDL CCMPs were found to be up to date.

Item	Element	Ref	Description
1.4	The contact details for potentially affected parties are valid, up to date and complete.	R25(1)(i)	Check TSO OATIS details are fully populated in relevant fields.

Observations & Recommendations

Copies of the Vector and MDL contact reports generated in OATIS were obtained for review. The contacts are used by OATIS to automatically send emails and SMS text messages to affected parties alerting them to the existence of the full notices in OATIS. The full notice is not sent with the email or text alert and affected parties have to access the notices on the OATIS website.

The MDL report includes listings for Shippers, Large Consumers, Upstream Gas Producers & Interconnected Parties. All entries contained details in the SMS & email fields. Contact details are used on a frequent basis to give notification of general events on the MDL transmission system. Users are expected to maintain and update their contact details and the MDL SO posts a public OATIS Notice at the start of each month, reminding OATIS users to review and update their contact details.

The Vector report includes listings for Shippers, Retailers, Large Consumers, Upstream Gas Producers, Upstream Gas storage & Gas Distributors. Details were complete for all Shippers, Retailers & Gas Distributors. Specific direct contact details were absent for the Large Consumers, Upstream Gas Producers & Gas Storage. In most cases the Shipper from/to these sites was also the operator of the site and their details were available. No regular reminders are issued to OATIS users to review and update their contact details.



Recommendation 1.4(a) : Vector to post a public OATIS Notice at the start of each month reminding OATIS users to review and update their contact details.

Recommendation 1.4(b) : Unlike MDL OATIS there are some parties that are communicated to by Vector OATIS who are unlikely to regularly interact with OATIS. Vector to send regular reminders outside of OATIS to these parties reminding them to review and update their details.

Phone numbers for the 24/7 direct contact with control rooms at Large Consumers are maintained on a list in Gas Control. This list was found to be complete but no formal review and update process is in place.

Recommendation 1.4(c) : Vector to put a process in place to regularly check the validity and maintain Large Consumer control room contact numbers.



2. CCO Test Exercise Elements

Item	Element	Ref	Description
2.1	CCO contact details held for the purposes of communicating notices are valid, up to date and complete.	CCO-005 R51	Check with a selection of contacts that communications were received as appropriate from CCO.

Observations & Recommendations

General feedback was received from a number of participants about the exercise. This feedback included comments about the receipt of notices by email, SMS text alerts and reference to postings on CCO OATIS. It can be inferred from this feedback that communications were received as appropriate from the CCO during the exercise.

Following the issue of the exercise commencement notice, one email was returned due to an undeliverable address being used. This was due to a misspelling and was corrected in the master contact list during the exercise. All subsequent email notices during the exercise did not receive any undeliverable return messages.

The CCO employs a procedure to check all email and SMS text alert contact details on the first Monday of each month. Undeliverable email messages are monitored and SMS test alert recipients are requested to acknowledge receipt. On an annual basis the CCO will contact all recipients by phone to check and confirm all contact names and numbers.

Recommendation 2.1(a) : CCO to develop and implement a process to monitor the success rate for the receipt of acknowledgements of SMS text alert test messages and to follow up non-acknowledgements within a set time scale.

Item	Element	Ref	Description
2.2	CCO process for determining and declaring critical contingency.	CCO-003 CCO-006 R48 R49 R51	Observe how the CCO makes these decisions and acts accordingly.

Observations & Recommendations

At 08:40 the CCO received a call from the duty Vector/MDL TSO Gas Controller giving information about the scenario. At this stage no information about any damage to the pipeline was available apart from that a land slip had been reported by the landowner and that Vector had dispatched personnel to investigate the report further.

At 09:03 the TSO Incident Controller briefed the CCO Duty Manager about the requirement to isolate a 25km length of the Maui pipeline between Pukeruahe MLV and Mokau CS to repair a dented section of pipeline caused by the landslip.

At 09:12 the CCO made a determination that a critical contingency had occurred based on reasonable expectation that a breach of the defined threshold at Rotowaro would be unavoidable in these conditions. The CCO Duty Manager did not deem it appropriate to declare a potential critical contingency given the nature of the event and requirement to act quickly to prevent a breach of the pipeline thresholds.



Item	Element	Ref	Description
2.3	Protocol used by CCO to issue notices during a critical contingency.	CCO-003 CCO-006 R53 R59	Observe how the CCO manages the issue of notices in accordance with Information Guide and Communications Plan.

Observations & Recommendations

A summary of all the communications sent by the CCO and TSO is included in Appendix 1. Also included in Appendix 1 are copies of all the CCO published OATIS notices, email notices and SMS text alerts. Notices were given in accordance with regulations and processes described in the CCO Information Guide and Communications Plan.

Feedback was received from a number of exercise participants about the clarity and content of the notices. A full analysis of the material feedback received has identified some improvements that could be made which are covered by the following recommendations.

Recommendation 2.3(a) : The concept of running real time along side exercise time created some confusion for some participants. When future exercises are conducted the CCO to consider using real time only.

Recommendation 2.3(b) : The curtailment and restoration notices did not contain any wording alongside the consumers not affected by the critical contingency. This created uncertainty as to what was being directed in the notice. CCO to ensure that commentary is included for all bands on curtailment and restoration notices even if a band or Large Consumer is not affected.

Recommendation 2.3(c) :

- Some of the notices contained small typos and spelling errors.
- The critical contingency declaration and termination notices were published as "non-critical" in CCO OATIS. All notices should have been published as "critical".
- The direction for Te Rapa Dairy to curtail demand was issued separately and after the direction to curtail demand at Huntly and Southdown power stations. The direction for curtailment of all band 1b Large Consumers should have occurred on the same notice.
- The time given for Te Rapa Dairy to curtail to zero demand on the SMS text alert was inconsistent with that given on the OATIS and email notices.

CCO to check and proof read draft notices before publication and issue and build this step into the documented CCO procedures.

Recommendation 2.3(d) : The notices contained curtailed and restored gas flow rates for Large Consumers in standard cubic metres per second (SCMS). It would be preferable if the flow rate could also be included in Giga Joules per Hour (GJ/h). CCO to amend the template notices to also include this information.

Recommendation 2.3(e) : One of the restoration notices included a direction for Huntly Power Station to increase demand to a set value. If gas is not then taken at this quantity it may be interpreted that non-compliance with the direction has occurred. CCO to amend the wording used in notices to reflect that gas is available to be taken again up to a specified quantity.

Recommendation 2.3(f) : The affected gas gates were only included on the curtailment notices once direction to curtail band 2-6 Consumers was given. It would be useful if this information could be included on all curtailment notices even if the band 2-6 consumers are not being directed to curtail as it would allow more time for Retailers to prepare to contact Consumers. CCO to amend the template notices to also include this information.



Recommendation 2.3(g) : The first demand restoration notice contained incorrect wording in the numbered headings. The wording was for demand curtailment. CCO to correct the template notices headings.

Recommendation 2.3(h) : Some exercise participants in CDEM groups who received notices found the information difficult to understand. CCO to ensure as wide a coverage as possible for CDEM groups during regular refresher and briefing sessions.

Recommendation 2.3(i) : Curtailment of band 2-4 Consumers supplied from the distribution systems connected to the small off takes from the Maui pipeline north of Mokau CS were not included in the curtailment notices. These should have been included for consistency with the curtailment notice. CCO to put in place systems and procedures to ensure curtailment from these gas gates is included in curtailment directions.

Recommendation 2.3(j) : Notices were prepared and issued by the CCO without consultation over the wording with the TSOs. In certain situations there may not be time for the CCO and the TSOs to consult over draft notices prior to publication by the CCO. CCO to amend standard procedures to include this step prior to publishing notices.

Recommendation 2.3(k) : Some participants expressed that phone contact in addition to the receipt of written notices would be beneficial. The written notice system is designed to ensure all parties receive the same information at the same time. Phone calls can be time consuming and can not be made simultaneously. CCO to explore if a select group of stakeholders should be contacted by phone following the issue of written notices during a critical contingency. Written notices will however remain as the prime formal communication method.

Recommendation 2.3(l) : The three demand curtailment notices issued did not have sequential numbers included in the headings. CCO to revise notice templates and procedures to include sequential numbers to provide additional clarity.

Recommendation 2.3(m): The date and time stamp of notices published on CCO OATIS can only be accessed by opening the full notice. It would be useful if the time and date of publication also appeared on the front page with the notice listing. CCO to investigate incorporating time and date stamp on OATIS front page notice listing.

Item	Element	Ref	Description
2.4	CCO processes for termination of critical contingency.	CCO-003 CCO-006 R60 R61 R62	Observe how the CCO makes these decisions and acts accordingly.

Observations & Recommendations

It was established at 14:12 during discussions with the TSO Incident Controller that the pipeline had been repaired and demand restoration could commence. At 16:07 the final demand restoration notice was issued allowing all curtailed Consumers to take full normal demand. At 16:15 following monitoring of the stability of the system, the CCO determined that the critical contingency could be terminated based on the system being capable of supplying gas to all consumers at the level which was supplied immediately before the event that gave rise to the critical contingency.



Item	Element	Ref	Description
2.5	The processes for demand curtailment and restoration are consistent with CCO requirements and the objectives of Schedule 2.	CCO-003 CCO-006	CCO curtailment and restoration processes, procedures and communications operate effectively and in the correct order.

Observations & Recommendations

Notices were issued in the correct order and the process is commented upon in item 2.3 above.

At appropriate times throughout the exercise the CCO contacted the Transpower Security Desk by telephone to discuss the implications of the required curtailment levels. This element was found to be particularly useful in gaining mutual understanding of each parties processes and establishing contact in the context of a simulated critical contingency.

Demand curtailment was carried out in the required order i.e. from band 0 – 6 in that order.

Demand restoration was not carried out in the reverse order as required by Schedule 2 3(1) due to the scenario having caused rolling power outages in the Auckland area. Limited supplies were restored to Huntly Power Station (band 1b) prior to Consumers in bands 2-4 to alleviate the rolling power outages. This decision was consistent with Schedule 2 3(2), section 4.5 of the MDL CCMP and section 5.5 of the Vector CCMP.

Item	Element	Ref	Description
2.6	CCO demand modelling systems operate as expected and provide consistent results.	CCO-010	Observe how the demand modelling system is understood and used by CCO personnel and how results are used to inform curtailment and restoration decisions.

Observations & Recommendations

The CCO demand modelling systems operated as expected. The SCADA data downloads automatically updated the systems as expected and the model calculated pressures and flows within the expected accuracy of actual pressures and flows derived from SCADA.

The validated demand modelling system was then used to predict pressures and flows in the system by adapting the model to simulate the event. Demand levels were then reduced in the model to predict the survival times at different demand levels to develop a demand curtailment plan.

Three discrete models were used during the event due to the interrelationship between the MDL and Vector systems. The models used were the MDL pipeline, Vector northern pipeline and Morrinsville lateral.

The TSO did not carry out any demand modelling during the exercise so it was not possible to compare results.

The model could not be validated and assessed against ongoing conditions due to the event being an exercise. Similarly the model could not be validated or assessed against restoration decisions.

