



22 July 2015

Critical Contingency Operator 2015 Test Exercise Report

Exercise Validation 24 June 2015

Prepared for:

Gas Industry Company

Prepared by: Ross Dixon

CONTENTS

1. Summary	3
1.1. Regulatory Requirements	3
1.2. Exercise Scenario	3
1.3. Exercise Reporting	4
1.4. TSO Exercise Reports	4
1.5. CCO Assessment	4
1.6. Recommendations	5
2. Pre Test Exercise Audit of TSO by CCO	8
3. TSO Test Exercise Objectives	15
4. Summary of TSO report Observations and Recommendations	22
5. CCO Test Exercise Objectives	27
6. Retailers and Consumers Test Exercise Objectives	30
7. Asset Owners Test Exercise Objectives	34
Appendix A – Exercise Interjects	35
Appendix B – Exercise Timeline	39
Appendix C – Notice Summary	41
Appendix D – Asset Owners Public Statements and Media Appeals	42
Asset Owner Public Information Report provided to the CCO	42
Media Statements received from Genesis on behalf of the Retailers Communication Protocol	43
Appendix E – Retailer Updates	45
Appendix F – Other participant Feedback and Retailer Self-Assessment Forms	46

Acknowledgment

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.

Particular thanks go to the observers provided by Vector and the Gas Industry Company.

1. Summary

1.1. Regulatory Requirements

The Critical Contingency Operator (CCO) is required by regulation 34 of the Gas Governance (Critical Contingency Management) Regulations 2008, to instigate test exercises. These should test:

- that the Critical Contingency Management Plans (CCMPs) comply with regulation 25 and achieve the purpose of the regulations
- that the CCMPs contain the contact details required by regulation 25 and that they are current
- that the Retailers' list of emergency contact details required by regulation 43 are current

After the exercise, regulation 34 also requires that:

- Within 10 business days of the exercise each Transmission System Owner (TSO) must provide a report to the CCO explaining why it's CCMP does or does not comply with regulation 25 and gives effect to the purpose of the regulations; identifies improvements and recommends CCMP amendments.
- Within 10 days of receiving the TSO reports, the CCO provides a report to the industry body that assesses the effectiveness of the CCMPs; evaluates any amendments recommended by the TSOs; and identifies any amendments to the regulations, CCMPs, communications plan or information guide that would improve the effectiveness in achieving the purpose of the regulations.

After the exercise a change process occurs to implement the recommendations arising from the exercise reports, with consultation where appropriate.

1.2. Exercise Scenario

The exercise scenario consisted of a contractor doing some ground works near Arapuni Dam who struck Vector's Bay of Plenty gas transmission pipeline, resulting in a gas escape.

The scenario was further complicated by a new section of pipeline, which had been installed to replace the damaged section, failing inspection, extending the expected repair time.

Particular features arising from this year's scenario were:

- The CCO making an oral declaration
- The Retailers making media appeals
- A regional scenario requiring swift curtailment of a lateral section of pipeline

The complete interjects are detailed in appendix A.

1.3. Exercise Reporting

This report is based on:

- The CCO's pre-test exercise audit of the TSO
- The Vector and MDL TSO post exercise reports
- Retailer self-assessment forms and other participant feedback
- Observations from observers placed in the TSO and CCO offices during the exercise.
- The CCO's own observations

1.4. TSO Exercise Reports

Vector's TSO report considers that the current Vector CCMP complies with Regulation 25 and when implemented during the test exercise gave effect to the purpose of the Regulations. In the MDL TSO report, Vector as Technical Operator (TO) and MDL consider that the current MDL CCMP also complies with Regulation 25.

In the Vector TSO report 12 recommendations are made to improve the efficiency of processes and procedures to support application of the Vector CCMP. Of these 12 recommendations, 3 have been reproduced in the MDL report where they are specifically relevant to the MDL CCMP and MDL OATIS, and may require updates to them.

