



**Critical Contingency Operator
2011 Test Exercise Report**

“EXERCISE TUARUA”

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Acknowledgement

The success of the exercise was directly attributable to the time and effort contributed by the participants during the planning, execution and feedback phases. These contributions are recognised and appreciated and have assisted in identifying valuable improvement opportunities.



1. Introduction

1.1 Regulatory Requirements

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

1.2 Exercise Scenario

The pipeline scenario used for the test exercise was that of the Vector 200mmNB 100pipeline just south of Foxton delivery point being struck by a directional drill being used by a contractor to install ducting for new fibre communications cables. The scenario involved the pipeline being punctured causing a large release of gas with no ignition or explosion. The de-pressurisation of the pipeline then caused adjacent main line valves to automatically close by activation the low pressure trips. This caused a complete isolation of the transmission system south of the downstream main line valve at Oturoa Road (approx 7km south of Foxton delivery point). This included the delivery points supplying the greater Wellington region. Supplies had to be maintained from remaining system linepack in the isolated section. The nature of the simulated pipeline damage was designed so that a relatively quick temporary repair could be carried out to enable the exercise to be completed during a single day. An interject script was developed jointly by the CCO and Vector to give a realistic feel and to provide full opportunity to test the various identified aspects of critical contingency processes and Vector emergency response plans.



1.3 Exercise Reporting

TSOs must provide a report to the CCO within 10 business days of completing a test exercise in accordance with r34(5). As MDL were not significantly involved in the exercise a report is not required from them.

Schedule 2 of the SPACCO, as amended by letter dated 22 October 2010, requires the CCO to prepare and provide a report to GIC within 10 business days of receiving test exercise reports from the TSOs as required by r34(5).

During the exercise an observer from the GIC was present in the CCO office. The CCO also placed observers in the CCO office and the TSOs gas operations control centre (GOCC). The observations and recommendations in this report are based on the following information.

- reports received from observers
- feedback and notes from exercise participants
- Vector exercise report
- joint CCO/TSO exercise debriefing meeting

All issues raised in the feedback and reports have been considered by the CCO and included in the report where considered significant. The report is structured to correspond with the test elements identified in the participants briefing document published prior to the exercise.

1.4 Vector Exercise Report

The Vector TSO exercise report provided to the CCO considers that the current Vector CCMP complies with r25 and when implemented during the test exercise it gave effect to the purpose of the Regulations. The report highlighted two areas where communications could be improved (see table below).

Ref#	Recommendation
1	TSO to consult with the CCO to allow amendment of the Vector CCMP, CCO Information Guide and CCO Communications Plan to enable CCO Notices to be automatically posted on Vector OATIS concurrently.
2	TSO to consult with the CCO to allow amendment of the Vector CCMP, CCO Information Guide and CCO Communications Plan to enable Demand Curtailment Compliance Updates to be sent to the TSO and CCO concurrently.



1.5 Executive Summary

The CCO considers that the regulations, the key documents (Information Guide, Communications Plans and Critical Contingency Management Plans), supporting processes and deployed communications worked well together, achieved the purpose of the regulations and demonstrated compliance.

Regulation 34(1)(a) – ***“That CCMPs comply with r25 and give effect to the purpose of the regulations.”*** The CCO considers that the Vector CCMP is compliant. However, this report identifies **five** recommendations where general improvements could be made to the Vector CCMP (see table below). It is noted that the MDL CCMP was not assessed against 34(1)(a) during the exercise due to the scenario only involving the Vector transmission system. Future test exercises will test the MDL CCMP.

Ref#	Recommendation
2.1(a)	Vector to review the suitability of all the existing defined threshold values and introduce any changes considered necessary.
2.2(a)	When Vector and MDL next amend their CCMPs reference should be made to NROs in section 2.2. This amendment would be considered to be immaterial in relation to r34(6)(b).
2.4(a)	Vector to remind Ballance AUP to enter their contact details in OATIS.
4.2(a)	Vector to consider ways of improving the processes employed to issue timely and accurate notices. [This issue is also referred to in recommendation 1 in the Vector TSO exercise report]
5.3(a)	Vector to review the content of compliance updates and how they should be provided and confirm these arrangements with retailers. This should include providing copies direct to the CCO. [this issue is also referred to in recommendation 2 in the Vector TSO exercise report]

Regulation 34(1)(b) – ***“That contact details included in CCMPs in accordance with r25 are current.”*** The CCO considers that the Vector and MDL CCMPs are compliant. However, this report identifies **one** recommendation where Vector could make an improvement (see table below).

Ref#	Recommendation
5.3(b)	Vector to develop a process to track and follow up on retailers compliance updates not provided by the required time during a critical contingency.

Regulation 34(1)(c) – ***“That the list of emergency contact details maintained by retailers in accordance with r43 is current.”*** The CCO considers that retailers lists are compliant. However, this report identifies **one** recommendation where a general improvement could be made (see table below).

Ref#	Recommendation
5.4(a)	GIC to consider the development of guidelines on the acceptable methods and systems for retailers to give urgent notices to consumers during a critical contingency.



The exercise also identified **four** recommendations where other general improvements could be made (see table below).

Ref#	Recommendation
3.3(a)	CCO to revise process to include issue of separate individually time stamped notices when issuing update notices.
4.3(a)	CCO to amend the information guide and communications plan to remove the guidance provided on the critical contingency declaration notice regarding the regional status of the critical contingency.
5.3(c)	GIC to consider the development of guidelines for retailers to issue regular consumer information updates to the CCO and possible future amendments of r39.
6(a)	Gas distributors and retailers to jointly develop formal processes and/or agreements for liaison during a critical contingency or events confined to the distribution network.



2. Pre Test Exercise Audit of TSO by CCO

The pre test exercise elements were audited on the day prior to the exercise by holding a pre-arranged interview with Graham Alexander (Vector gas operations manager & MDL technical operator). Item 2.4 was audited by inspecting the up to date contact lists contained within Vector and MDL OATIS systems.

Item	Element	Ref	Description
2.1	Thresholds 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 the 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 2.1(a) : Vector to review the suitability of all the existing defined threshold values and introduce any changes considered necessary.

All the defined threshold values for the Vector and MDL transmission systems are monitored within SCADA and are displayed on the GOCC operating screens. Pressure readings are taken at regular intervals, averaged and interpolated to calculate the time it would take to reach Pmin threshold values. It was noted that the algorithm used to carry out these calculation was modified in 2010 to give better dampening to pressure fluctuations and this would undergo further refinement if considered necessary. SCADA alarms have been set up to activate if threshold values are being approached or breached.

Item	Element	Ref	Description
2.2	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)	<p>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.</p>

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 threshold breach. This is not included in section 2.2 of either the Vector or MDL CCMPs. The CCO can access the NRO register held in GOCC to identify any NROs that may have the potential cause a critical contingency.

Recommendation 2.2(a) : When Vector and MDL next amend their CCMPs reference should be made to NROs in section 2.2. This amendment would be considered to be immaterial in relation to r34(6)(b).