Recommendation 2.6(a) : The CCO demand modelling system should be fully assessed and compared against actual pipeline conditions following an actual critical contingency to ensure consistency and validity.



3. TSO Test Exercise Elements

Item	Element	Ref	Description
3.1	The contact details for affected parties are valid, up to date and complete.	R25(1)(i)	Check with selection of contacts that communications were received as appropriate from TSOs.

Observations & Recommendations

The MDL and Vector OATIS contact details were provided to the CCO and a random selection of operational contacts were selected. Phone calls were made to the selected contacts to check that the contact numbers were valid and that email and SMS text alerts had been received.

12 calls were made in total. There was no reply from one number, two numbers were found to be incorrect and had been replaced by new numbers which were not on the contacts list and one contact no longer worked for the listed organisation.

Recommendation 3.1(a) : Vector and MDL to consider introducing a procedure where test emails and SMS text alerts are sent on a regular basis to OATIS contacts. Email messages should be monitored for delivery failure and recipients should be requested to acknowledge receipt of SMS text messages with any non-responses followed up within a set time scale.

Item	Element	Ref	Description
3.2	Protocol for informing CCO of a potential Critical Contingency is valid and up to date.	CCMPs R25(1)(k)	Monitor TSO protocols and communications between CCO and TSOs during test exercise.

Observations & Recommendations

The first exercise interject was given at 08:05 and the Duty Gas Controller informed the TSO Duty Officer at 08:21. The CCO Duty Manager received a phone call from Gas Control at 08:40 giving details about the event (refer to CCO event log in Appendix 3). The CCO Duty Manager decided that it was not required to declare a potential critical contingency based on this information as gas supplies had not been affected and Vector were to investigate further and advise on findings.

Recommendation 3.2(a) : There was a delay between the Duty Gas Controller informing the Duty Officer and the CCO Duty Manager about the event. TSOs to put a process in place to ensure that the CCO Duty Manager is informed of an event immediately following notification to the TSO Duty Officer.

The CCO Duty Manager received written confirmation of this phone call by email from Gas Control at 08:58. The email was in free text with no structured format.

Recommendation 3.2(b) : TSOs to develop a template email for the notification of a potential critical contingency to the CCO. This will ensure all details are provided in a consistent manner.

The CCO Duty Manager received a phone call from the TSO Incident Controller at 09:03 giving further details about the event and the decision to isolate a section of the Maui pipeline (refer to CCO event log in Appendix 3).

The communications from the TSO were consistent with the processes described in the Vector and MDL CCMPs.



Item	Element	Ref	Description
3.3	The processes for demand curtailment and restoration are consistent with CCO requirements and the objectives of Schedule 2.	CCMPs R25(1)(d) R54	Monitor TSO curtailment and restoration processes, procedures and communications during the exercise operate effectively and in the correct order.
Observations & Recommendations			
<p>The TSOs issued demand curtailment and restoration notices in accordance with the regulations and the CCMPs following receipt of notices from the CCO. As the content of the CCO notices is broadly similar to the content required in the corresponding TSO notices, the CCO notices were used as templates for producing the TSO notices.</p> <p>The TSO notices issued following receipt of the CCO notices are summarised in Appendix 1.1. All notices were published as critical notices. The process, content and timing was consistent with the regulations and the CCMPs.</p> <p>The curtailment and restoration content of both the Vector and MDL notices included details for both the Vector and MDL systems. This is not consistent with the template notices included in the CCMPs and may cause confusion to parties receiving the notices.</p> <p>Recommendation 3.3(a) : TSOs to review the process utilised for the preparation of notices to ensure that they reflect their particular system and that the templates are based on those contained in the CCMPs.</p>			

Item	Element	Ref	Description
3.4	The effectiveness and validity of the CCMP communications plan.	CCMPs R25(1)(e)	Observe how all communications issued under the CCMP are made and how they reflect the situation. Check for understanding, completeness and validity.
Observations & Recommendations			
<p>The TSO notices issued following receipt of the CCO notices are summarised in Appendix 1.1. All notices were published as critical notices. The process, content and timing was consistent with the regulations and the CCMPs.</p> <p>It was noted that some of the information contained in the Vector notices was out of date or incomplete.</p> <p>Recommendation 3.4(a) : Vector to review the content of notices and remove references to NGC and include details of the OATIS web site address.</p> <p>When the TSOs made phone contact with the affected Large Consumers plant control rooms it was observed that contact lists were not up to date and that the verbal message conveyed was not carried out in a consistent manner.</p> <p>Recommendation 3.4(b) : TSOs to create formal master lists of Large Consumer control room emergency contact numbers and put process in place to regularly check and maintained these lists. TSOs to create template format or script to be used when making phone contact with Large Consumers control rooms to ensure a consistent message is given.</p> <p>Use of the Large Consumer and Retailers compliance update forms was not consistent with the requirements of the regulations or the CCMPs. This issue is covered in element 4.3 of this report.</p>			



Item	Element	Ref	Description
3.5	The suitability of TSO arrangements to provide suitably qualified persons and their contact details for giving/receiving communications to the CCO and giving directions in accordance with the CCMP.	R25(1)(f)	Observe how the TSO manages the exercise and allocates people into specific roles. Monitor how communications to/from the CCO are given and received and actions taken.

Observations & Recommendations

Vector and MDL operates a 24/7 Gas Operations Control centre that is manned by an experienced and qualified Duty Gas Controller at all times. The Duty Gas Controller would normally be the first point of contact for receiving information about an event that may cause a critical contingency. Information may be received by telephone or be through 24/7 monitoring of the transmission system SCADA. Adequate processes, procedures, check sheets and training are in place for Duty Gas Controllers to manage communications with the CCO in accordance with the CCMPs. These systems operated successfully during the exercise.

Vector and MDL also operate a roster to make available a Duty Officer on a 24/7 basis. There are a number of Duty Officers who participate in the roster arrangements. Duty Officers are senior management personnel based in New Plymouth associated with the operation/management of the transmission systems. Duty Officers typically have broad knowledge and experience of the gas industry and the transmission system and are generally qualified to tertiary standard in relevant areas and are members of professional engineering/management institutions. The Duty Gas Controller will inform the Duty Officer immediately if they believe an event has the potential to cause a critical contingency. The Duty Officer then becomes responsible for direct communication with the CCO and will often assume the role of TSO Incident Controller. Adequate processes, procedures, check sheets and training are in place for Duty Officers to manage communications with the CCO in accordance with the CCMPs. This operated successfully during the exercise with the exception of the forwarding of Large Consumer/Retailer compliance updates, none of which were forwarded to the CCO as required by the CCMPs.

Recommendation 3.5(a) : TSOs to review and improve their processes to ensure that compliance updates from Large Consumers and Retailers are forwarded to the CCO as soon as is reasonably practical following receipt.

Item	Element	Ref	Description
3.6	The effectiveness and suitability of arrangements to determine and direct the restoration of gas supply in an order different to that set out in the curtailment arrangements.	CCMPs R25(1)(g)	Observe how the TSO considers and applies these processes and procedures where applicable.

Observations & Recommendations

Following discussion between the CCO and the TSOs demand restoration was not carried out in the reverse order as required by Schedule 2 3(1) due to the scenario having caused rolling power outages in the Auckland area. Limited supplies were restored to Huntly Power Station (band 1b) prior to Consumers in bands 2-4 to alleviate the rolling power outages. This decision was consistent with Schedule 2 3(2), section 4.5 of the MDL CCMP and section 5.5 of the Vector CCMP.

During the discussion it was evident that the TSO Incident Controller was not fully familiar with the provisions of section 4.5 of the MDL CCMP and section 5.5 of the Vector CCMP in relation to r25(1)(g).



Recommendation 3.5(a) : During the next TSO CCMP refresher training the TSO to include a specific section on alternative demand restoration arrangements.

Item	Element	Ref	Description
3.7	Processes for providing information to the CCO under Regulation 38 are operating effectively and efficiently	CCMPs R25(1)(j)	Check that all information and systems provided by the TSOs for OATIS and SCADA access operate correctly and appropriately.

Observations & Recommendations

OATIS access worked correctly and as expected during the exercise.

The download of real time SCADA data into an Excel spreadsheet for the CCO to utilise for demand modelling purposes worked correctly and as expected during the exercise.

The SCADA terminal installed in the CCO office for monitoring the transmission system conditions was not yet operational. Information had to be gathered by visiting Gas Control.

Recommendation 3.6(a) : Vector to expedite the completion and commissioning of the SCADA read-only terminal in the CCO office.

Item	Element	Ref	Description
3.8	The effectiveness, consistency and validity of the imbalance methodology with regard to information to be used by the TSO, how contingency imbalances will be allocated to affected parties and how information will be provided to GIC for invoicing allocated imbalances.	R25(1)(h)	TSOs to review the imbalance methodology in CCMPs and the business processes required to support that and to confirm to the CCO whether their processes are adequate and/or whether changes are required.

Observations & Recommendations

It was not possible to test this aspect during simulated test conditions. Section 6 of both the Vector and MDL test exercise reports completed in accordance with r34(5) include information on this element.

Item	Element	Ref	Description
3.9	CCMPs are consistent with the MPOC and VTC.	R25(2)	TSOs to review that the CCMPs are consistent with the transmission codes to the extent possible and that no code changes have occurred, since the CCMP was approved, that would render any aspect of the CCMP ineffective.

Observations & Recommendations

It was not possible to test this aspect during simulated test conditions. Section 6 of both the Vector and MDL test exercise reports completed in accordance with r34(5) include information on this element.



4. Retailers, Large Consumers, Consumers and Distributors Test Exercise Elements

Prior to the test exercise Retailers were requested to provide the CCO with lists of emergency contact numbers held for band 0-5 Consumers. All retailers supplied lists as requested. Approximately 500 consumers in bands 2-4 were affected by the exercise. A random selection of approximately 10% was taken from the lists provided and phone calls were made to the consumers the week immediately following the exercise. The results of the phone calls are shown in the table below.

Retailer	Number of Consumers Contact Attempts	No Answer	Phone Disconnected or Incorrect Number	Don't know if call received.	Received Call?		If call received was it understood?
					Yes	No	
Genesis	10	0	1	1	3	5	0
Greymouth	1	1	0	0	0	0	0
Nova	18	4	5	3	1	5	1
OnGas	19	6	2	5	6	0	2
Contact	10	3	1	4	1	1	1
Totals	58	14	9	13	11	11	4

Item	Element	Ref	Description
4.1	Each Retailer holds and maintains a valid, up to date and complete list of the emergency contact details for consumers with demand >2TJ/annum.	R43(1)	Contact a selection of Consumers known to have been affected by the exercise to confirm appropriate contact from Retailers.

Observations & Recommendations

The consumer contact lists supplied by Retailers were fully populated with emergency contact names and telephone numbers.

There was no answer from 24% of the calls made. A further 15% of calls made found that the phone number was disconnected or the call had been made to the incorrect number. This is indicative of the proportion of unsuccessful calls to Consumers that may occur during an actual critical contingency.