The most significant action is a potential review of the Vector and MDL CCMPs in the light of observations from the CCO that on a number of occasions thresholds specified in the Vector CCMP have been breached during what the TSO considers normal operations.

The TSO's did not make any recommendations to change the CCMPs or the regulations.

1.5. CCO Assessment

The CCO assesses that the MDL and Vector CCMPs are effective in achieving the purposes of the regulations with the following exceptions:

1. The CCMP pipeline thresholds have been found as a part of the pre-exercise audit not to be consistently applied by the TSOs. Thresholds have been breached but not notified to the CCO. It is understood from the TSO's report that:

“As CC thresholds are expressed as times to minimum pressures (i.e. gradients), it is possible to see a transient condition that appears to be crossing a threshold for critical contingency, yet poses no actual threat to the security of supply.”

The purpose of these regulations is to achieve the effective management of critical gas outages and other security of supply contingencies without compromising long-term security of supply. It is the CCO's view that this cannot be achieved while the CCMPs and the TSO's operational view of what constitutes a Critical Contingency are not aligned.

The CCO acknowledges the TSOs reassurances that on each of these occasions, even though the thresholds were breached, there was not actually a situation that warranted the determination and declaration of a critical contingency, but nonetheless feel this misalignment of operational practice and CCMP needs to be addressed as a priority.

It is the CCO's view that recommendations 1 and 2 need to be completed and the CCMPs revised to ensure that the CCMP and the TSO's operational view of what should trigger a Critical Contingency are explicitly stated and fully aligned. Only then can the CCO be confident that they are being notified of all potential Critical Contingency conditions and the industry be assured that consistent practice that does not threaten security of supply is being applied.

2. The ongoing exception with regard to the provision of information under regulation 38 (1B) and requests again that the provision of real-time remote SCADA access be progressed.
3. The gaps (Large Consumer and Gas Distributor) and quality issues identified in the TSO contact information. These have been raised as a part of the pre-exercise audits for several years, but still not addressed.
4. The data being supplied to the CCO not being even close to 'real-time' because of the lags and gaps in the supply of data files using the current protocol.

1.6. Recommendations

The following is a summary of all recommendations arising from this report, some of which originate from the TSO post exercise reports:

Item	Recommendation	Party
1	<i>Document the rationale for each threshold; confirm that each threshold is still representative for that part of the system or whether it needs to be reviewed in light of any system changes; consider adding the threshold rationale into the CCMPs.</i>	TSOs
2	<i>Review the calculation for time to Pmin to reduce nuisance alarming and also revise if necessary the CCMP to improve clarity around transient conditions on the pipeline.</i>	TSOs
3	<i>Investigate any underlying reasons for not notifying the CCO of system events that have the potential to create a critical contingency (as detailed in the Communications protocol) within 15 minutes of the event occurring and remedy as appropriate.</i>	TSOs
4	<i>Increase frequency of data files transmitted to the CCO when the system is in Event mode – and thereby reduce the time lag between the data that the CCO has access to and the data the TSO has access to a minimum during these crucial periods. Procedure 3207704 also needs to be revised to reflect.</i>	TSOs
5	<i>Continue to investigate options for the provision of real-time SCADA access to the CCO</i>	TSOs
6	<i>Review the current contact lists to ensure the contact information is up to date, complete and accurate. Specifically ensure that Ballance and the gas distribution companies are on the lists as appropriate.</i>	TSOs
7	<i>Review the Contact List maintenance process to include a mechanism for ensuring that key contacts that are non-routine users of OATIS are kept up-to-date or maintained.</i>	TSOs