Item	Element	Ref	Description
2.3	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
2.4	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 MDL contacts list – SMS & email contact details fields are held for each listed organisation. Listed organisations are responsible for maintaining their own contact details in OATIS. MDL posts a public OATIS notice at the start of each month reminding OATIS users to review and update their contact details. Vector contacts list - SMS & email contact details fields are held for each listed organisation except Ballance AUP. Listed organisations are responsible for maintaining their own contact details in OATIS. Vector posts a public OATIS notice at the start of each month reminding OATIS users to review and update their contact details. Recommendation 2.4(a) : Vector to remind Ballance AUP to enter their contact details in OATIS. Phone numbers for the 24/7 direct contact with control rooms at large consumers are maintained on a list in gas operations control. This list was found to be complete and a work order is raised on a regular basis to check validity.			



3. CCO Test Exercise Elements

Item	Element	Ref	Description
3.1	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 08:35 the CCO duty manager received a call from the duty gas operations controller giving information about the scenario – *"Large gas release occurred at about 07:45 at Foxtton Beach Road. Fire service and police in attendance. Drilling operation by contractor was in progress close to gas release. Possible major issue affecting gas supplies south of this point. No main line valves known to be closed. Vector technician dispatched to site to investigate further."*

At 08:40 the TSO duty manager declared an emergency and become the emergency controller (EC).

At 08:45 the CCO and the EC met to discuss the situation. The CCO was advised by the EC that *"Pressure at the inlet to Waitangirua gate station is just above 40 barg and reducing. It is estimated that it will take about two hours to reach the threshold value of 37 barg. Technician on way to site with ETA of 45 minutes. Damage will be assessed and repair options evaluated."* The threshold values defined in the Vector CCMP at the Waitangirua gate station are 10 hours to 37 barg.

At 08:55 the CCO made a determination that there was a critical contingency and advised the EC that a critical contingency would now be declared. The CCO assessed the critical contingency as being regional.

At 09:03 the CCO published OATIS notice #9595 giving notice of declaration of a critical contingency. This was followed by issuing notice by email at 09:05 and by SMS text alert at 09:08. At 09:12 the CCO updated the 0800 telephone number message accordingly.

At 09:10 the CCO contacted Transpower and advised that gas supplies to the thermal power generation plants would not be affected.

The CCO determined and declared the critical contingency in accordance with the regulations, the service provider agreement and published processes.

Item	Element	Ref	Description
3.2	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 notices issued by the CCO is included in Appendix 1. Copies of the notices issued by the CCO are included in appendix 2. Notices were given in accordance with regulations and processes described in the CCO information guide and communications plan. Prior to notices being issued the CCO consulted with the TSO to agree the wording.

The CCO issued notices during the critical contingency in accordance with the regulations, the service provider agreement and published processes.



Item	Element	Ref	Description
3.3	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

At 09:00 the CCO and EC met to discuss the situation. The EC advised *"It will take less than two hours to reach the threshold value of 37 barg at Waitangirua gate station and that demand curtailment would be required. The shortest repair time could be between 5-6 hours for the installation of a temporary repair or up to 24 hours for a permanent repair. Time will be needed to excavate and inspect before a decision can be made. Update expected in 2-3 hours."* Minimum pressure requirements at the inlet to Waitangirua gate station were discussed and it was agreed that pressure should be maintained at or above 30 barg wherever possible to ensure continued safe supply to the connected downstream distribution systems.

At 09:03 the CCO requested a download of live SCADA data for demand modelling calculations.

At 09:15 the CCO commenced demand modelling calculations to establish the required levels of curtailment. It was calculated that it would take 1 hour to reach 37 barg at the inlet to Waitangirua delivery point with no demand curtailment which was consistent with the earlier estimation given by the TSO. It was further calculated that it would take 8.3 hours to reach 30 barg at Waitangirua if demands in bands 0-5 were curtailed. It was also further calculated that it would take 11.05 hours to reach 30 barg at Waitangirua if all demand was curtailed.

At 09:35 the CCO and EC met to discuss the curtailment plans. It was agreed that bands 0-5 should be curtailed in the first instance but that this should be reviewed when more details about the site situation were known.

At 09:38 the CCO published OATIS notice #9599 giving directions to curtail all demands in bands 0-5 immediately at the gate stations affected by the event. This was followed by issuing the notice by email at 09:47 and by SMS text alert at 09:48. At 09:57 the CCO updated the 0800 telephone number message accordingly.

At 10:40 the CCO published a status update notice #9603 on OATIS giving more details about the situation.

At 11:45 the CCO and EC met to discuss the status of the situation. The EC advised *"Pipeline had been excavated and inspected and that a clean 25mm diameter hole had been found in the pipeline wall with no gouging or cracking evident. Temporary repair by split clamp possible for this type of damage. Clamp located and currently in transit to site by helicopter with ETA of 12:00. If clamp can be installed successfully then re-pressurisation may be able to commence at 14:00. If temporary repair clamp not successful then it may take between 12-24 hours to complete a cut-out repair."* The CCO decided it would be beneficial to now direct curtailment of band 6 consumers as this would be a likely requirement in an actual event due to the expected lag between direction and full curtailment of band 0-5 consumers and uncertainty over the time to repair.

At 11:58 the CCO published OATIS notice #9604 giving directions to also curtail demand in band 6 immediately at the gate stations affected by the event. This was followed by issuing the notice by email at 12:00 and by SMS text alert at 12:00. At 12:10 the CCO updated the 0800 telephone number message accordingly. At 12:15 the CCO updated OATIS notice #9603 to provide more details about the situation.

At 14:00 the CCO and EC met to discuss the latest position. The EC advised *"A successful temporary repair had been made to the pipeline and that the section isolated by the closure of the main line valves will now be re-pressurised. It is expected that this operation will take about 30 minutes after which pipeline conditions would start to return to normal. It will take a further 60 minutes for the pipeline to recover to normal operating conditions."* It was agreed that demand restoration should commence for band 6 consumers soon after 14:30



and band 0-5 consumers at 15:30 following full pipeline pressure recovery.

At 14:34 the CCO published OATIS notice #9607 giving directions that demand to band 6 consumers could be restored immediately and that demand to band 0-5 consumers could be restored commencing at 15:30 at the gate stations affected by the event. This was followed by issuing the notice by email at 14:36 and by SMS text alert at 14:39. At 14:42 the CCO updated the 0800 telephone number message accordingly. At 14:45 the CCO updated OATIS notice #9603 to provide more details about the situation.

The CCO directed demand curtailment and restoration during the critical contingency in accordance with the regulations, the service provider agreement and published processes. The wording on all CCO notices was discussed and/or agreed with the EC prior to the notices being issued.

Feedback was received about the time stamp on the CCO update notice #9603 not being updated when updates were issued. The update notice was issued as intended in CCO processes.

Recommendation 3.3(a) : CCO to revise process to include issue of separate individually time stamped notices when issuing update notices.

Item	Element	Ref	Description
3.4	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

Restoration of demand was made available to all curtailed consumers at 15:30 following pipeline conditions returning to normal operational levels. The CCO determined that the critical contingency could be terminated at 15:40 as the transmission system was now capable of supplying gas to all consumers at the level at which gas was supplied immediately before the event.