Recommendation 4.1(a): Retailers to develop and implement systems and procedures to regularly check that Consumer emergency contact details are valid and up to date.

Item	Element	Ref	Description
4.2	Removal of consumer emergency contact details of a consumer from list within 40 business days of that consumer concluding a switch of Retailers	R43(2)	Contact a selection of Consumers known to have been affected by the exercise to confirm contact from correct Retailer.

Observations & Recommendations

All Consumers contacted confirmed their Retailers to be those on the corresponding lists provided to the CCO.



Item	Element	Ref	Description
4.3	Retailers and Large Consumers to comply with curtailment directions and provide compliance updates to TSOs.	R55	Contact a selection of Consumers known to have been affected by the exercise to confirm appropriate contact from Retailers. Monitor the frequency and content of compliance updates provided to TSOs.

Observations & Recommendations

Compliance updates were not received by the TSOs from the affected Large Consumers at Southdown Power Station and Te Rapa Dairy.

Recommendation 4.3(a): TSOs to contact each Large Consumer connected to their transmission systems to clarify contact details, processes and procedures contained in CCMPs and the obligations Large Consumers have under the regulations.

As noted in recommendation 3.5(a), Vector or MDL did not forward any compliance notices to the CCO as required by the CCMP. The notices received by Vector and MDL were included in the appendices of the test exercise reports provided in accordance with r34(5). Appendix 2 gives a summary of the compliance updates received from each Large Consumer and Retailer. Updates were varied and inconsistent indicating either lack of clarity in the processes included in the CCMPs or a reluctance of some Large Consumers or Retailers to participate fully in the exercise. Two Retailers sent email statements direct to the CCO rather than the TSO.

Recommendation 4.3(b): TSOs to arrange to deliver a specific workshop or training session (either individually or jointly with the CCO) to provide more information and clarity on the requirements and processes associated with the compliance updates required under r55.

Item	Element	Ref	Description
4.4	Retailers to instruct consumers to curtail demand in accordance with directions from TSO.	R56	Contact a selection of Consumers known to have been affected by the exercise to confirm appropriate contact and instructions from Retailers.

Observations & Recommendations

19% of the calls made resulted in an indication that Consumers received calls from Retailers instructing them to curtail demand. It is recognised that the random sample of consumers selected may not be fully representative and that some Retailers may not have elected to contact Consumers as part of the exercise.

Recommendation 4.4(a): GIC to request Retailers to provide their own records of calls made to affected consumers during the exercise so that a more accurate assessment of compliance can be made.



Item	Element	Ref	Description
4.5	Consumers to comply with directions from Retailers	R57	Contact a selection of Consumers known to have been affected by the exercise to confirm appropriate contact from Retailers and their understanding of communications received.

Observations & Recommendations

7% of the calls made resulted in an indication being obtained from Consumers that they understood what to do when instructed to curtail demand.

Recommendation 4.5(a): Retailers to contact all their Consumers and provide them with information about critical contingencies and their obligations under the regulations when directed to curtail demand. The CCO will coordinate the development of a general industry communication that could be used for this purpose.

Item	Element	Ref	Description
4.6	Gas Distributors to act consistently	R58	Contact Distributors and check on the communications received and the types of actions Distributors would have taken during the test exercise including communication with Retailers and decisions about alternative restoration order if applicable.

Observations & Recommendations

During the demand curtailment and restoration stages there was no evidence that Gas Distributors liaised with Retailers. The gas distribution networks predominantly affected by the exercise were the Vector networks in Auckland and Waikato. Feedback received from Vector gas distribution indicated that CCO messages were received during the exercise and that no contact from other parties was made or received.

Recommendation 4.6(a): Gas Distributors and Retailers to review their existing emergency response arrangements and update them where necessary to ensure coordinated and collaborative processes are documented and understood.



5. Other Identified Issues

5.1 Demand Restoration Process

During the demand restoration stage it became apparent that there wasn't a satisfactory mechanism in place to facilitate expedient re-supply of gas to re-pack and re-pressurise the system. The only mechanism that appeared to be in place was a resumption of normal gas nominations cycles but it was unclear about how this would take place prior to the critical contingency being terminated and it is likely that this process may cause a significant delay in restoring normal supplies. It also appears that there are no mechanisms in the nomination process to initiate injection before off take.

It is likely that the pressure in the isolated section of the Maui pipeline would have reduced to approximately 32barg should this have been a real event. Assuming that line pressure would need to be increased to approximately 45barg before the critical contingency would be terminated, it is estimated that approximately 50TJ of gas would be required to re-pack and re-pressurise the isolated section.

In addition to this the section of pipeline between Pukeruahe MLV and Mokau CS which was completely depressurised to facilitate the repair would need to be purged and re-pressurised from atmospheric pressure to 32barg. It is estimated that approximately 15TJ of gas would be required for this process.

It is likely in this scenario that the pressure in the unaffected parts of the system may have increased due to gas continuing to be supplied into the system. However it is likely that the volume of gas available would not be sufficient to re-pack and re-pressurise the isolated section.

The purpose of GGCCMR is aimed at avoiding compromising long-term security of supply by curtailing demand expediently and retaining a sufficiently pressurised system. Demand restoration will commence under r53(1)(e) when the CCO is satisfied that the system has recovered to position to allow this. This infers that the TSO should be responsible for managing system recovery to enable demand restoration to commence.

Recommendation 5.1(a): TSOs to consider how to resolve this issue and ensure that appropriate mechanisms are introduced as soon as reasonably practicable aimed at removing any potential identified delays that may occur when stabilising the transmission system in advance of demand restoration commencing. The possibility of shippers continuing to nominate as usual throughout a critical contingency could be considered.

5.2 Huntly Power Station Curtailment Band Classification

The four Rankine units at Huntly are capable of operating using coal as an alternative fuel. Genesis notified the CCO under r40 that the fuel supply to Huntly is classed as curtailment band 1b i.e. no alternative fuel capability. Assuming coal supplies are readily available for the four Rankine units, the gas supply to these units should be classed as 1a.

Recommendation 5.2(a): CCO to take up this matter direct with Genesis and inform GIC of outcome.



5.3 TSO Demand Modelling Capability

During the exercise the TSOs did not carry out any demand modelling to simulate the exercise conditions as discussed in 2.6. This is an essential step for the TSO as it will establish estimated survival times, assist in developing plans to stabilise the system and provide sense checking with CCO demand modelling calculations.

Recommendation 5.3(a): TSOs to review their demand modelling capabilities and systems and ensure that appropriate personnel are adequately trained and available to carry out this task during critical contingencies.



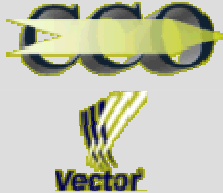
Appendix 1 – Exercise Notices & Communications

Appendix 1.1 – CCO and TSO Notice Summary

Notice Description	Exercise Day/Time	CCO OATIS Notice Time Posted	CCO OATIS ID#	CCO Notice Sent	Email Time	CCO SMS Text Alert Sent	Vector TSO OATIS Notice Time (ID#)	MDL TSO OATIS Notice Time (ID#)
Exercise Commenced		n/a	n/a	08:01		08:01	n/a	n/a
Critical Contingency Declaration	17:30 25 Feb	09:22	7139	09:24		09:27	09:30 (7141)	09:30 (7140)
Demand Curtailment	20:00 25 Feb	10:28	7143	10:31		10:34	10:36 (7145)	10:36 (7144)
Revised Demand Curtailment	20:10 25 Feb	10:44	7146	10:45		10:47	10:51 (7148)	10:53 (7147)
Revised Demand Curtailment	23:00 25 Feb	11:54	7150	11:58		11:59	12:02 (7152)	12:04 (7151)
R59 Notification	17:00 28 Feb	n/a	n/a	13:39		13:42	n/a	n/a
Situation Update	06:00 26 Feb	13:45	7158	n/a		n/a	14:10 (7159)	14:10 (7160)
Demand Restoration 1	14:00 02 Mar	14:59	7163	15:01		15:02	15:09 (7165)	15:09 (7164)
Demand Restoration 2	18:00 02 Mar	15:30	7166	15:33		15:37	15:36 (7167)	15:40 (7168)
Demand Restoration 3	22:00 02 Mar	16:03	7169	16:06		16:07	16:11 (7171)	16:11 (7170)
Critical Contingency Termination	23:00 02 Mar	16:22	7172	16:23		16:23	16:27 (7173)	16:27 (7174)
Exercise Terminated		n/a	n/a	16:42		16:45	n/a	n/a



Appendix 1.2 – CCO Notices Posted on OATIS



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Notice Type	CCO Non-Critical
Notice Identifier	7139
Notice Name	CCO - Exercise Initial - Critical Contingency Declaration
Published	25/02/2010 09:22
Begin Date & Time	25/02/2010 09:21
End Date & Time	02/03/2010 23:59
Notice Period	5
Required Response Indicator	Action Required
Detail	<p>25/02/2010 EXERCISE INITIAL</p> <p>Exercise Time/Date: 17:30 25 Feb 2010</p> <p>Declaration of Critical Contingency</p> <p>This Notice is issued to inform you that the CCO has declared a critical contingency under Regulation 49 of the Gas Governance (Critical Contingency Management) Regulations 2008.</p> <p>1. Event causing Critical Contingency</p> <p>Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.</p> <p>2. Areas of transmission system affected</p> <p>Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral. Vector BOP pipeline.</p> <p>3. Summary of actions being taken to resolve event</p> <p>Vector personnel and equipment on site and repair options being assessed.</p> <p>4. Guidance on Critical Contingency being classed as Regional Critical Contingency</p> <p>This event is a Regional Critical Contingency.</p> <p>Notes:</p> <p>(a) All directions issued by the CCO pursuant to the declaration of the critical contingency must be complied with.</p>



(b) Demand curtailment is not required at this stage and directions from the CCO will follow if required.

(c) Any previous notice of a potential Critical Contingency by the CCO is now terminated.

(d) The communications described in the CCO Communication Plan and TSOs CCMPs are now activated.

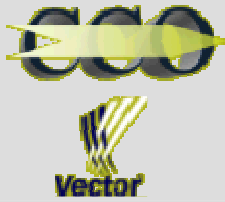
(e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

(f) This notice will be communicated by a truncated SMS message.