Item	Recommendation	Party
8	<i>Develop and implement an internal routine review process to provide assurance that the 'self-management' approach for the contact information provides (and continues to provide) a list that is complete and accurate.</i>	TSOs
9	<i>The TSO may wish to conduct some internal training on the CC regulations, with particular emphasis on curtailment. The CCO would be happy to provide input.</i>	TSOs
10	<i>Develop a process for notifying participants of a CC Declaration when the CCO declares orally.</i>	TSOs
11	<i>Emphasise the need for prompt and frequent phone contact with the CCO, to be prioritized over Security of Supply alerts, in TSO staff training</i>	TSOs
12	<i>Vector to request IT review of why there was delay in the receipt of CCO e-mails during the exercise, CCO to assist in investigation</i>	TSOs/CCO
13	<i>TSOs and CCO to agree process of verifying e-mail receipt and a contingency plan for e-mail failure</i>	TSOs/CCO
14	<i>Reconsider whether notices should be posted on Vector and Maui OATIS even if only one asset is directly affected. Alternatively consider posting something to redirect people to the alternative website if only one is to be used.</i>	TSOs
15	<i>Vector continues to provide analysis of retailer updates. Some refinement of the commentary provided is required. Also remind Retailers where updates are to be sent.</i>	TSOs
16	<i>Further refinement of the CCO liaison role, including better instructions on what the CCO liaison actually needs to do, and consideration of how handover risks from Duty Officer to CCO liaison can be mitigated.</i>	TSOs
17	<i>Identify any non-return valves and add them to the pipeline schematics provided to the CCO</i>	TSOs
18	<i>TSO process for initial contact with CCO is unnecessarily complex and confusing. This should be simplified.</i>	TSOs
19	<i>Confusion within Core Group over receipt of initial AMS message by multiple staff. Review and correct.</i>	CCO
20	<i>The TSO/CCO should create opportunities to rehearse the processes involved in the early stages of a CC (notifying of potential conditions; potential notifications and CC declarations) prior to the next exercise</i>	TSOs/CCO
21	<i>Amend pro-forma notice process to ensure correct notation on demand curtailment notices for critical processing.</i>	CCO
22	<i>Using the phrase "contact Vector for further information" on public information could be more helpful/specific about where information could be found. CCO to obtain relevant information from Vector and add to public information processes.</i>	CCO
23	<i>The CCO will make Word and Excel documents available to retailers where relevant/helpful except for notices during exercises and events, which will continue to be in e-mail form with attached PDFs.</i>	CCO
24	<i>Is it possible to make the curtailment update smarter to enable retailers to provide information for affected gas gates only? TSOs to consider.</i>	TSOs

Item	Recommendation	Party
25	<p><i>A retailer reported experiencing delay in initiating their processes because of the TSOs re-use of the CCO notice (CC-0016). This had created some confusion that the direction was from the CCO to the TSO. If the notice had been created by the TSO stating that it was a TSO instruction to curtail this confusion could have been avoided. The TSO should generate their own notice. TSOs to consider.</i></p>	TSOs
26	<p><i>One Retailer commented the notices were issued very close together after an initial period of delay at the start of the exercise, whilst another suggested the timing should be tighter with quicker turnaround.</i></p> <p><i>The CCO should re-evaluate the timing of the next CCO exercise from a Retailer perspective.</i></p>	CCO
27	<p><i>One Retailer commented that only a subset of the stakeholder group are included in TSO curtailment instructions. It would be useful to have these extended to operational teams to avoid further internal pass through. This feedback to be supplied to the TSOs for their consideration.</i></p>	TSOs

2. Pre Test Exercise Audit of TSO by CCO

The pre-exercise elements were audited on the 18th June 2015 (6 days prior to the actual exercise date). All items were audited by holding a pre-arranged interview

Test Objective	Ref	Description
The CCMP provides for compliant thresholds that meet the purpose of the regulations.	r25(1)(a)	<p>Check the stated rationale for each threshold and that the rationale is still representative and any system changes have been considered.</p> <p>Check that the SCADA system has appropriate alarms set.</p> <p>Check that the threshold information is reaching the CCO in an effective/timely fashion</p>

Observations:

Thresholds:

Both Vector (v10.1) and MDL (v7.1) CCMP's have been reviewed for minor corrections and re-issued since the last annual exercise. The thresholds listed in the current CCMP's have not changed with respect to previous versions of the CCMP's.