At 15:45 the CCO published OATIS notice #9608 giving notice of termination of the critical contingency. This was followed by email notification at 15:45 and by SMS text alert at 15:45. At 15:49 the CCO updated the 0800 telephone number message accordingly.

The CCO terminated the critical contingency in accordance with the regulations, the service provider agreement and published processes.

Item	Element	Ref	Description
3.5	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.

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

The CCO demand modelling system operated successfully during the exercise.



4. TSO Test Exercise Elements

Item	Element	Ref	Description
4.1	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.
<p>Observations & Recommendations</p> <p>The first exercise interject was given at 08:25 to the duty gas operations controller. At 08:30 the duty gas operations controller notified the TSO duty manager about the incident. At 08:35 the CCO duty manager received a phone call from the duty gas operations controller giving details about the event. The CCO duty manager received written confirmation of this phone call by email from GOCC at 08:54.</p> <p>At 08:40 the TSO duty manager declared an emergency and become the emergency controller (EC).</p> <p>At 08:45 the CCO and EC met to discuss the situation . The CCO was advised by the EC that <i>"Pressure at the inlet to Waitangirua gate station is just above 40 barg and reducing. It is estimated that it will take about two hours to reach the threshold value of 37 barg. Technician on way to site with ETA of 45 minutes. Damage will be assessed and repair options evaluated."</i> The threshold values defined in the Vector CCMP at the Waitangirua gate station are 10 hours to 37 barg. Due to the circumstances the CCO determined and declared a critical contingency as it was not appropriate to notify a potential critical contingency in the circumstances.</p> <p>The communications from Vector prior to the critical contingency being declared were consistent with the processes described in the Vector CCMP.</p>			

Item	Element	Ref	Description
4.2	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.
<p>Observations & Recommendations</p> <p>A summary of the notices issued by the TSOs is included in appendix 1. Copies of the notices issued are included in appendix2.</p> <p>Following the issue of the CCO OATIS notice #9595 at 09:03 giving declaration of the critical contingency Vector issued OATIS notice #9596 at 09:17 and MDL issued OATIS notice #9597 at 09:33 giving notice of critical contingency declaration. The Vector notice of declaration referred to the MDL CCMP on in error.</p> <p>It was noted at this stage that the MDL pipeline was not affected by the exercise.</p> <p>Following the issue of CCO OATIS notice #9599 at 09:39 directing demand curtailment Vector issued OATIS notice #9602 at 10:07 giving directions to curtail demand. The band 2-6 curtailment table was omitted from this notice in error. It is noted that it took 28 minutes for Vector to issue the curtailment notice from receipt of the CCO notice.</p> <p>Recommendation 4.2(a) : Vector to consider ways of improving the processes employed to issue timely and accurate notices. [This issue is also referred to in recommendation 1 in the Vector TSO exercise report]</p> <p>Following the issue of CCO OATIS notice #9604 at 11:58 directing revision of demand curtailment Vector issued OATIS notice #9605 at 12:07 giving directions to revise demand curtailment.</p> <p>Following the issue of CCO OATIS notice #9607 at 14:34 directing commencement of demand restoration Vector issued OATIS notice #9606 at 14:45 giving directions to commence demand restoration.</p> <p>Following the issue of the CCO OATIS notice #9608 at 15:45 giving notice of termination of</p>			



the critical contingency Vector issued OATIS notice #9594 at 15:50 and MDL issued OATIS notice #9609 at 15:59 giving notice of critical contingency termination.

The TSOs issued demand curtailment and restoration notices in accordance with the regulations and the CCMPs following receipt of notices from the CCO.

Item	Element	Ref	Description
4.3	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

TSO notices issued following receipt of the CCO notices are summarised in appendix 1. Copies of the notices issued are included in appendix 3 for Vector and appendix 4 for MDL.

The TSO forwarded all demand curtailment and restoration compliance updates received from Retailers to the CCO. Some update forms received from retailers were not fully consistent with the Vector CCMP. This issue is covered in element 5.3 of this report.

No telephone calls were made to any Large Consumers as none were affected by the critical contingency.

All notices were published as critical notices in OATIS. The process, content and timing of notices and communications was consistent with the regulations and the CCMPs.

At 09:37 MDL issued OATIS notice #9598 giving important information about MDL determining that a 'Non-Maui Regional Critical Contingency' existed. The notice was issued in accordance with the MDL published document entitled '2010-12-21 Operating Procedure: Curtailment/ILON'. The CCO provides guidance on the critical contingency declaration notice with regard to the regional status of the critical contingency. The guidance was included on the critical contingency declaration to assist industry participants in understanding if the TSOs imbalance methodologies would be applied after the critical contingency. It is possible that in some circumstances the regional status of a critical contingency may change during a critical contingency and hence it may not be entirely appropriate for the CCO to give any guidance on the regional status of the critical contingency. It is noted that there are no requirements in the regulations for the CCO to provide any guidance on the regional status of a critical contingency. It is also noted that Regulation 82, which provides a definition of the regional status of the critical contingency, is in Part 4 – Obligations after critical contingency.

Recommendation 4.3(a): CCO to amend the information guide and communications plan to remove the guidance provided on the critical contingency declaration notice regarding the regional status of the critical contingency.

Item	Element	Ref	Description
4.4	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 (GOCC) that is manned by an experienced and qualified duty gas operations controller at all times. A second gas operations controller is also on roster for normal office hours to support operations and carry out day-to-day tasks and liaison. The duty gas operations controller is normally the first point of contact for information regarding an event on the transmission system that may result in a critical contingency. Adequate processes, procedures, check sheets and training are in place for gas operations controllers to manage communications with the CCO in accordance with the CCMPs.



Vector and MDL also operate a roster to make available a duty manager from a pool of senior experienced managers based in Taranaki on a 24/7 basis. The duty manager will normally assume the role of emergency controller when an emergency or critical contingency occurs on the transmission system. The duty gas operations controller informs the duty manager immediately if they believe an event has the potential to cause a critical contingency. The duty manager then becomes responsible for direct communication with the CCO. Adequate processes, procedures, check sheets and training are in place for duty managers to manage communications with the CCO in accordance with the CCMPs.

At 08:40 on the day of the exercise Vector declared an emergency and activated the emergency response plan. Satisfactory resources and expertise were available to manage the emergency. Preparedness for the type of scenario used for the exercise is identified in section 2.2 of the Vector CCMP - likely events that may cause threshold breaches and remedy actions. It was evident during the exercise that Vector had adequate plans, materials and equipment available.

These processes operated successfully during the exercise. A number of positive comments were received about how well the communications and interface between the TSOs and CCO operated during the exercise.

Item	Element	Ref	Description
4.5	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

This element was not tested during the exercise as the need to restore demand in a different order was not required. Wellington region CDEM group were invited to participate in the exercise to assist in testing this element but had to decline due to supporting response to the recent earthquake in Christchurch.

Item	Element	Ref	Description
4.6	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 is fully operational but was not required during the exercise.

Information was provided to the CCO in accordance with the regulations.

Item	Element	Ref	Description
4.7	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.



Item	Element	Ref	Description
4.8	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.			