(g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>

(h) The CCO will notify the TSOs by telephone of this notice.
Sent by the Critical Contingency Operator





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View Notice Details

Notice Type CCO Critical

Notice Identifier 7143

Notice Name CCO - Exercise Initial -Direction to Implement Demand Curtailment

Published 25/02/2010 10:28

Begin Date & Time 25/02/2010 10:27

End Date & Time 02/03/2010 23:59

Notice Period 5

Required Response Indicator Action Required

Detail 25/02/2010

Sent by the Critical Contingency Operator
25/02/2010
EXERCISE INITIAL

Exercise Time/Date: 20:00 25 Feb 2010

Direction to Implement Demand Curtailment

This Notice is issued to inform you that the CCO has given direction to implement curtail demand under Regulation 53 (1) (d) (i) of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Curtailments to be implemented

Band 1b Large Consumers; Demand Curtailment Location & Direction
NPS00530 NEW PLYMOUTH POWER STATION
BER00653 BERTRAND RD (Methanex)
NGA00669 NGATIMARU RD (DELIVERY) (Methanex)
HPS02993 HUNTLY POWER STATION Curtail to zero SCMS by 21:00 25/02/10
OTB00301 OTAHUHU B POWER STATION Remain offline
SDN00101 SOUTHDOWN POWER STATION Curtail to zero SCMS by 21:00 25/02/10
TRC02003 TE RAPA COGENERATION PLANT
BAL08201 BALLANCE AMMONIA-UREA (Fuel)
BAL09626 BALLANCE AMMONIA-UREA (Process)
TCC00201 TARANAKI COMBINED CYCLE (TCC)

Bands 2-6; Demand Curtailment Direction

Band 2
Band 3
Band 4
Band 5
Band 6



Bands 2-6; Location of Consumers to be curtailed

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral. Vector BOP pipeline.

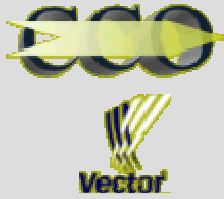
4. Summary of actions being taken to resolve event

Pipeline found to be deformed due to land slip and section isolated between MLVs at Mokau Compressor Station and Pukeruahe. Repair options being assessed by Vector – time to repair predicted to be between 2 and 5 days.

Notes:

- (a) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (b) Retailers and Large Consumers must follow directions given by TSOs to curtail demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (c) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (d) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (e) This notice will be communicated by a truncated SMS message.
- (f) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (g) The CCO will notify the TSOs by telephone of this notice.
Sent by the Critical Contingency Operator





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View Notice Details

Notice Type CCO Critical

Notice Identifier 7146

Notice Name CCO - Exercise Initial - Revise Demand Curtailmant

Published 25/02/2010 10:44

Begin Date & Time 25/02/2010 10:43

End Date & Time 02/03/2010 23:59

Notice Period 5

Required Response Indicator Action Required

Detail 25/02/2010
EXERCISE INITIAL

Exercise Time/Date: 20:10 25 Feb 2010

Direction to Revise Demand Curtailment

This Notice is issued to inform you that the CCO has given direction to revise demand curtailment under Regulation 53 (1) (d) (ii) of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Curtailments to be implemented

Band 1b Large Consumers; Demand Curtailment Location & Direction

NPS00530 NEW PLYMOUTH POWER STATION

BER00653 BERTRAND RD (Methanex)

NGA00669 NGATIMARU RD (DELIVERY) (Methanex)

HPS02993 HUNTLY POWER STATION Curtail to zero SCMS by 21:00 25/02/10

OTB00301 OTAHHU B POWER STATION

SDN00101 SOUTHDOWN POWER STATION Curtail to zero SCMS by 21:00 25/02/10

TRC02003 TE RAPA COGENERATION PLANT Curtail to zero SCMS by 21:10 25/02/10

BAL08201 BALLANCE AMMONIA-UREA (Fuel)

BAL09626 BALLANCE AMMONIA-UREA (Process)

TCC00201 TARANAKI COMBINED CYCLE (TCC)

Bands 2-6; Demand Curtailment Direction

Band 2

Band 3

Band 4

Band 5

Band 6

Bands 2-6; Location of Consumers to be curtailed

1. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station.



Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

2. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral. Vector BOP pipeline.

3. Summary of actions being taken to resolve event

Pipeline found to be deformed due to land slip and section isolated between MLVs at Mokau Compressor Station and Pukeruahe.

Notes:

(a) This notice supersedes all previous notices. It includes all demand previously directed for curtailment and all additional demands that now require curtailment.

(b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.

(c) Retailers and Large Consumers must follow directions given by TSOs to curtail demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).

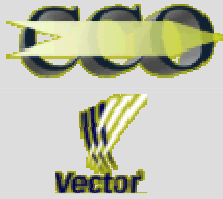
(d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.

(e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

(f) This notice will be communicated by a truncated SMS message.

(g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>

(h) The CCO will notify the TSOs by telephone of this notice.
Sent by the Critical Contingency Operator



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View Notice Details

Notice Type CCO Critical

Notice Identifier 7150

Notice Name CCO - Exercise Initial - Revise Demand Curtailment

Published 25/02/2010 11:54

Begin Date & Time 25/02/2010 11:53

End Date & Time 02/03/2010 23:59

Notice Period 5

Required Response Indicator Action Required

Detail 25/02/2010
EXERCISE INITIAL

Exercise Time/Date: 23:00 25 Feb 2010

Direction to Revise Demand Curtailment

This Notice is issued to inform you that the CCO has given direction to revise demand curtailment under Regulation 53 (1) (d) (ii) of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Curtailments to be implemented

Band 1b Large Consumers; Demand Curtailment Location & Direction

NPS00530 NEW PLYMOUTH POWER STATION

BER00653 BERTRAND RD (Methanex)

NGA00669 NGATIMARU RD (DELIVERY) (Methanex)

HPS02993 HUNTLY POWER STATION Curtail to zero SCMS by 21:00 25/02/10

OTB00301 OTAHUHU B POWER STATION Remain offline

SDN00101 SOUTHDOWN POWER STATION Curtail to zero SCMS by 21:00 25/02/10

TRC02003 TE RAPA COGENERATION PLANT Curtail to zero SCMS by 21:10 25/02/10

BAL08201 BALLANCE AMMONIA-UREA (Fuel)

BAL09626 BALLANCE AMMONIA-UREA (Process)

TCC00201 TARANAKI COMBINED CYCLE (TCC)

Bands 2-6; Demand Curtailment Direction

Band 2 Curtail all demand

Band 3 Curtail all demand

Band 4 Curtail all demand

Band 5

Band 6

Bands 2-6; Location of Consumers to be curtailed

HTK08301 HAMILTON TE KOWHAI

HTV11301 HAMILTON TEMPLEVIEW

HRU16101 HOROTIU

CAM17201 CAMBRIDGE



MTG17301 MATANGI
KIW34201 KIWITAHU (PEROXIDE)
KIW34202 KIWITAHU
MRV16301 MORRINSVILLE DAIRY FACTORY
MRV16302 MORRINSVILLE
TAT16401 TATUA
WTA16501 WAITOA
TUK06501 TUAKAU
HAR11801 HARRISVILLE
PAP06603 PAPAURA
PAP06610 PAPAURA
PUK04201 PUKEKOHE
KIG16801 KINGSEAT
GLB03401 GLENBROOK
RAM15201 RAMARAMA
DRU15101 DRURY
DRU15102 DRURY NGC
HUN15301 HUNUA
HUN15302 HUNUA (NOVA)
ALF15501 ALFRISTON
FLB15601 FLAT BUSH
WST03610 WESTFIELD
BMC17901 BRUCE MCLAREN
HEN74101 HENDERSON
WTK33901 WAITOKI
WTK33902 WAITOKI B
WRK18901 WARKWORTH
WEL18301 WELLSFORD
MUT19001 MAUNGATUROTO
MSD01801 MARSDEN POINT DIRECT
MSD01802 MARSDEN POINT
OAK18601 OAKLEIGH
WHG07501 WHANGAREI
KUR33601 KAURI

1. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

2. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

3. Summary of actions being taken to resolve event

Pipeline found to be deformed due to land slip and section isolated between MLVs at Mokau Compressor Station and Pukeruahe. Repair options being assessed by Vector – time to repair predicted to be between 2 and 5 days.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for curtailment and all additional demands that now require curtailment.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to curtail demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>



(h) The CCO will notify the TSOs by telephone of this notice.
Sent by the Critical Contingency Operator



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Notice Type CCO Critical

Notice Identifier 7158

Notice Name CCO - Exercise Initial - Situation Update

Published 25/02/2010 13:45

Begin Date & Time 25/02/2010 13:42

End Date & Time 02/03/2010 23:59

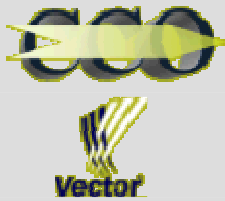
Notice Period 5

Required Response Indicator Action Required

Detail 25/02/2010

Vector have advised that the section of Maui pipeline damaged by the landslip will have to be cut out and replaced. Current prediction is that repair will be completed by 02 March 2010. Once line pack has been restored to acceptable levels the demand restoration process will commence.
Sent by the Critical Contingency Operator





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Monday, 15 March
2010 11:52 a.m.

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View Notice Details

Notice Type CCO Critical

Notice Identifier 7163

Notice Name CCO - Exercise Initial - Restore Demand

Published 25/02/2010 14:59

Begin Date & Time 25/02/2010 14:59

End Date & Time 02/03/2010 23:59

Notice Period 5

Required Response Indicator Action Required

Detail 25/02/2010
EXERCISE INITIAL

Exercise Time/Date: 14:00 02 Mar 2010

Direction to Restore Curtailed Demand

This Notice is issued to notify you that the CCO has given direction to restore curtailed demand under Regulation 53 (1) (e) (i)/(ii) of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Details regarding order for restoration of curtailed demand

No additional instructions.

2. Restoration of curtailed demand now directed

Band 1b Large Consumers; Demand Curtailment Location & Direction
NPS00530 NEW PLYMOUTH POWER STATION
BER00653 BERTRAND RD (Methanex)
NGA00669 NGATIMARU RD (DELIVERY) (Methanex)
HPS02993 HUNTLY POWER STATION Restore to 11 SCMS by 17:00 02/03/10
OTB00301 OTAHUHU B POWER STATION Remain offline
SDN00101 SOUTHDOWN POWER STATION
TRC02003 TE RAPA COGENERATION PLANT
BAL08201 BALLANCE AMMONIA-UREA (Fuel)
BAL09626 BALLANCE AMMONIA-UREA (Process)
TCC00201 TARANAKI COMBINED CYCLE (TCC)

Bands 2-6; Demand Curtailment Direction
Band 2
Band 3
Band 4
Band 5



Band 6

Bands 2-6; Location of Consumers to be curtailed

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

4. Summary of actions being taken to resolve event

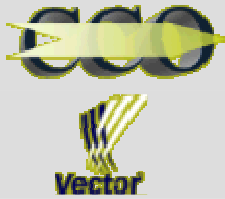
Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack is being restored and the demand restoration process is now in progress.

Due to a request by Transpower to restore gas for power generation, the TSO has elected to restore demand in an alternative order.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for restoration and any additional demands that can now be restored.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to restore curtailed demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.
Sent by the Critical Contingency Operator





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View Notice Details

Notice Type CCO Critical

Notice Identifier 7166

Notice Name CCO - Exercise Initial - Demand Restoration 2

Published 25/02/2010 15:30

Begin Date & Time 25/02/2010 15:28

End Date & Time 02/03/2010 23:59

Notice Period 5

Required Response Indicator Action Required

Detail 25/02/2010
EXERCISE INITIAL

Exercise Time/Date: 18:00 02 Mar 2010

Direction to Restore Curtailed Demand

This Notice is issued to notify you that the CCO has given direction to restore curtailed demand under Regulation 53 (1) (e) (i)/(ii) of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Details regarding order for restoration of curtailed demand

No additional instructions.