Previous audits recommended a review of the KGTP threshold as it had 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."

Subsequently Vector indicated that there are no longer issues being experienced from an operational perspective with regard to the threshold being reached during normal operational cycles, therefore the threshold remained unchanged.

However, the CCO has observed on a number of occasions that KGTP and other thresholds specified in the CCMP's are breached during what the TSO considers "normal operations". Examples shown to the TSO include:

Threshold Point	Observations
KGTP:	3 Hours to 37.5barg – known to have been breached for short duration periods when flows through KGTP increase due to compressor operation or increase in flow through the Maui by-pass valve.
Westfield:	4 hours to 42barg – known to have been breached for an hour or more during periods of high demand.
Waitangirua:	10 hours to 37barg - known to have been breached for two to three hours during periods of high demand.

Under r48, the CCO must make a determination that there is a critical contingency if the CCO considers that a breach has occurred of a threshold that is specified in a CCMP under r25(1)(a).

When determining whether a breach of a threshold has occurred the CCO must assume that any occurring reduction in pressure will continue at a constant rate, unless the CCO has reasonable grounds for

considering, based on best available information, that a non-constant rate of reduction will provide a significantly more accurate basis for its determination.

On further investigation, and based on analysis of the historical system data that the CCO has access to, 60 unique occurrences of a threshold breach have been identified since August 2014. The table below provides a breakdown of where those breaches have occurred.

Pipeline Sub-System	Location	P _{MIN}	T _{PMIN}	Num. of Breaches
		(barg)	(Hours)	
KGTP South	Waitangirua DP	37.0	10	21
KGTP South	Hastings DP	32.0	5	0
300 Line	KGTP	37.5	3	6
Bay of Plenty	Gisborne DP	32.0	5	0
Bay of Plenty	Taupo DP	32.0	5	0
Bay of Plenty	Tauranga DP	32.0	6	1
Bay of Plenty	Whakatane DP	32.0	5	11
Morrinsville	Cambridge DP	32.0	5	3
Rotowaro	Westfield DP	42.0	4	6
Rotowaro	Whangarei DP	25.0	5	10
Maui	Rotowaro OT	32.0	3	2
Total				60

The TSOs reported the following with regard to this concern:

“All such situations were transitory in nature and did not result in an actual loss, or restriction of, supply.

Pipeline operation is subject to transient conditions, especially at times of peak loads, or when compression is initiated. As CC thresholds are expressed as times to minimum pressures (i.e. gradients), it is possible to see a transient condition that appears to be crossing a threshold for critical contingency, yet poses no actual threat to the security of supply.

The challenge for the TSO is set time to Pmin alarms sensitively enough such that there is sufficient time to activate the CCO early enough to maximize their effectiveness, so as not to result in more curtailment than necessary for a given situation.

This is counterbalanced by the desire to act in the best interests of the industry, by avoiding nuisance alarming and unnecessary activation of the CCO when the operating context is such that there is no material risk to the security of supply.

In light of the CCO’s observations, the TSO will review the calculation for time to Pmin to reduce nuisance alarming and also revise if necessary the CCMP to improve clarity around transient conditions on the pipeline. This should ensure confidence that CC thresholds are not breached and avoid unnecessary declarations by the CCO.”

It is understood by the CCO that on each of these occasions, even though the threshold alarms were breached, there was not actually a situation that warranted the determination and declaration of a critical contingency and the breach occurred as part of the normal operation of the transmission system.

The rationale for each threshold is not documented in the CCMP and was not readily available to the Vector staff interviewed therefore the audit could not clearly establish whether each threshold is still representative for that part of the system or whether it needs to be reviewed in light of any system changes.

The TSO has made similar recommendations to the CCO with regard to this issue.

SCADA Alarms

An action from the last pre-exercise audit was for the TSO to establish appropriate early warning alarms to warn the Operator when the pressure is approaching a threshold breach (i.e. to provide suitable warning prior to the breach occurring).