5. Retailers and Consumers Test Exercise Elements

The exercise provided an opportunity for retailers to test that their lists of consumers emergency contact details are maintained and up to date and their preparedness and ability to make communications with their consumers during a critical contingency. It was recognised that full testing of emergency contact numbers may be resource intensive so retailers were given three different participation options to select from in advance of the exercise. These are shown in the table below.

Category	Description
Full	Retailers communicate with all consumers affected by the exercise
Partial	Retailers communicate with a representative sample of consumers affected by the exercise
Facilitation	Retailers make no communication with consumers affected during the exercise

Prior the exercise each retailer indicated their selected participation level. This is shown in the table below. All retailers were requested to complete the self-assessment form contained in appendix 5 of the participants briefing document and to return this to the CCO for evaluation in completing this report. A blank copy of this form is also included in appendix 5 of this report. All retailers provided reports to the CCO regarding their participation in the exercise.

Retailer	Participation Level
Contact Energy	Partial
Ongas	Partial
Genesis	Partial
Energy Direct NZ	Facilitation
Mercury Energy	Facilitation
Greymouth Gas NZ Limited	Facilitation
Nova	Facilitation

It is noted that Mercury Energy and Greymouth Gas NZ Limited did not have any consumers affected by the exercise.

Item	Element	Ref	Description
5.1	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)	Following completion of exercise retailers to complete self assessment report in appendix 5 of participants briefing document.
Observations & Recommendations All retailers described adequate arrangements and processes.			

Item	Element	Ref	Description
5.2	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)	Following completion of exercise retailers to complete self assessment report in appendix 5 of participants briefing document.
Observations & Recommendations All retailers described adequate arrangements and processes.			



Item	Element	Ref	Description
5.3	Retailers and large consumers to provide compliance updates to TSOs.	R55	CCO to monitor the frequency and content of compliance updates provided to TSOs during the exercise.

Observations & Recommendations

There were no large consumers affected by the exercise. Two retailers (Mercury Energy and Greymouth Gas NZ Limited) were not required to provide compliance updates as they had no consumers affected by the exercise.

Two retailers (Energy Direct and Nova) used the compliance update template included in appendix 6 of the Vector CCMP. Two retailers (Contact and Ongas) used a different compliance update form which had been issued separately by Vector. One retailer (Genesis) did not use a compliance update template but simply provided a list in an email.

Two retailers (Genesis and Nova) did not include any annual consumption data on the compliance updates.

One retailer (Nova) included domestic consumers in the band 6 consumer totals on the compliance reports. The CCO discussed this issue with the retailer to clarify their understanding of the regulations. This issue will be reinforced during future training and workshops delivered by the CCO.

Four retailers (Nova, Contact Energy, Energy Direct and Ongas) provided regular compliance updates to Vector in accordance with their CCMP.

One retailer (Genesis) did not provide regular compliance updates as required by the Vector CCMP due to malfunctions in their reporting systems during the exercise. Commentary on this issue was given on the feedback form and is now being addressed.

Vector forwarded all retailer compliance updates to the CCO. The timing between receipt by the TSO and forwarding to the CCO varied but did not give rise to any difficulties.

It is noted that regulation 55(2) requires retailers to confirm compliance with the directions of the TSO and to confirm consumers compliance with the retailer's directions issued in accordance with the TSO directions. The existing compliance update notice does not differentiate between these two requirements.

Recommendation 5.3(a) : Vector to review the content of compliance updates and how they should be provided and confirm these arrangements with retailers. This should include providing copies direct to the CCO. [this issue is also referred to in recommendation 2 in the Vector TSO exercise report]

Recommendation 5.3(b) : Vector to develop a process to track and follow up on retailers compliance updates not provided by the required time during a critical contingency.

It was noted that retailers provided consumer information to the CCO in accordance with r39 or the email from the CCO to retailers dated 23 December 2009 requesting annual updates by 31 March each year. The request from the CCO was made due to the impractical application of r39 which may give rise to either double-counting or omission of consumer demands if consumer switches do not trigger reciprocal retailer reports.

Recommendation 5.3(c) : GIC to consider the development of guidelines for retailers to issue regular consumer information updates to the CCO and possible future amendments of r39.



Item	Element	Ref	Description
5.4	Retailers give instructions by urgent notice to consumers affected by the critical contingency.	R56	Following completion of exercise retailers to complete self assessment report in appendix 5 of participants briefing document.
<p>Observations & Recommendations</p> <p>All retailers described adequate arrangements and processes. It was not clear from some responses how initial verbal contact by telephone would be confirmed in writing as required in r23.</p> <p>One retailer (Contact Energy) expressed concern that contacting band 6 consumers by telephone was difficult due to the high volume, emergency contact telephone numbers not being held, no numbers being held, incorrect numbers being held and calls not being answered.</p> <p>It was the general view of most retailers that band 0-5 consumers have a good understanding of what a critical contingency is, can be readily contacted using their emergency contact numbers and would curtail demand when instructed.</p> <p>One retailer (Contact Energy) expresses concern that where a band 6 consumer could be contacted they were unaware of what a critical contingency was and why they should curtail demand as instructed.</p> <p>Recommendation 5.4(a) : GIC to consider the development of guidelines on the acceptable methods and systems for retailers to give urgent notices to consumers during a critical contingency.</p>			

Item	Element	Ref	Description
5.5	Retailers advise consumers of the termination of the critical contingency.	R61(b)	Following completion of exercise retailers to complete self assessment report in appendix 5 of participants briefing document.
<p>Observations & Recommendations</p> <p>All retailers described adequate arrangements for advising consumers of termination in accordance with r61(b).</p> <p>It is be noted that r61(c) requires retailers to inform consumers connected directly to the transmission system by urgent notice. No consumers in this category were affected by the exercise.</p>			



6. Other Identified Material Issues

During the exercise Powerco expressed concern that although the scenario had potential to severely affect the operation of their gas distribution network in Wellington there was no liaison between them and the affected retailers.

Communication between retailers and gas distributors is essential during a critical contingency. The vast majority of band 2-6 consumers are connected to gas distribution networks and distributors would have an essential role to play in assisting with compliance during the demand curtailment and restoration stages.

It is also noted that gas distributors and retailers may need to liaise closely during curtailment and restoration during events on the distribution network only that do not involve the CCO or the TSOs. Similar processes to those used during a critical contingency would be necessary.

This issue was also identified in recommendation 4.6(a) in the CCO 2010 test exercise report. It is also referred to in section 5 of this report.

Recommendation 6(a): Gas distributors and retailers to jointly develop formal processes and/or agreements for liaison during a critical contingency or events confined to the distribution network.