2. Restoration of curtailed demand now directed

Band 1b Large Consumers; Demand Restoration Location & Direction
NPS00530 NEW PLYMOUTH POWER STATION
BER00653 BERTRAND RD (Methanex)
NGA00669 NGATIMARU RD (DELIVERY) (Methanex)
HPS02993 HUNTLY POWER STATION Remain at 11 SCMS
OTB00301 OTAHUHU B POWER STATION Remain offline
SDN00101 SOUTHDOWN POWER STATION
TRC02003 TE RAPA COGENERATION PLANT
BAL08201 BALLANCE AMMONIA-UREA (Fuel)
BAL09626 BALLANCE AMMONIA-UREA (Process)
TCC00201 TARANAKI COMBINED CYCLE (TCC)

Bands 2-6; Demand Restoration Direction

Band 2 Restore all demand
Band 3 Restore all demand
Band 4 Restore all demand
Band 5
Band 6



Bands 2-6; Location of Consumers to be Restored

HTK08301 HAMILTON TE KOWHAI
HTV11301 HAMILTON TEMPLEVIEW
HRU16101 HOROTIU
CAM17201 CAMBRIDGE
MTG17301 MATANGI
KIW34201 KIWITAHU (PEROXIDE)
KIW34202 KIWITAHU
MRV16301 MORRINSVILLE DAIRY FACTORY
MRV16302 MORRINSVILLE
TAT16401 TATUA
WTA16501 WAITOA
TUK06501 TUAKAU
HAR11801 HARRISVILLE
PAP06603 PAPA KURA
PAP06610 PAPA KURA
PUK04201 PUKEKOHE
KIG16801 KINGSEAT
GLB03401 GLENBROOK
RAM15201 RAMARAMA
DRU15101 DRURY
DRU15102 DRURY NGC
HUN15301 HUNUA
HUN15302 HUNUA (NOVA)
ALF15501 ALFRISTON
FLB15601 FLAT BUSH
WST03610 WESTFIELD
BMC17901 BRUCE MCLAREN
HEN74101 HENDERSON
WTK33901 WAITOKI
WTK33902 WAITOKI B
WRK18901 WARKWORTH
WEL18301 WELLSFORD
MUT19001 MAUNGATUROTO
MSD01801 MARSDEN POINT DIRECT
MSD01802 MARSDEN POINT
OAK18601 OAKLEIGH
WHG07501 WHANGAREI
KUR33601 KAURI

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

4. Summary of actions being taken to resolve event

Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack is being restored and the demand restoration process is now in progress.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for restoration and any additional demands that can now be restored.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to restore curtailed demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.



(e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

Sent by the Critical Contingency Operator



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View Notice Details

Notice Type	CCO Critical
Notice Identifier	7169
Notice Name	CCO - Exercise Initial - Restore Demand 3
Published	25/02/2010 16:03
Begin Date & Time	25/02/2010 16:02
End Date & Time	02/03/2010 23:59
Notice Period	5
Required Response Indicator	Action Required
Detail	<p>25/02/2010 EXERCISE INITIAL</p> <p>Exercise Time/Date: 22:00 02 Mar 2010</p> <p>Direction to Restore Curtailed Demand</p> <p>This Notice is issued to notify you that the CCO has given direction to restore curtailed demand under Regulation 53 (1) (e) (i)/(ii) of the Gas Governance (Critical Contingency Management) Regulations 2008.</p> <p>1. Details regarding order for restoration of curtailed demand</p> <p>No additional instructions.</p> <p>2. Restoration of curtailed demand now directed</p> <p>Band 1b Large Consumers; Demand Restoration Location & Direction NPS00530 NEW PLYMOUTH POWER STATION BER00653 BERTRAND RD (Methanex) NGA00669 NGATIMARU RD (DELIVERY) (Methanex) HPS02993 HUNTLY POWER STATION Restore all demand OTB00301 OTAHUHU B POWER STATION SDN00101 SOUTHDOWN POWER STATION Restore all demand TRC02003 TE RAPA COGENERATION PLANT Restore all demand BAL08201 BALLANCE AMMONIA-UREA (Fuel) BAL09626 BALLANCE AMMONIA-UREA (Process) TCC00201 TARANAKI COMBINED CYCLE (TCC)</p> <p>Bands 2-6; Demand Restoration Direction Band 2 Restore all demand Band 3 Restore all demand Band 4 Restore all demand Band 5 Band 6</p> <p>Bands 2-6; Location of Consumers to be Restored</p> <p>HTK08301 HAMILTON TE KOWHAI HTV11301 HAMILTON TEMPLEVIEW HRU16101 HOROTIU</p>



CAM17201 CAMBRIDGE
MTG17301 MATANGI
KIW34201 KIWITAHU (PEROXIDE)
KIW34202 KIWITAHU
MRV16301 MORRINSVILLE DAIRY FACTORY
MRV16302 MORRINSVILLE
TAT16401 TATUA
WTA16501 WAITOA
TUK06501 TUAKAU
HAR11801 HARRISVILLE
PAP06603 PAPA KURA
PAP06610 PAPA KURA
PUK04201 PUKEKOHE
KIG16801 KINGSEAT
GLB03401 GLENBROOK
RAM15201 RAMARAMA
DRU15101 DRURY
DRU15102 DRURY NGC
HUN15301 HUNUA
HUN15302 HUNUA (NOVA)
ALF15501 ALFRISTON
FLB15601 FLAT BUSH
WST03610 WESTFIELD
BMC17901 BRUCE MCLAREN
HEN74101 HENDERSON
WTK33901 WAITOKI
WTK33902 WAITOKI B
WRK18901 WARKWORTH
WEL18301 WELLSFORD
MUT19001 MAUNGATUROTO
MSD01801 MARSDEN POINT DIRECT
MSD01802 MARSDEN POINT
OAK18601 OAKLEIGH
WHG07501 WHANGAREI
KUR33601 KAURI

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

4. Summary of actions being taken to resolve event

Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack is being restored and the demand restoration process is now in progress.

Notes:

(a) This notice supersedes all previous notices. It includes all demand previously directed for restoration and any additional demands that can now be restored.

(b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.

(c) Retailers and Large Consumers must follow directions given by TSOs to restore curtailed demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).

(d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.

(e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

Sent by the Critical Contingency Operator





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View Notice Details

Notice Type	CCO Non-Critical
Notice Identifier	7172
Notice Name	CCO - Exercise Initial - Termination of Critical Contingency
Published	25/02/2010 16:22
Begin Date & Time	25/02/2010 16:16
End Date & Time	02/03/2010 23:59
Notice Period	5
Required Response Indicator	Action Required
Detail	<p>25/02/2010 EXERCISE INITIAL</p> <p>Exercise Time/Date: 23:00 02 Mar 2010</p> <p>Termination of Critical Contingency</p> <p>This Notice is issued to notify you that the CCO has determined that the Critical Contingency has been terminated under Regulation 60 of the Gas Governance (Critical Contingency Management) Regulations 2008.</p> <p>1. Time and date contingency terminated</p> <p>23:00 02 March 2010</p> <p>2. Event that caused critical contingency</p> <p>Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station.</p> <p>3. Areas of transmission system affected</p> <p>Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.</p> <p>4. Details of event resolution</p> <p>Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack has now been restored and the system is now capable of supplying gas at the levels immediately prior to the event.</p>



Notes:

- (a) All directions issued by the CCO pursuant to the termination of the Critical Contingency must be complied with.
- (b) TSOs must issue notices regarding the termination of the Critical Contingency in accordance with Regulation 61.
- (c) The communications described in the CCO Communication Plan and TSOs CCMPs are deactivated at the time and date that the critical contingency is terminated.
- (d) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice. It is not required to reply to or acknowledge this email notice.
- (e) This notice will be communicated by a truncated SMS message.
- (f) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (g) The CCO will notify the TSOs by telephone of this notice.
Sent by the Critical Contingency Operator





Appendix 1.3 CCO Email Notices

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 8:01 a.m.
To: [see appendix 1.5]
Subject: CCO Exercise Initial - exercise has now commenced

EXERCISE INITIAL

Please note that the exercise has now commenced



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 9:24 a.m.
To: [see appendix 1.5]
Subject: Exercise Initial Declaration Critical Contingency.doc

EXERCISE INITIAL

Exercise Time/Date: 17:30 25 Feb 2010

Declaration of Critical Contingency

This Notice is issued to inform you that the CCO has declared a critical contingency under **Regulation 49** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Event causing Critical Contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

2. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral. Vector BOP pipeline.

3. Summary of actions being taken to resolve event

Vector personnel and equipment on site and repair options being assessed.

4. Guidance on Critical Contingency being classed as Regional Critical Contingency

This event is a Regional Critical Contingency.

Notes:

- (a) All directions issued by the CCO pursuant to the declaration of the critical contingency must be complied with.
- (b) Demand curtailment is not required at this stage and directions from the CCO will follow if required.
- (c) Any previous notice of a potential Critical Contingency by the CCO is now terminated.
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs are now activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 10:31 a.m.
To: [see appendix 1.5]
Subject: Exercise Initial Implement Curtailment Critical Contingency.doc

EXERCISE INITIAL

Exercise Time/Date: 20:00 25 Feb 2010

Direction to Implement Demand Curtailment

This Notice is issued to inform you that the CCO has given direction to implement curtail demand under **Regulation 53 (1) (d) (i)** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Curtailments to be implemented

Band 1b Large Consumers; Demand Curtailment Location & Direction

NPS00530	NEW PLYMOUTH POWER STATION	
BER00653	BERTRAND RD (Methanex)	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	
HPS02993	HUNTLY POWER STATION	Curtail to zero SCMS by 21:00 25/02/10
OTB00301	OTAHUHU B POWER STATION	Remain offline
SDN00101	SOUTHDOWN POWER STATION	Curtail to zero SCMS by 21:00 25/02/10
TRC02003	TE RAPA COGENERATION PLANT	
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	
BAL09626	BALLANCE AMMONIA-UREA (Process)	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	

Bands 2-6; Demand Curtailment Direction

Band 2	
Band 3	
Band 4	
Band 5	
Band 6	

Bands 2-6; Location of Consumers to be curtailed

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected



Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral. Vector BOP pipeline.

4. Summary of actions being taken to resolve event

Pipeline found to be deformed due to land slip and section isolated between MLVs at Mokau Compressor Station and Pukeruahe. Repair options being assessed by Vector – time to repair predicted to be between 2 and 5 days.