<i>Item</i>	<i>Recommendation</i>
1	<i>Review alarm set points for the specific CC thresholds being monitored on SCADA and establish appropriate early warning alarms to warn the Operator when the pressure is approaching a threshold breach (i.e. To provide suitable warning prior to the breach occurring).</i>
2	<i>Investigate and implement as appropriate early warning alarms (as per Recommendation 1 above) and threshold breach alarms to warn the operator of a potential and/or actual breach of the CC threshold at 'any other gas gate' (as defined in the MDL and Vector CCMP's) where that gas gate has SCADA telemetry installed.</i>

Extract from 'Exercise Evolution Exercise Report', 24/07/2014

Subsequently, the TSO advised that early warning alarms had been established in SCADA to provide warning that the threshold was two-hours from being breached. The mechanism for this in SCADA is to set the "Low" Alarm at two hours before the threshold (so as to provide advance warning to the CCO as required) and the "Critical Low" at the actual threshold.

The CCO checked the alarm settings and found all but one of the alarm settings to be incorrect. Whilst checking the alarms the TSO took the opportunity to correct them. The as-found and as-left settings are detailed in the following table:

Measurement Point	Threshold		SCADA As-Found		SCADA As-Left	
	Pmin	Hours	Low	Critical Low	Low	Critical Low
Waitangirua	37.0	10	10	8	12	10
Hastings	32.0	5	5	3	7	5
KGTP	37.5	3	5	3	5	3
Gisborne	32.0	5	5	5	7	5
Taupo	32.0	5	5	3	7	5
Tauranga	32.0	6	6	6	8	6
Whakatane	32.0	5	5	3	7	5
Cambridge	32.0	5	5	5	7	5
Westfield	42.0	4	4	2	6	4
Whangarei	25.0	5	5	3	7	5
Rotowaro	32.0	3	3	5	5	3

Communication of Threshold Information

Under r38(1A)(a)(i), the TSO must establish a process to alert the CCO, within 15 minutes, of any event within the transmission system that has the potential to create a critical contingency. The agreed process to comply with this requirement is documented in the Communications Protocol (CCO-021 v3.0).

The CCO has maintained a log of occasions where the TSO has not been able to comply with the requirements of the Protocol. Examples of such occasions over the past few months include:

Date	Record of Communication	Reason
19 March 2015	Notification via 24/7 contact number of Pohokura Production Station trip at 20:20. Platform actually tripped around 19:30. Notification outside of 15 minute requirement.	No reason given.
31 May 2015	Maui Platform tripped on gas detection at 21:00. Gas Control sent notification email at 23:22. No telephone notification via 24/7 contact number. Notification outside of 15 minute requirement.	Operator discretion – line pack levels were adequate.
03 June 2015	Oaonui Production Station tripped at around 14:00hrs for an hour or so. No telephone or email notification. Notification outside of 15 minute requirement.	Operator discretion – line pack levels were adequate.
15 June 2015	Rotowaro CS loss of communications circa 17:00. By around 17:10 the TSO noticed rapidly falling pressures at Papakura East indicating total loss of compression at Rotowaro CS. CCO notified by phone call at 17:39. Notification outside of 15 minute requirement.	Operator busy mobilising field staff and responding to failure.

For some situations above the Operator has used their discretion – for others they have not prioritised the communication.

SCADA Data:

The CCO does not currently have access to the TSO’s SCADA system and is therefore not able to view real-time transmission system data. A Data Transfer protocol has been established whereby the CCO receives SCADA data files via an SFTP link on an hourly basis during normal conditions (and half hourly during an event).