Appendix 1 – Notice Summary

CCO Notices

Notice Description	CCO OATIS ID#	CCO OATIS Notice Posted Time	CCO Email Notice Time Sent	CCO SMS Text Alert Time Sent
Exercise Commenced	9592	07:59	08:00	08:01
Critical Contingency Declaration	9595	09:03	09:05	09:08
Demand Curtailment	9599	09:39	09:47	09:48
Status Update	9603	10:40	n/a	n/a
Revised Demand Curtailment	9604	11:58	12:00	12:00
Status Update Revised	9603	12:15	n/a	n/a
Demand Restoration 1	9607	14:34	14:36	14:39
Status Update Revised	9603	14:45	n/a	n/a
Critical Contingency Termination	9608	15:45	15:45	15:45
Exercise Terminated	9610	16:38	16:43	16:45

Vector Notices

Notice Description	Vector OATIS ID#	Vector OATIS Notice Time Posted
Critical Contingency Declaration	9596	09:17
Demand Curtailment	9602	10:17
Revised Demand Curtailment	9605	12:07
Demand Restoration 1	9606	14:45
Critical Contingency Termination	9594	15:50

MDL Notices

Notice Description	MDL OATIS ID#	MDL OATIS Notice Time Posted
Critical Contingency Declaration	9597	09:33
Non-Maui Regional Critical Contingency - Important Information	9598	09:37
Critical Contingency Termination	9609	15:59

Appendix 2 - CCO Notices

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

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

2. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

3. Summary of actions being taken to resolve event

Vector gas transmission personnel attending site to assess damage and repair options.

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.
- (i) The CCO will also publish a Status Update Notice on the CCO internet site. The notice will contain supplementary information about the Critical Contingency and will be updated regularly.

Direction to Implement Demand Curtailment

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

1. Curtailments directed

Bands 0, 1a and 1b: Demand Curtailment Location & Direction

Gate #	Gas Gate Name	Band	Curtailment Direction
STR00501	AHUROA STORAGE FACILITY (Stratford #3)	0	Not affected
HPS02993	HUNTLY POWER STATION (Rankin Units 1-4)	1a	Not affected
HPS02993	HUNTLY POWER STATION (Units 5 & 6)	1b	Not affected
NPS00530	NEW PLYMOUTH POWER STATION	1b	Not affected
BER00653	BERTRAND RD (Methanex)	1b	Not affected
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	1b	Not affected
OTB00301	OTAHUHU B POWER STATION	1b	Not affected
SDN00101	SOUTHDOWN POWER STATION	1b	Not affected
TRC02003	TE RAPA COGENERATION PLANT	1b	Not affected
BAL08201	BALLANCE AMMONIA-UREA (Fuel) (designated as minimal load consumer)	1b	Not affected
BAL09626	BALLANCE AMMONIA-UREA (Process) (designated as minimal load consumer)	1b	Not affected
TCC00201	TARANAKI COMBINED CYCLE (TCC)	1b	Not affected
STR00521	STRATFORD POWER STATION PEAKERS (Stratford #2)	1b	Not affected

Bands 2-6: Demand Curtailment Direction

Curtailment Band	Curtailment Direction
Band 2	Curtail all demand immediately
Band 3	Curtail all demand immediately
Band 4	Curtail all demand immediately
Band 5	Curtail all demand immediately
Band 6	Not affected

Bands 2-6: Demand Curtailment Locations

Gate #	Gas gate name
LVN24401	LEVIN
KUK22401	KUKU
OTA22601	OTAKI
THO22701	TE HORO
WAK22801	WAIKANA
PAU20101	PARAPARAUMU
PAE23001	PAEKAKARIKI
PAH23101	PAUATAHANUI 2
PAH23201	PAUATAHANUI
BEL24510	BELMONT
WTG06910	WAITANGIRUA
TWA35610	TAWA
TWB24810	TAWA B (NOVA)

2. Event causing critical contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

3. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

4. Summary of actions being taken to resolve event

Vector gas transmission personnel attending site to assess damage and repair options.

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.
- (h) The CCO will also publish a Status Update Notice on the CCO internet site. The notice will contain supplementary information about the Critical Contingency and will be updated regularly.

Direction to Revise Demand Curtailment

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

5. Curtailments to be implemented

Bands 0, 1a and 1b: Demand Curtailment Location & Direction

Gate #	Gas Gate Name	Band	Curtailment Direction
STR00501	AHUROA STORAGE FACILITY (Stratford #3)	0	Not affected
HPS02993	HUNTLY POWER STATION (Rankin Units 1-4)	1a	Not affected
HPS02993	HUNTLY POWER STATION (Units 5 & 6)	1b	Not affected
NPS00530	NEW PLYMOUTH POWER STATION	1b	Not affected
BER00653	BERTRAND RD (Methanex)	1b	Not affected
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	1b	Not affected
OTB00301	OTAHUHU B POWER STATION	1b	Not affected
SDN00101	SOUTHDOWN POWER STATION	1b	Not affected
TRC02003	TE RAPA COGENERATION PLANT	1b	Not affected
BAL08201	BALLANCE AMMONIA-UREA (Fuel) (designated as minimal load consumer)	1b	Not affected
BAL09626	BALLANCE AMMONIA-UREA (Process) (designated as minimal load consumer)	1b	Not affected
TCC00201	TARANAKI COMBINED CYCLE (TCC)	1b	Not affected
STR00521	STRATFORD POWER STATION PEAKERS (Stratford #2)	1b	Not affected

Bands 2-6: Demand Curtailment Direction

Curtailment Band	Curtailment Direction
Band 2	Curtail all demand immediately
Band 3	Curtail all demand immediately
Band 4	Curtail all demand immediately
Band 5	Curtail all demand immediately
Band 6	Curtail all demand immediately

Bands 2-6: Demand Curtailment Locations

Gate #	Gas gate name
LVN24401	LEVIN
KUK22401	KUKU
OTA22601	OTAKI
THO22701	TE HORO
WAK22801	WAIKANAE
PAU20101	PARAPARAUMU
PAE23001	PAEKAKARIKI
PAH23101	PAUATAHANUI 2
PAH23201	PAUATAHANUI
BEL24510	BELMONT
WTG06910	WAITANGIRUA
TWA35610	TAWA A
TWB24810	TAWA B (NOVA)

6. Event causing critical contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

7. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

8. Summary of actions being taken to resolve event

Vector gas transmission personnel attending site to assess damage and temporary/permanent repair options.

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.

The CCO will also publish a Status Update Notice on the CCO internet site. The notice will contain supplementary information about the Critical Contingency and will be updated regularly.

Direction to Restore Demand

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

1. Details regarding order for restoration of demand

As detailed below

2. Restoration of demand now directed

Bands 0, 1a and 1b: Demand Restoration Location & Direction

Gate #	Gas Gate Name	Band	Curtailement Direction
STR00501	AHURUA STORAGE FACILITY (Stratford #3)	0	Not affected
HPS02993	HUNTLY POWER STATION (Rankin Units 1-4)	1a	Not affected
HPS02993	HUNTLY POWER STATION (Units 5 & 6)	1b	Not affected
NPS00530	NEW PLYMOUTH POWER STATION	1b	Not affected
BER00653	BERTRAND RD (Methanex)	1b	Not affected
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	1b	Not affected
OTB00301	OTAHUHU B POWER STATION	1b	Not affected
SDN00101	SOUTHDOWN POWER STATION	1b	Not affected
TRC02003	TE RAPA COGENERATION PLANT	1b	Not affected
BAL08201	BALLANCE AMMONIA-UREA (Fuel) (designated as minimal load consumer)	1b	Not affected
BAL09626	BALLANCE AMMONIA-UREA (Process) (designated as minimal load consumer)	1b	Not affected
TCC00201	TARANAKI COMBINED CYCLE (TCC)	1b	Not affected
STR00521	STRATFORD POWER STATION PEAKERS (Stratford #2)	1b	Not affected