Notes:

- (a) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (b) Retailers and Large Consumers must follow directions given by TSOs to curtail demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (c) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (d) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (e) This notice will be communicated by a truncated SMS message.
- (f) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (g) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 10:45 a.m.
To: [see appendix 1.5]
Subject: CCO-011e Revise Curtailment Critical Contingency.doc

EXERCISE INITIAL

Exercise Time/Date: 20:10 25 Feb 2010

Direction to Revise Demand Curtailment

This Notice is issued to inform you that the CCO has given direction to revise demand curtailment under **Regulation 53 (1) (d) (ii)** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Curtailments to be implemented

Band 1b Large Consumers; Demand Curtailment Location & Direction

NPS00530	NEW PLYMOUTH POWER STATION	
BER00653	BERTRAND RD (Methanex)	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	
HPS02993	HUNTLY POWER STATION	Curtail to zero SCMS by 21:00 25/02/10
OTB00301	OTAHUHU B POWER STATION	
SDN00101	SOUTHDOWN POWER STATION	Curtail to zero SCMS by 21:00 25/02/10
TRC02003	TE RAPA COGENERATION PLANT	Curtail to zero SCMS by 21:10 25/02/10
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	
BAL09626	BALLANCE AMMONIA-UREA (Process)	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	

Bands 2-6; Demand Curtailment Direction

Band 2	
Band 3	
Band 4	
Band 5	
Band 6	

Bands 2-6; Location of Consumers to be curtailed

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected



Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral. Vector BOP pipeline.

4. Summary of actions being taken to resolve event

Pipeline found to be deformed due to land slip and section isolated between MLVs at Mokau Compressor Station and Pukeruahe.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for curtailment and all additional demands that now require curtailment.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to curtail demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 11:58 a.m.
To: [see appendix 1.5]
Subject: Exercise Initial Revise Curtailment Critical Contingency.doc

EXERCISE INITIAL

Exercise Time/Date: 23:00 25 Feb 2010

Direction to Revise Demand Curtailment

This Notice is issued to inform you that the CCO has given direction to revise demand curtailment under **Regulation 53 (1) (d) (ii)** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Curtailments to be implemented

Band 1b Large Consumers; Demand Curtailment Location & Direction

NPS00530	NEW PLYMOUTH POWER STATION	
BER00653	BERTRAND RD (Methanex)	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	
HPS02993	HUNTLY POWER STATION	Curtail to zero SCMS by 21:00 25/02/10
OTB00301	OTAHUHU B POWER STATION	Remain offline
SDN00101	SOUTHDOWN POWER STATION	Curtail to zero SCMS by 21:00 25/02/10
TRC02003	TE RAPA COGENERATION PLANT	Curtail to zero SCMS by 21:10 25/02/10
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	
BAL09626	BALLANCE AMMONIA-UREA (Process)	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	

Bands 2-6; Demand Curtailment Direction

Band 2	Curtail all demand
Band 3	Curtail all demand
Band 4	Curtail all demand
Band 5	
Band 6	

Bands 2-6; Location of Consumers to be curtailed

HTK08301	HAMILTON TE KOWHAI
HTV11301	HAMILTON TEMPLEVIEW
HRU16101	HOROTIU
CAM17201	CAMBRIDGE
MTG17301	MATANGI
KIW34201	KIWITAHU (PEROXIDE)
KIW34202	KIWITAHU
MRV16301	MORRINSVILLE DAIRY FACTORY
MRV16302	MORRINSVILLE
TAT16401	TATUA
WTA16501	WAITOA
TUK06501	TUAKAU
HAR11801	HARRISVILLE
PAP06603	PAPAKURA
PAP06610	PAPAKURA



PUK04201	PUKEKOHE
KIG16801	KINGSEAT
GLB03401	GLENBROOK
RAM15201	RAMARAMA
DRU15101	DRURY
DRU15102	DRURY NGC
HUN15301	HUNUA
HUN15302	HUNUA (NOVA)
ALF15501	ALFRISTON
FLB15601	FLAT BUSH
WST03610	WESTFIELD
BMC17901	BRUCE MCLAREN
HEN74101	HENDERSON
WTK33901	WAITOKI
WTK33902	WAITOKI B
WRK18901	WARKWORTH
WEL18301	WELLSFORD
MUT19001	MAUNGATUROTO
MSD01801	MARSDEN POINT DIRECT
MSD01802	MARSDEN POINT
OAK18601	OAKLEIGH
WHG07501	WHANGAREI
KUR33601	KAURI

2. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

3. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

4. Summary of actions being taken to resolve event

Pipeline found to be deformed due to land slip and section isolated between MLVs at Mokau Compressor Station and Pukeruahe. Repair options being assessed by Vector – time to repair predicted to be between 2 and 5 days.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for curtailment and all additional demands that now require curtailment.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to curtail demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time



stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator

Sent: Thursday, 25 February 2010 1:39 p.m.

To: critical.contingency@gasindustry.co.nz; jamie.gray@parliament.govt.nz;
paul.mitchell@med.govt.nz; nathan.bittle@med.govt.nz; david.buckrell@med.govt.nz;
mcdemdutymgr@dia.govt.nz

Subject: Exercise Initial - Continuing Critical Contingency

Exercise Initial

Exercise time : 17:00 28 Feb

In accordance with R59(1) this is notification that the critical contingency has not been terminated within three days of declaration.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 3:01 p.m.
To: [see appendix 1.5]
Subject: Exercise Initial - Restore Demand Critical Contingency.doc

EXERCISE INITIAL

Exercise Time/Date: 14:00 02 Mar 2010

Direction to Restore Curtailed Demand

This Notice is issued to notify you that the CCO has given direction to restore curtailed demand under **Regulation 53 (1) (e) (i)/(ii)** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Details regarding order for restoration of curtailed demand

No additional instructions.

2. Restoration of curtailed demand now directed

Band 1b Large Consumers; Demand Curtailment Location & Direction

NPS00530	NEW PLYMOUTH POWER STATION	
BER00653	BERTRAND RD (Methanex)	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	
HPS02993	HUNTLY POWER STATION	Restore to 11 SCMS by 17:00 02/03/10
OTB00301	OTAHUHU B POWER STATION	Remain offline
SDN00101	SOUTHDOWN POWER STATION	
TRC02003	TE RAPA COGENERATION PLANT	
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	
BAL09626	BALLANCE AMMONIA-UREA (Process)	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	

Bands 2-6; Demand Curtailment Direction

Band 2	
Band 3	
Band 4	
Band 5	
Band 6	

Bands 2-6; Location of Consumers to be curtailed

3. Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

4. Areas of transmission system affected



Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

5. Summary of actions being taken to resolve event

Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack is being restored and the demand restoration process is now in progress.

Due to a request by Transpower to restore gas for power generation, the TSO has elected to restore demand in an alternative order.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for restoration and any additional demands that can now be restored.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to restore curtailed demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.
- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 3:33 p.m.
To: [see appendix 1.5]
Subject: Exercise Initial - Restore Demand 2 Critical Contingency.doc

EXERCISE INITIAL

Exercise Time/Date: 18:00 02 Mar 2010

Direction to Restore Curtailed Demand

This Notice is issued to notify you that the CCO has given direction to restore curtailed demand under **Regulation 53 (1) (e) (i)/(ii)** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Details regarding order for restoration of curtailed demand

No additional instructions.

2. Restoration of curtailed demand now directed

Band 1b Large Consumers; Demand Restoration Location & Direction

NPS00530	NEW PLYMOUTH POWER STATION	
BER00653	BERTRAND RD (Methanex)	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	
HPS02993	HUNTLY POWER STATION	Remain at 11 SCMS
OTB00301	OTAHUHU B POWER STATION	Remain offline
SDN00101	SOUTHDOWN POWER STATION	
TRC02003	TE RAPA COGENERATION PLANT	
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	
BAL09626	BALLANCE AMMONIA-UREA (Process)	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	

Bands 2-6; Demand Restoration Direction

Band 2	Restore all demand
Band 3	Restore all demand
Band 4	Restore all demand
Band 5	
Band 6	

Bands 2-6; Location of Consumers to be Restored

HTK08301	HAMILTON TE KOWHAI
HTV11301	HAMILTON TEMPLEVIEW
HRU16101	HOROTIU
CAM17201	CAMBRIDGE
MTG17301	MATANGI
KIW34201	KIWITAHU (PEROXIDE)
KIW34202	KIWITAHU
MRV16301	MORRINSVILLE DAIRY FACTORY
MRV16302	MORRINSVILLE
TAT16401	TATUA
WTA16501	WAITOA
TUK06501	TUAKAU
HAR11801	HARRISVILLE
PAP06603	PAPAKURA



PAP06610	PAPAKURA
PUK04201	PUKEKOHE
KIG16801	KINGSEAT
GLB03401	GLENBROOK
RAM15201	RAMARAMA
DRU15101	DRURY
DRU15102	DRURY NGC
HUN15301	HUNUA
HUN15302	HUNUA (NOVA)
ALF15501	ALFRISTON
FLB15601	FLAT BUSH
WST03610	WESTFIELD
BMC17901	BRUCE MCLAREN
HEN74101	HENDERSON
WTK33901	WAITOKI
WTK33902	WAITOKI B
WRK18901	WARKWORTH
WEL18301	WELLSFORD
MUT19001	MAUNGATUROTO
MSD01801	MARSDEN POINT DIRECT
MSD01802	MARSDEN POINT
OAK18601	OAKLEIGH
WHG07501	WHANGAREI
KUR33601	KAURI

3.Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

4.Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

5.Summary of actions being taken to resolve event

Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack is being restored and the demand restoration process is now in progress.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for restoration and any additional demands that can now be restored.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to restore curtailed demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time



stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 4:06 p.m.
To: [see appendix 1.5]
Subject: Exercise Initial - Restore Demand 3

EXERCISE INITIAL

Exercise Time/Date: 22:00 02 Mar 2010

Direction to Restore Curtailed Demand

This Notice is issued to notify you that the CCO has given direction to restore curtailed demand under **Regulation 53 (1) (e) (i)/(ii)** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Details regarding order for restoration of curtailed demand

No additional instructions.

2. Restoration of curtailed demand now directed

Band 1b Large Consumers; Demand Restoration Location & Direction

NPS00530	NEW PLYMOUTH POWER STATION	
BER00653	BERTRAND RD (Methanex)	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	
HPS02993	HUNTLY POWER STATION	Restore all demand
OTB00301	OTAHUHU B POWER STATION	
SDN00101	SOUTHDOWN POWER STATION	Restore all demand
TRC02003	TE RAPA COGENERATION PLANT	Restore all demand
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	
BAL09626	BALLANCE AMMONIA-UREA (Process)	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	

Bands 2-6; Demand Restoration Direction

Band 2	Restore all demand
Band 3	Restore all demand
Band 4	Restore all demand
Band 5	
Band 6	

Bands 2-6; Location of Consumers to be Restored

HTK08301	HAMILTON TE KOWHAI
HTV11301	HAMILTON TEMPLEVIEW
HRU16101	HOROTIU
CAM17201	CAMBRIDGE
MTG17301	MATANGI
KIW34201	KIWITAHU (PEROXIDE)
KIW34202	KIWITAHU
MRV16301	MORRINSVILLE DAIRY FACTORY
MRV16302	MORRINSVILLE
TAT16401	TATUA
WTA16501	WAITOA
TUK06501	TUAKAU
HAR11801	HARRISVILLE
PAP06603	PAPAKURA



PAP06610	PAPAKURA
PUK04201	PUKEKOHE
KIG16801	KINGSEAT
GLB03401	GLENBROOK
RAM15201	RAMARAMA
DRU15101	DRURY
DRU15102	DRURY NGC
HUN15301	HUNUA
HUN15302	HUNUA (NOVA)
ALF15501	ALFRISTON
FLB15601	FLAT BUSH
WST03610	WESTFIELD
BMC17901	BRUCE MCLAREN
HEN74101	HENDERSON
WTK33901	WAITOKI
WTK33902	WAITOKI B
WRK18901	WARKWORTH
WEL18301	WELLSFORD
MUT19001	MAUNGATUROTO
MSD01801	MARSDEN POINT DIRECT
MSD01802	MARSDEN POINT
OAK18601	OAKLEIGH
WHG07501	WHANGAREI
KUR33601	KAURI

3.Event causing critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station. Pipeline damage investigated and line found to be buckled. Arrangements now being made to isolate the affected section of pipeline to investigate further and consider repair options.