During the three month period prior to Exercise Validation, the CCO has noted that there were two system events (one on 19/03/2015 and the other on 15/04/2015) which had the potential to escalate to a critical contingency event. In responding to both of these events there were some delays with the SCADA data transfer process and some miscommunications between the CCO and TSO due to the two parties looking at slightly different data sets. It has been often observed that even in Event mode, the CCO can be looking at data which is 40 minutes older than data that the TSO is looking at; primarily due to inherent processing and transmission delays embedded in the data transfer protocol. This delay introduces significant inefficiencies for modelling and can create confusion when communicating with the TSO on load curtailment decisions (as the TSO is typically viewing real-time data). Real-time SCADA access would significantly assist the CCO in communicating with the TSO and provide more timely and accurate information to support decision making.

The CCO has also formally requested that more frequent files are sent when the SCADA Data Transfer system is switched to event mode, and understands this is being investigated.

Item	Recommendation
1	<i>Document the rationale for each threshold; confirm that each threshold is still representative for that part of the system or whether it needs to be reviewed in light of any system changes; consider adding the threshold rationale into the CCMPs.</i>
2	<i>Review the calculation for time to Pmin to reduce nuisance alarming and also revise if necessary the CCMP to improve clarity around transient conditions on the pipeline.</i>
3	<i>Investigate any underlying reasons for not notifying the CCO of system events that have the potential to create a critical contingency (as detailed in the Communications protocol) within 15 minutes of the event occurring and remedy as appropriate.</i>
4	<i>Increase frequency of data files transmitted to the CCO when the system is in Event mode – and thereby reduce the time lag between the data that the CCO has access to and the data the TSO has access to a minimum during these crucial periods. Procedure 3207704 also needs to be revised to reflect.</i>
5	<i>Continue to investigate options for the provision of real-time SCADA access to the CCO</i>

Test Objective	Ref	Description
The CCMP contains description of the events that the TSO considers may feasibly result in a breach of the thresholds	r25(1)(b)	Check these are complete, valid and up to date with learnings from previous exercises/events or recent system changes reflected.
Observations: The TSO believes there are circumstances where a breach of the threshold does not need to be notified to the CCO, as they result from transient conditions that are not a long term threat to supply. It is recommended these should be documented in the CCMP (see above).		
Test Objective	Ref	Description
The CCMP contains actions that the TSO may take to remedy any threshold breach	r25(1)(c)	Check these are complete, valid and up to date with learnings from previous exercises/events or recent system changes reflected. These should deal with the events described above.
Observations: The MDL CCMP V7.1 (15/01/2015) and the Vector CCMP V10.1 (17/12/2014) both make reference to the Pipeline Emergency Response Plans and associated Specific Event Guides for the management of pipeline emergencies. A brief review of Emergency Response Plan and some sample Specific Event Guides found that the plans are being actively managed and kept up to date.		
Test Objective	Ref	Description

<p>The contact details in the CCMP are current:</p> <ul style="list-style-type: none"> • Gas storage operators • Gas production operators • Large consumers directly connected • Interconnected parties; retailers and shippers • Gas distributors 	<p>r25(1)(i)</p>	<p>Are these being regularly updated and entered into OATIS accurately?</p>
<p>Observations:</p> <p>Copies of the Vector and MDL contact reports generated in OATIS were obtained for review. The contacts are used by the OATIS system 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.</p> <p><u>MDL OATIS Contact List</u></p> <p>The following observations were made from a review of the MDL OATIS Contact List (which may or may not be material):</p> <ul style="list-style-type: none"> • Some contacts (14 occurrences) don't have any contact information associated with them (ie. phone, cell phone, email) • There are contacts for some people who have left that organisation or the industry (5 occurrences) • Some contacts are repeated (10 occurrences) <p><u>Vector OATIS Contact List</u></p> <p>The following observations were made from a review of the Vector OATIS Contact List (which may or may not be material):</p> <ul style="list-style-type: none"> • It is not clear if there are any contacts recorded for the Gas Storage Facility • There are some contacts recorded for E-Gas (<u>2 occurrences</u>) • Some contacts (<u>3 occurrences</u>) don't have any contact information associated with them (ie. phone, cell phone, email) • Some contacts are repeated (<u>1 occurrence</u>) <p><u>The following observations were made from a review of the Vector OATIS Contact List (which are considered material):</u></p> <ul style="list-style-type: none"> • <i>There is no contact information recorded for Ballance AUP¹</i> • <i>There is no contact information recorded for the Gas Distributors</i> 		

¹ We understand that Ballance AUP obtains its gas from one or more retailers (i.e. unlike other large users it does not ship its own gas). Nevertheless, because it is a large user (as that term is defined in the Regulations) the TSO is required to hold contact details so as to be able to furnish curtailment notices.