Bands 2-6: Demand Restoration Direction

Curtailement Band	Restoration Direction
Band 2	Restoration can commence at 15:30 16/03/11
Band 3	Restoration can commence at 15:30 16/03/11
Band 4	Restoration can commence at 15:30 16/03/11
Band 5	Restoration can commence at 15:30 16/03/11
Band 6	Restoration can commence immediately

Bands 2-6: Demand Restoration Locations

Gate #	Gas gate name
LVN24401	LEVIN
KUK22401	KUKU
OTA22601	OTAKI
THO22701	TE HORO
WAK22801	WAIKANA E
PAU20101	PARAPARAUMU
PAE23001	PAEKAKARIKI
PAH23101	PAUATAHANUI 2
PAH23201	PAUATAHANUI
BEL24510	BELMONT
WTG06910	WAITANGIRUA
TWA35610	TAWA A
TWB24810	TAWA B (NOVA)

3. Event causing critical contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

4. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

5. Summary of actions being taken to resolve event

Temporary repair clamp successfully installed and tested. Main line valves re-opened and normal system conditions now being restored.

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.
- (i) The CCO will also publish a Status Update Notice on the CCO internet site. The notice will contain supplementary information about the Critical Contingency and will be updated regularly.

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

15:45 16/03/11

2. Event that caused critical contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

3. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

4. Details of event resolution

Temporary repair clamp successfully installed and tested. Main line valves re-opened and normal system conditions have now been restored.

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.

Appendix 3 – Vector Notices

Notice Type	Critical
Notice Identifier	9596
Notice Name	*EXCERCISE TUARUA* - Notice of Declaration of Critical Contingency
Published	16/03/2011 09:17
Begin Date & Time	16/03/2011 09:11
End Date & Time	16/03/2011 23:59
Notice Period	0
Required Response Indicator	Action Required
Detail	
	16/03/2011
	EXCERCISE TUARUA

This notice is issued in accordance with the Vector CCMP. The Critical Contingency Operator declared a critical contingency at 09:01 on 16 March 2011 under Regulation 49 of the Gas Governance (Critical Contingency Management) Regulations 2008.

This Critical Contingency has been designated as a Regional Critical Contingency.

It is advised that all directions issued by the Critical Contingency Operator from the declaration of the critical contingency must be complied with.

The communications described in the Critical Contingency Operator communication plan and MDL CCMP are now activated.

Load curtailment is not required at this stage and instructions are awaited from the Critical Contingency Operator.

1. Event causing critical contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

2. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

3. Summary of actions being taken to resolve event

Vector gas transmission personnel attending site to assess damage and repair options.

Notes:

(a) This notice will be considered received by the recipient on the date and at the time it is first posted on OATIS.

(b) Alerts regarding this notice will also be communicated by email and SMS text message

Notice Type	Critical
Notice Identifier	9602
Notice Name	*EXCERCISE TUARUA* - Notice of Direction to Curtail Demand
Published	16/03/2011 10:07
Begin Date & Time	16/03/2011 09:52
End Date & Time	16/03/2011 23:59
Notice Period	0
Required Response Indicator	Action Required

16/03/2011
EXCERCISE TUARUA

Notice of Direction to Curtail Demand

This notice is issued in accordance with the Vector CCMP. The CCO gave direction to curtail demand at 09:39 on 16 March 2011 under Regulation 53 (1) (d) (i) of the Gas Governance (Critical Contingency Management) Regulations 2008.

It is advised that all directions issued by the Critical Contingency Operator pursuant to the declaration of the critical contingency must be complied with.

Retailers and Large Consumers must comply with this direction as soon as reasonably practicable and provide Vector with updates on compliance in accordance with Regulation 55 at hourly intervals or at agreed times from the time this notice was issued. Updates to be communicated to Vector at the contact details in Appendix 6 using the proforma notice included in Appendix A5.5.

The communications described in the Critical Contingency Operator Communication Plan and Vector CCMP continue to be activated.

1. Event causing Critical Contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

2. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

3. Summary of actions being taken to resolve event

Vector gas transmission personnel attending site to assess damage and repair options.

4. Curtailments now directed

Curtailment bands: 2-6

Description of consumers to be curtailed Location of customers to be curtailed

LVN24401 LEVIN
KUK22401 KUKU
OTA22601 OTAKI
THO22701 TE HORO
WAK22801 WAIKANAE
PAU20101 PARAPARAUMU
PAE23001 PAEKAKARIKI
PAH23101 PAUATAHANUI 2
PAH23201 PAUATAHANUI
BEL24510 BELMONT
WTG06910 WAITANGIRUA
TWA35610 TAWA
TWB24810 TAWA B (NOVA)

Notes:

(a) The notice will be considered received by the recipient on the date and at the time it is first posted on OATIS.

(b) Alerts regarding this notice will also be communicated by email and SMS text message.

Notice Type Critical
Notice Identifier 9605
Notice Name *EXERCISE TUARUA* - Notice of Direction to Revise Curtailed Demand
Published 16/03/2011 12:07
Begin Date & Time 16/03/2011 11:59
End Date & Time 16/03/2011 23:59
Notice Period 0
Required Response Indicator Action Required
Detail
 16/03/2011
 EXERCISE TUARUA

This notice is issued in accordance with the Vector CCMP. The Critical Contingency Operator gave direction to curtail demand at 11:57 on 16 March 2011 under Regulation 53 (1) (d) (ii) of the Gas Governance (Critical Contingency Management) Regulations 2008.

For the avoidance of doubt this notice supersedes the original Notice of Direction to Curtail Demand and any previous notice(s) of Direction to Revise Demand Curtailment. It includes all demand previously directed for curtailment and all additional demands that now require curtailment.

It is advised that all directions issued by the Critical Contingency Operator pursuant to the declaration of the Critical Contingency must be complied with.

Retailers and Large Consumers must comply with this direction as soon as reasonably practicable and provide Vector with updates on compliance in accordance with Regulation 55 at hourly intervals or at agreed times from the time this notice was issued. Updates to be communicated to Vector at the contact details in Appendix 6 using the proforma notice included in Appendix A5.5.

The communications described in the Critical Contingency Operator Communication Plan and Vector CCMP continue to be activated.

1. Event causing critical Contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

2. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

3. Summary of actions being taken to resolve event

Vector gas transmission personnel attended site and have completed an assessment of the damage. A repair action plan has been established and this is now in progress.