4.Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

5.Summary of actions being taken to resolve event

Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack is being restored and the demand restoration process is now in progress.

Notes:

- (a) This notice supersedes all previous notices. It includes all demand previously directed for restoration and any additional demands that can now be restored.
- (b) All directions issued by the CCO pursuant to the declaration of the Critical Contingency must be complied with.
- (c) Retailers and Large Consumers must follow directions given by TSOs to restore curtailed demand in accordance with Regulation 55(1) and provide TSOs with regular updates of compliance in accordance with Regulation 55(2).
- (d) The communications described in the CCO Communication Plan and TSOs CCMPs continue to be activated.
- (e) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time



stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice.

- (f) This notice will be communicated by a truncated SMS message.
- (g) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (h) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 4:23 p.m.
To: [see appendix 1.5]
Subject: Exercise Initial - Termination Of Critical Contingency

EXERCISE INITIAL

Exercise Time/Date: 23:00 02 Mar 2010

Termination of Critical Contingency

This Notice is issued to notify you that the CCO has determined that the Critical Contingency has been terminated under **Regulation 60** of the Gas Governance (Critical Contingency Management) Regulations 2008.

1. Time and date contingency terminated

23:00 02 March 2010

2. Event that caused critical contingency

Landslip over Maui pipeline at Tongapurutu ~20km south of Mokau Compressor Station.

3. Areas of transmission system affected

Maui pipeline north of Mokau compressor station. Vector northern pipeline and Vector Morrinsville Lateral.

4. Details of event resolution

Vector has advised that the section of Maui pipeline damaged by the landslip has been cut out and replaced. Line pack has now been restored and the system is now capable of supplying gas at the levels immediately prior to the event.

Notes:

- (a) All directions issued by the CCO pursuant to the termination of the Critical Contingency must be complied with.
- (b) TSOs must issue notices regarding the termination of the Critical Contingency in accordance with **Regulation 61**.
- (c) The communications described in the CCO Communication Plan and TSOs CCMPs are deactivated at the time and date that the critical contingency is terminated.
- (d) The communication of this notice by email is recorded on the CCO computer system and the notice is considered received by this record. The date and time of this notice is that time stamped by the CCO computer system. It is not required to reply to or acknowledge this email notice. It is not required to reply to or acknowledge this email notice.
- (e) This notice will be communicated by a truncated SMS message.
- (f) This notice will be published on the CCO internet site in the public domain. Refer to <https://www.oatis.co.nz>
- (g) The CCO will notify the TSOs by telephone of this notice.



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 4:42 p.m.
To: [see appendix 1.5]
Subject: Exercise Termination Notification.doc

EXERCISE INITIAL

Please note that the exercise has now terminated

Thank you for participating



Appendix 1.4 – CCO Text Alerts

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 8:01 a.m.
To: [see appendix 1.6]
Subject:

CCO Exercise Initial has now commenced

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 9:27 a.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7139 Declaration of Critical Contingency landslip on Maui pipeline in north Taranaki Pipeline to be isolated Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 10:34 a.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice 7143 20:00 25 Feb Implement Demand Curtailment 1b Huntly and Southdown PS by 21:00 Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 10:47 a.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7146 20:10 25 Feb Implement Demand Curtailment 1b Huntly PS Southdown PS Te Rapa Dairy by 21:00 Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 11:59 a.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7150 23:00 25 Feb Revise Demand Curtailment in bands 2 3 and 4 in North and Morrinsville systems Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 1:42 p.m.
To: CDEM-prior MINISTRY of (0211756900@txtmail.co.nz); CDEM-prior MINISTRY of (0274472111@txtmail.co.nz); Org - Gas Industry Company (0275405065@txtmail.co.nz); Org - Gas Industry Company (0210536767@txtmail.co.nz); Org - Minister for Economic Development (0212282611@txtmail.co.nz); Org - Minister for Economic Development (0276838993@txtmail.co.nz); Org - Ministry for Economic Development 1 (0212673995@txtmail.co.nz); Org - Ministry for Economic Development 2 (0272278072@txtmail.co.nz); Org - Ministry for Economic Development 3 (0211059329@txtmail.co.nz)
Subject:

CCO Exercise Initial 17:00 28 Feb In accordance with R59(1) notification that the critical contingency has not been terminated within three days of declaration



From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 3:02 p.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7163 Restore Demand at Huntly PS to 11SCMS by 17:00 Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 3:37 p.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7166 18:00 02 Mar Restore Demand to bands 2, 3 and 4 and Huntly PS remain at 11SCMS Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 4:07 p.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7169 22:00 02 Mar Restore Demand to all consumers Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 4:23 p.m.
To: [see appendix 1.6]
Subject:

Exercise Initial CCO Notice7172 23:00 02 Mar Critical Contingency was terminated at 23:00 02 Mar Refer to www.oatis.co.nz

From: Critical ContingencyOperator
Sent: Thursday, 25 February 2010 4:45 p.m.
To: [see appendix 1.6]
Subject:

Please note that the Exercise Initial has now terminated. Thank you for participating.



Appendix 2 - Summary Of Retailer and Large Consumer Compliance Updates

Party	Compliance Received	Updates	Comments
Huntly Power Station	MDL received compliance update by email at 14:01 in response to MDL OATIS notice #7144 issued at 10:36. Power Station fully shut down at 21:00 25 Feb (exercise time).		Vector compliance form used rather than MDL form. OATIS ID# referred to on compliance notice was CCO notice #7146. TSO curtailment notice for Huntly was #7144 for curtailment by 21:00 25 Feb (exercise time)
Otahuhu Power Station	Shut down for maintenance at time of exercise – no updates required or received by Vector.		
Southdown Power Station	No compliance notices received by Vector.		
Te Rapa Dairy	No compliance notices received by Vector.		
Genesis	Vector received compliance notice by email at 13:44. No OATIS ID# stated. Vector received compliance notice by email at 14:39. No OATIS ID# stated. Vector received compliance notice by email at 15:04. No OATIS ID# stated. Vector received email at 15:49 advising that all customers had been contacted and advised that gas flow can now be restored.		Information on form not completed fully. Band 5 consumers indicated to be curtailed – notices did not request band 5 curtailment.
Contact	Vector received compliance update by email at 13:07 in response to Vector notice #7152.		NZRC curtailed to zero flow at 23:10 (exercise time). No other updates received.
Ongas	Vector received compliance update by email at 13:31 in response to Vector notice #7152 sent at 12:02. Vector received compliance update by email at 14:09 as update response to Vector notice #7152. Vector received compliance update by email at 15:13 as update response to Vector notice #7152.		
Nova	No compliance notices received by Vector.		CCO received email at 12:34 stating that all affected consumers had been contacted with reference to CCO notice #7150. CCO received email at 15:54 advising that affected consumers had been contacted and advised that the restoration of supply is underway and restriction to consumption has been lifted with reference to CCO notice #7166.



Nova Industrial	No compliance notices received by Vector.	
BOP Energy	No compliance notices received by Vector.	BOP Energy has no consumers in bands 0-4 and hence was not affected by the exercise.
Auckland Gas Company	No compliance notices received by Vector.	
Energy Direct	No compliance notices received by Vector.	Due to exercise information being sent to an incorrect email address it was not possible for Energy direct to participate fully. However information about affected consumers was received from Energy Direct.
Greymouth	Vector received email at 16:09 stating demand already restored to all consumers. Vector received compliance update by email at 16:11 in response to all notices.	Earlier compliance notices were sent to the Vector Commercial Operator in error.
E-gas	No compliance notices received by Vector.	CCO received email at 14:22 giving list of consumers affected by Vector notice #7152 issued at 12:02. CCO received email at 15:37 stating affected consumers now being contacted to let them know they can resume using gas – reference to Vector notice #7167 issued at 15:36.
Mercury Energy	No compliance notices received by Vector.	Mercury Energy has no consumers in bands 0-4 and hence was not affected by the exercise.



Appendix 3 – CCO Exercise Event Log

Event Description	Exercise Initial – Interruption of the Maui pipeline due to a landslip causing the pipeline to be isolated for repairs over a five day period			
Event Location	Waikaroroa Bluffs near Tongaporutu. Section isolated between MLVs at Pukeruahe and Mokau CS.			
Time of Initial Call	Time Critical Contingency Declared	Time Critical Contingency Terminated	Duty Manager	Assistant CCO
08:40 (from Gas Control)	09:22 25 Feb (real time) 17:30 25 Feb (exercise time)	16:22 25 Feb (real time) 23:00 02 Mar (exercise time)	Steve Ilkovics	Julie Langford

TIME	PERSON	IN	OUT	ACTIVITY
08:01	CCO Duty Manager		X	Exercise commencement notice sent by email
08:01	CCO Duty Manager		X	Exercise commencement notice SMS text alert sent
08:40	Duty Gas Controller	X		Information provided about pipeline event:- Land owner reported land slip at Waikaroroa Bluffs Ground needs to be removed to establish if Maui pipeline affected TSO Duty Officer informed Nothing visible on site – no gas escape present Vector Technician dispatched to site to investigate further Access to the area may be difficult and heavy rain may be problem for vehicle access
08:50	CCO Duty Manager			Decision that no CCO actions required at this stage as gas still flowing to meet full required demand and no confirmation from TSO on the extent of any damage to the pipeline. Information based on landowner assessment only with no indication of pipeline damage.
08:58	Gas Control	X		Email notifying CCO of initial situation
08:55	CCO Duty Manager			Attended Gas Control to discuss situation with TSO Incident Controller. Requested download of SCADA data for input to demand modelling system.