4. Curtailments now directed

Bands 0, 1a and 1b: Demand Curtailment Location & Direction

Gate #	Gas Gate Name	Band	Curtailment	Direction
STR00501	AHURUA STORAGE FACILITY (Stratford #3)	0	Not affected	
HPS02993	HUNTLY POWER STATION (Rankin Units 1-4)	1a	Not affected	
HPS02993	HUNTLY POWER STATION (Units 5 & 6)	1b	Not affected	
NPS00530	NEW PLYMOUTH POWER STATION	1b	Not affected	
BER00653	BERTRAND RD (Methanex)	1b	Not affected	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	1b	Not affected	
OTB00301	OTAHUHU B POWER STATION	1b	Not affected	
SDN00101	SOUTHDOWN POWER STATION	1b	Not affected	
TRC02003	TE RAPA COGENERATION PLANT	1b	Not affected	
BAL08201	BALLANCE AMMONIA-UREA (Fuel) (designated as minimal load consumer)	1b	Not affected	
BAL09626	BALLANCE AMMONIA-UREA (Process) (designated as minimal load consumer)	1b	Not affected	
TCC00201	TARANAKI COMBINED CYCLE (TCC)	1b	Not affected	
STR00521	STRATFORD POWER STATION PEAKERS (Stratford #2)	1b	Not affected	

Bands 2-6: Demand Curtailment Direction
Curtailment Band Curtailment Direction
Band 2 Curtail all demand immediately
Band 3 Curtail all demand immediately
Band 4 Curtail all demand immediately
Band 5 Curtail all demand immediately
Band 6 Curtail all demand immediately

Bands 2-6: Demand Curtailment Locations

Gate # Gas gate name
LVN24401 LEVIN
KUK22401 KUKU
OTA22601 OTAKI
THO22701 TE HORO
WAK22801 WAIKANAE
PAU20101 PARAPARAUMU
PAE23001 PAEKAKARIKI
PAH23101 PAUATAHANUI 2
PAH23201 PAUATAHANUI
BEL24510 BELMONT
WTG06910 WAITANGIRUA
TWA35610 TAWA A
TWB24810 TAWA B (NOVA)

Notes:

(a) The notice will be considered received by the recipient on the date and at the time it is first posted on OATIS.

(b) Alerts regarding this notice will also be communicated by email and SMS text message.

Notice Type	Critical
Notice Identifier	9606
Notice Name	*EXERCISE TUARUA* - Notice of Direction to Restore Demand
Published	16/03/2011 14:45
Begin Date & Time	16/03/2011 14:44
End Date & Time	16/03/2011 23:59
Notice Period	0
Required Response Indicator	Action Required

Detail

16/03/2011
EXERCISE TUARUA

This notice is issued in accordance with the Vector CCMP. The Critical Contingency Operator gave direction to restore demand at 14:35 on 16 March 2011 under Regulation 53 (1) (e) (i) of the Gas Governance (Critical Contingency Management) Regulations 2008.

For the avoidance of doubt this notice supersedes any previous notice(s) of Direction to Restore Demand. It includes all demand previously directed for restoration and any additional demands that can now be restored.

It is advised that all directions issued by the Critical Contingency Operator pursuant to the declaration of the Critical Contingency must be complied with.

Retailers and Large Consumers must comply with this direction as soon as reasonably practicable and provide Vector with updates on compliance in accordance with Regulation 55 at hourly intervals or at agreed times from the time this notice was issued. Updates to be communicated to Vector at the contact details in Appendix 6 using the proforma notice included in Appendix A5.5.

This direction indicates that demand can be restored from the transmission system only. Retailers are required to consult with gas distributors and comply with any of their instructions to ensure that restoration takes place in a safe and orderly manner on the connected distribution system. The communications described in the Critical Contingency Operator Communication Plan and Vector CCMP continue to be activated.

1. Event causing Critical Contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

2. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

3. Summary of actions being taken to resolve event

Temporary repair clamp successfully installed and tested. Main line valves re-opened and normal system conditions now being restored.

4. Demand Restoration now directed

Bands 0, 1a and 1b: Demand Restoration Location & Direction

Gate #	Gas Gate Name	Band	Curtailment	Direction
STR00501	AHURUA STORAGE FACILITY	(Stratford #3)	0	Not affected
HPS02993	HUNTLY POWER STATION	(Rankin Units 1-4)	1a	Not affected
HPS02993	HUNTLY POWER STATION	(Units 5 & 6)	1b	Not affected
NPS00530	NEW PLYMOUTH POWER STATION	1b	Not affected	
BER00653	BERTRAND RD (Methanex)	1b	Not affected	
NGA00669	NGATIMARU RD (DELIVERY) (Methanex)	1b	Not affected	
OTB00301	OTAHUHU B POWER STATION	1b	Not affected	
SDN00101	SOUTHDOWN POWER STATION	1b	Not affected	
TRC02003	TE RAPA COGENERATION PLANT	1b	Not affected	
BAL08201	BALLANCE AMMONIA-UREA (Fuel)	(designated as minimal load consumer)	1b	Not affected
BAL09626	BALLANCE AMMONIA-UREA (Process)	(designated as minimal load consumer)	1b	Not affected
TCC00201	TARANAKI COMBINED CYCLE (TCC)	1b	Not affected	
STR00521	STRATFORD POWER STATION PEAKERS (Stratford #2)	1b	Not affected	

Bands 2-6: Demand Restoration Direction
Curtailment Band Restoration Direction
Band 2 Restoration can commence at 15:30 16/03/11
Band 3 Restoration can commence at 15:30 16/03/11
Band 4 Restoration can commence at 15:30 16/03/11
Band 5 Restoration can commence at 15:30 16/03/11
Band 6 Restoration can commence immediately

Bands 2-6: Demand Restoration Locations

Gate # Gas gate name
LVN24401 LEVIN
KUK22401 KUKU
OTA22601 OTAKI
THO22701 TE HORO
WAK22801 WAIKANAE
PAU20101 PARAPARAUMU
PAE23001 PAEKAKARIKI
PAH23101 PAUATAHANUI 2
PAH23201 PAUATAHANUI
BEL24510 BELMONT
WTG06910 WAITANGIRUA
TWA35610 TAWA A
TWB24810 TAWA B (NOVA)

5. Details regarding order for restoration of demand

As detailed above

Notes:

- (a) The notice will be considered received by the recipient on the date and at the time it is first posted on OATIS.
- (b) Alerts regarding this notice will also be communicated by email and SMS text message.

Notice Type Critical
Notice Identifier 9594
Notice Name *EXERCISE TUARUA* - Notice of Termination of Critical Contingency
Published 16/03/2011 15:50
Begin Date & Time 16/03/2011 15:50
End Date & Time 16/03/2011 23:59
Notice Period 0
Required Response Indicator Action Required
Detail
16/03/2011
EXERCISE TUARUA

This notice is issued in accordance with the Vector CCMP. The Critical Contingency Operator terminated the Critical Contingency at 15:45 on 16 March 2011 under Regulation 61 of the Gas Governance (Critical Contingency Management) Regulations 2008.

It is advised that all directions issued by the Critical Contingency Operator pursuant to the declaration of the Critical Contingency must be complied with.

Under Regulation 61 (b) Retailers are directed to advise their consumers that the Critical Contingency has been terminated. Retailers must comply with this direction as soon as reasonably practicable.

The communications described in the Critical Contingency Operator Communication Plan and Vector CCMP are deactivated at the time and date that the Critical Contingency is terminated.

1. Time and date Critical Contingency terminated

15:45 16 March 2011

2. Event that caused Critical Contingency

100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

3. Areas of transmission system affected

All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

4. Details of event resolution

Temporary repair clamp successfully installed and tested. Main line valves re-opened and normal system conditions have now been restored.