TIME	PERSON	IN	OUT	ACTIVITY
09:03	TSO Incident Controller	X		Initial inspection of pipeline has indicated buckling but no gas escaping. Damaged section of pipeline will have to be isolated for safety reasons and to inspect more closely. It will take up to 1 hour to dispatch Technicians to the MLVs at Pukeruahe and Mokau CS to isolate 25km section. Isolation procedure being prepared.
09:05	CCO Duty Manager			Downloaded SCADA data input to demand modelling systems and initial indication is that Large Consumers at Huntly PS, Otahuhu PS, Southdown PS and Te Rapa Dairy will be affected and will require curtailing completely.
09:09	CCO Duty Manager		X	Phone call to Transpower security desk. Informing Duty Controller of the situation and indication that Huntly, Otahuhu and Southdown Power Stations will need to be curtailed. Otahuhu is out for maintenance and they will prepare to take down unit 5 at Huntly and Southdown. This situation could result in power shortage in Auckland area and rolling black outs.
09:12	CCO Duty Manager			Determination that a critical contingency has occurred based on reasonable expectation that a breach of the defined threshold at Rotowaro is unavoidable.
09:13	CCO Duty Manager		X	Informs Gas Control that critical contingency is to be declared
09:22	CCO Duty Manager		X	Posts critical contingency declaration notice on CCO OATIS – ID#7139. Guidance contained on this notice that the contingency was classed as Regional under r82 definition that part of the system has suffered total loss of supply and is isolated from any other significant sources of supply.
09:24	CCO Duty Manager		X	Critical contingency declaration notice sent by email
09:27	CCO Duty Manager		X	Critical contingency declaration notice SMS text alert sent
09:30	Transpower Duty Controller	X		Phone call received informing that declaration notice received and that they would now issue their formal notices to the market participants in accordance with their processes.
09:35	CCO Duty Manager			Detailed demand modelling confirms that survival time to 32barg at Rotowaro is approximately 6 hours at current demand levels. The complete curtailment of the Large Consumers at Huntly PS, Otahuhu PS, Southdown PS and Te Rapa Dairy will be affected and will require



TIME	PERSON	IN	OUT	ACTIVITY
				curtailing completely to increase survival time to approximately 25 hours.
09:40	Electricity Commission	X		Phoned to ask if this was a real situation. Explained that it was an exercise and that no actions were required
09:50	CCO Duty Manager			Face to face discussion about system survival times and curtailment plans with TSO Incident Controller. TSO unable to verify demand modelling calculations as no system modelling had been carried out by Gas Control.
10:11	CCO Duty Manager		X	Phone call to Duty Controller at Transpower Security Desk informing them that demand at Huntly PS and Southdown PS will have to be curtailed completely within the next hour. Explained that there were no alternative options to supply gas to these Large Consumers.
10:28	CCO Duty Manager		X	Demand Curtailment notice posted on CCO OATIS for Huntly and Southdown power stations to curtail to zero demand within 1 hour and for Otahuhu power station to remain off-line – ID#7143
10:31	CCO Duty Manager		X	Demand curtailment notice sent by email
10:34	CCO Duty Manager		X	Demand curtailment notice SMS text alert sent
10:44	CCO Duty Manager		X	Revised Demand Curtailment notice posted on CCO OATIS for Te Rapa Dairy to also be curtailed in addition to those curtailments on previous notice – ID#7146
10:45	CCO Duty Manager		X	Revised demand curtailment notice sent by email
10:47	CCO Duty Manager		X	Revised demand curtailment notice SMS text alert sent
11:30	CCO Duty Manager			Face to face discussion with TSO Incident Controller. TSO indicated that the section of buckled pipeline would have to be cut out and replaced with new pipe spools. This operation could take between 2 and 5 days depending on availability of machinery, manpower and materials and the ease of access to the site.
11:45	CCO Duty Manager			Further demand modelling completed. Indications are that Consumers in bands 2-4 in affected parts of system will need to be curtailed completely to provide survival time of approximately 115 hours to 32barg at Rotowaro.
11:50	CCO Duty Manager			Face to face discussions with TSO Incident Controller. TSO has not carried out own demand modelling so can not confirm CCO calculations. TSO



TIME	PERSON	IN	OUT	ACTIVITY
				confirmed that supply from the Maui pipeline into the BOP system had been reduced to zero and that the Vector 200line was now supplying normal full BOP demand.
11:54	CCO Duty Manager		X	Revised Demand Curtailment notice posted on CCO OATIS for all consumers in bands 2-4 at affected delivery points to be fully curtailed in addition to those curtailments on previous notices – ID#7150
11:58	CCO Duty Manager		X	Revised demand curtailment notice sent by email
11:59	CCO Duty Manager		X	Revised demand curtailment notice SMS text alert sent
13:39	CCO Duty Manager		X	Notice sent by email to the parties required under r59 that the critical contingency would not be terminated within three days of being declared.
13:42	CCO Duty Manager		X	SMS text alert sent to give r59 notice referred to above
13:45	CCO Duty Manager		X	Situation update posted on CCO OATIS giving latest details about the event – ID#7158
14:00	CCO Duty Manager		X	Phone call to Transpower Duty Controller to discuss situation and any special considerations for demand restoration order. Transpower informed that due to the total curtailment of Huntly and Southdown power stations with Otahuhu being out of commission it would be highly likely that rolling black outs would be occurring throughout the Auckland area. Transpower requested that priority be given to restoring gas supplies for power generation due to the long term nature of the interruption. Transpower advised that restoration of demand to half load at Huntly would be sufficient to meet shortfall in power generation.
14:12	CCO Duty Manager			Face to face discussion with TSO Duty Manager. Pipeline now repaired and isolated section re-commissioned. Discussion took place over the restoration order and it was agreed that gas supplies should be restored for power generation (Band 1b) prior to other Consumers (Bands 2-4) due to rolling power outages in the Auckland area.
14:59	CCO Duty Manager		X	Demand Restoration notice (1) posted on CCO OATIS for Huntly power station to restore demand to 11SCMS by 17:00 02 Mar 2010 – ID#7163
15:01	CCO Duty Manager		X	Demand restoration notice (1) sent by email
15:02	CCO Duty Manager		X	Demand restoration notice (1) SMS text alert sent



TIME	PERSON	IN	OUT	ACTIVITY
15:30	CCO Duty Manager		X	Demand Restoration notice (2) posted on CCO OATIS for Consumers in bands 2-4 to restore demand in addition to restoration directed in restoration notice (1) ID#7166
15:33	CCO Duty Manager		X	Demand restoration notice (2) sent by email
15:37	CCO Duty Manager		X	Demand restoration notice (2) SMS text alert sent
16:03	CCO Duty Manager		X	Demand Restoration notice (3) posted on CCO OATIS for all remaining curtailed demand to be restored in addition to restoration directed in restoration notices (1) and (2) ID#7169
16:06	CCO Duty Manager		X	Demand restoration notice (3) sent by email
16:07	CCO Duty Manager		X	Demand restoration notice (3) SMS text alert sent
16:15	CCO Duty Manager			Determination that the system is capable of supplying gas to all consumers at the level at which gas was supplied immediately before the event that gave rise to the critical contingency.
16:22	CCO Duty Manager		X	Critical contingency termination notice posted on CCO OATIS - ID#7172
16:23	CCO Duty Manager		X	Critical contingency termination notice sent by email
16:23	CCO Duty Manager		X	Critical contingency termination notice SMS text alert sent
16:42	CCO Duty Manager		X	Exercise termination notice sent by email
16:45	CCO Duty Manager		X	Exercise termination notice SMS text alert sent



Appendix 4 – Exercise Interject Plan

No	Exercise Interjects	Real Time	Exercise Time	Notes
1	Exercise commences	0800 25 Feb		Notice sent to all participants that exercise has commenced.
2	Heavy rain causes land slip over Maui Pipeline at Waikorora Bluffs near Tongaporutu. Slip reported by land owner. Vector personnel dispatched to site.	0815 25 Feb	0815 25 Feb	This is a known at-risk location and various works have been already been carried out to stabilise the bluff and to monitor pipeline strain levels remotely.
3	Vector personnel arrive on site to assess the situation. Assume access is available by conventional means over Gibbs land. No gas escape is evident but pipeline requires uncovering to inspect further. Excavation equipment dispatched to site to uncover pipeline at slip location.	0830 25 Feb	0930 25 Feb	Demand modelling complete isolation indicates that it would take approximately 10-12 hours at typical demand levels for line pack to deplete in the isolated section before the 3hours to 32barg threshold was breached at Rotowaro. This may vary depending on actual pipeline conditions and demands on day of exercise. Duty Officer may decide to isolate section of pipeline by closing MLVs at this point. If so go to step 5.
4	Initial inspection indicates that pipeline is buckled due to land slip forces but not ruptured.	0900 25 Feb	1700 25 Feb	Moving excavation equipment to site under heavy rain conditions is slow.
5	25km section isolated ASAP by closing main line valves at Pukeruahe (south) and Mokau CS (north). Section depressurised and vented to allow closer safe inspection etc.	0930 25 Feb	1800 25 Feb	CC would have to be declared straight away as breach unavoidable – classed as Regional under r82.
6	Decision made that section of buckled pipe to be cut out and replaced with two new pipe spools. Operation to take about 5 days (mobilisation of equipment, access to remote locations and preparing site for repair).	1000 25 Feb	2000 25 Feb	The parts of system affected are the MDL system north of Mokau and the Vector systems north of Rotowaro and Morrinsville Lateral (Hamilton, Cambridge etc also supplied via Rotowaro).
7	Band 1b Large Consumers at Huntly PS, Otahuhu B PS, Southdown PS and Te Rapa Dairy company to be curtailed.	1030 25 Feb	2100 25 Feb	Demand modelling indicates that curtailment of NZRC interruptible and band 1b Large Consumers at Huntly PS, Otahuhu B PS, Southdown PS and Te Rapa Dairy company would provide 40-50hours of line pack in the isolated section to supply the remaining demand. This may vary depending on



				actual pipeline conditions and demands on day of exercise.
8	Bands 2, 3 and 4 to be curtailed on the North and Morrinsville pipelines. Supply to BOP pipeline from Maui pipeline at Pokuru to be ceased.	1130 25 Feb	2300 25 Feb	Demand modelling further indicates that cessation of supply from the MDL Welded Point to the Vector system at Pokuru (Vector 200 line to supply full BOP lateral demand) combined with curtailing demand in bands 2-4 inc would provide ~120hours of line pack in the isolated section to supply the remaining bands 5, 6 and domestic demand in the North and Morrinsville systems. This would involve curtailment of demand for all Retailers apart from BOP Energy and Mercury Energy (mainly domestic retailers). ~400 consumers in bands 2-4 would be affected. This may vary depending on actual pipeline conditions and demands on day of exercise.
9	Pipeline repaired and isolated section re-commissioned. Demand restoration to commence.	1400 25 Feb	1200 02 Mar	Demand restoration may need to be carried out in different order to reinstate supply to power stations first if electricity supplies affected adversely.
10	Bands 2, 3 and 4 to be restored on the North and Morrisville Pipelines (if restoration order reverse of curtailment order).	1430 25 Feb	1400 02 Mar	Order of restoration will depend on simulated electricity supply situation.
11	Band 1b Large Consumers at Huntly PS, Otahuhu B PS, Southdown PS and Te Rapa Dairy company to be restored (if restoration order reverse of curtailment order).	1600 25 Feb	1800 02 Mar	
13	Critical Contingency terminated.	1630 25 Feb	2200 02 Mar	
14	Exercise Terminated	1700 25 Feb		Notice sent to all participants that exercise has terminated.