Notes:

(a) The notice will be considered received by the recipient on the date and at the time it is first posted on OATIS.

(b) Alerts regarding this notice will also be communicated by email and SMS text message.

Appendix 4 – MDL Notices

Notice Type	Critical
Notice Identifier	9597
Notice Name	*EXCERCISE TUARUA* - Notice of Declaration of Critical Contingency
Published	16/03/2011 09:33
Begin Date & Time	16/03/2011 09:11
End Date & Time	16/03/2011 23:59
Notice Period	0
Required Response Indicator	Action Required
Detail	
	16/03/2011
	EXCERCISE TUARUA

This notice is issued in accordance with the MDL CCMP. The Critical Contingency Operator declared a Critical Contingency at 09:01 on 16 March 2011. This Critical Contingency has been designated as a Non-Maui Regional Critical Contingency.

It is advised that all directions issued by the Critical Contingency Operator from the declaration of the Critical Contingency must be complied with.

The communications described in the Critical Contingency Operator communication plan and MDL CCMP are now activated.

Load curtailment is not required at this stage and instructions are awaited from the Critical Contingency Operator.

1. Event causing Critical Contingency

100 pipeline damaged by directional drill at Foxtton Beach Road, Foxtton causing large gas release. Main line valves either side of damage have tripped closed.

2. Parts of transmission system affected

Vector Pipeline: All delivery points south of Foxtton delivery point including the Wellington delivery points are isolated from supply from the north.

3. Summary of actions being taken to resolve event

Vector gas transmission personnel attending site to assess damage and repair options.

Notes:

(a) This notice will be considered received by the recipient on the date and at the time it is first transmitted to the recipient.

(b) Alerts regarding this notice will also be communicated by email and SMS text message.

(c) Critical Contingency imbalance calculations commence at 00:00 hours on the day that this notice is issued. Note that to be consistent with existing MPOC processes this is New Zealand Standard Time. Note that contingency imbalance provisions do not apply to regional critical contingencies.

Notice Type Critical
Notice Identifier 9598
Notice Name *EXERCISE TUARUA* : Non-Maui Regional Critical Contingency – Important Information
Published 16/03/2011 09:37
Begin Date & Time 16/03/2011 09:33
End Date & Time 16/03/2011 23:59
Notice Period 0
Required Response Indicator Advice Only
Detail
16/03/2011
EXERCISE TUARUA

As at 09:01 on 16 March 2011 the Critical Contingency Operator (CCO) declared a Regional Critical Contingency. MDL considers that a Regional Critical Contingency needs to be further defined to draw a distinction between:

- (a) a Regional Critical Contingency that occurs on, or pertains to a Welded Point(s) other than a Transmission Pipeline Welded Point on, the Maui Pipeline (Maui Regional CC); and
- (b) a Regional Critical Contingency that occurs on a part of the transmission system other than the Maui Pipeline e.g. a Vector Transmission Pipeline (Non-Maui Regional CC).

MDL had determined that the current circumstances constitute a Non-Maui Regional CC.

MDL, as a Transmission System Owner (TSO), is required during a Non-Maui Regional Critical Contingency to comply with the directions of the CCO and based on those directions, MDL must issue directions to retailers and large consumers in accordance with The Regulations, and in a manner consistent with this CCMP and the Communications Plan. All written notices will be posted on OATIS as critical notices. Written notification alerting parties of the existence of posted notices will be sent direct from OATIS using email and SMS text messages to the designated operational contact details contained in the "Contact Details" screen of OATIS.

It is important to note that the MPOC continues to apply during a Non-Maui Regional CC, and is subject only to the relevant provisions of the Gas Governance (Critical Contingency Management) Regulations 2008 (the Regulations). In this regard MDL will continue to perform its role and duties under the MPOC to the extent consistent with the Regulations.

Shippers and Welded Parties are advised:

- That business as usual (BAU) applies for all processes under a Non-Maui Regional CC. For example, Welded Parties may still incur Incentives Pool Debits, be issued an ILON or cashed-out, in accordance with existing BAU processes during any Day affected by a Non-Maui Regional CC.
- To access the CCO portal on OATIS to view key communications and updates from the CCO

Further details about how MPOC business as usual processes work during a Non-Maui Regional CC are provided in a document entitled "Management of the interrelationship between the MPOC and the Gas Governance (Critical Contingency Management) Regulations 2008". This document, and the other documents referred to above, can be viewed and downloaded from the Publications menu of the MDL IX under the heading "Critical Contingency".

Commercial Operator
Maui Pipeline

Notice Type Critical
Notice Identifier 9609
Notice Name *EXERCISE TUARUA* - Notice of Termination of Critical
Contingency
Published 16/03/2011 15:59
Begin Date & Time 16/03/2011 15:55
End Date & Time 16/03/2011 23:59
Notice Period 0
Required Response Indicator Action Required
Detail
16/03/2011
EXERCISE TUARUA

This notice is issued In accordance with the MDL CCMP. The Critical Contingency Operator terminated the Critical Contingency at 15:45 on 16 March 2011.

It is advised that all directions issued by the Critical Contingency Operator from the declaration of the Critical Contingency must be complied with.

The communications described in the Critical Contingency Operator communication plan and MDL CCMP are deactivated at the time and date that the Critical Contingency is terminated.

1. Time and date Critical Contingency terminated

15:45 16 March 2011

2. Event that caused Critical Contingency

Vector 100 pipeline damaged by directional drill at Foxton Beach Road, Foxton causing large gas release. Main line valves either side of damage have tripped closed.

3. Parts of transmission system affected

Vector Transmission System: All delivery points south of Foxton delivery point including the Wellington delivery points are isolated from supply from the north.

4. Details of event resolution

Temporary repair clamp successfully installed and tested. Main line valves re-opened and normal system conditions have now been restored.

Notes:

(a) The notice will be considered received by the recipient on the date and at the time it is first transmitted to the recipient.

(b) Alerts regarding this notice will also be communicated by email and SMS text message.

(c) Daily Critical Contingency imbalance calculations conclude at 2400 hours on the day this notice is issued. Note that to be consistent with existing MPOC processes this is New Zealand Standard Time. Note that contingency imbalance provisions do not apply to Regional Critical Contingencies.

Appendix 5 – Retailer Self Assessment Form

CCO Exercise Tuarua – 16 March 2011

Retailers Self Assessment Form

(Please complete and return to CCO by 25 March)

Retailer Name							
Exercise Participation Level *delete as appropriate	Full / Partial / Facilitation *						
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.							
2. How often are emergency contact numbers reviewed or audited for completeness and accuracy?							
3. How many affected consumers did you have in each band at each gas gate? Please include separate line for each gas gate.	Curtailment Band						
	2	2M	3	3M	4	5	6
Gas gate A							
Gas gate B							
Gas gate C							
Gas gate ...							
4. During the exercise how many affected consumers in each curtailment band did you give instructions to by urgent notice in accordance with regulation 56?							
5. During the exercise how many affected consumers in each curtailment band did you advise that the critical contingency had been terminated in accordance with regulation 61(b)?							
6. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.							
7. Description of methods, processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(b).							
8. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.							
9. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.							