It was noted from previous pre-exercise audits ('Exercise Initial' on 25/02/2010 and 'Exercise Tuarua' on 16/03/2011) that:

"Vector remind Ballance AUP to enter their contact details in OATIS"

It was also noted from 'Exercise Evolution' on 25/07/2014 that:

"Discussions with the Vector Control Room Manager and Vector Senior Manager Transmission Services did not readily reveal any process for ensuring that non-regular users of OATIS keep their contact details up to date in OATIS. Also, it is possible that some key contacts (eg. Ballance AUP) may be routinely missed by the current process (given the findings of previous audits)." Subsequently, the following recommendations were made in the Exercise report

Item	Recommendation
4	<i>Review the current contact lists to ensure the contact information is up to date, complete and accurate.</i>
5	<i>Review the Contact List maintenance process to include a mechanism for ensuring that key contacts that are non-routine users of OATIS are kept up-to- date or maintained.</i>

Extract from 'Exercise Evolution Exercise Report', 24/07/2014

During this pre-exercise audit for 'Exercise Validation', there was no clear acknowledgement by the TSO, that the current situation regarding the management of the contact list for issuing critical contingency notices is not adequate. The TSO considers that it is the responsibility of the Retailers and Large Consumers to maintain the contact information on OATIS.

The CCO is concerned that the current process for the management of the contact lists has resulted in gaps and inaccuracies that have not been rectified over a number of years and this situation will adversely affect the effectiveness and efficiency of communication of critical contingency and curtailment instructions during a critical contingency event.

Therefore the recommendations from the previous exercise(s) are re-iterated below.

Item	Recommendation
6	<i>Review the current contact lists to ensure the contact information is up to date, complete and accurate. Specifically ensure that Ballance and the gas distribution companies are on the lists as appropriate.</i>
7	<i>Review the Contact List maintenance process to include a mechanism for ensuring that key contacts that are non-routine users of OATIS are kept up-to- date or maintained.</i>
8	<i>Develop and implement an internal routine review process to provide assurance that the 'self-management' approach for the contact information provides (and continues to provide) a list that is complete and accurate.</i>

3. TSO Test Exercise Objectives

Test Objective	Ref	Description						
The CCMP has a process for demand curtailment and restoration consistent with the purpose of the regs	R25(1)(d)	Observe the processes during the exercise and note their effectiveness						
<p>Observations:</p> <p>Curtailment, revised curtailment and restoration notices were all issued successfully and in accordance with CCMPs. A summary of the notices issued by the CCO to the TSOs and by the TSOs to relevant parties are included in Appendix C.</p> <p>One observer noted the discussion of 2nd interject by the TSO team showed some lack of understanding of the CC bands and the modelling of survival time was basic.</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Recommendation</th> <th>Party</th> </tr> </thead> <tbody> <tr> <td>9</td> <td><i>The TSO may wish to conduct some internal training on the CC regulations, with particular emphasis on curtailment. The CCO would be happy to provide input.</i></td> <td>TSO/CCO</td> </tr> </tbody> </table>			Item	Recommendation	Party	9	<i>The TSO may wish to conduct some internal training on the CC regulations, with particular emphasis on curtailment. The CCO would be happy to provide input.</i>	TSO/CCO
Item	Recommendation	Party						
9	<i>The TSO may wish to conduct some internal training on the CC regulations, with particular emphasis on curtailment. The CCO would be happy to provide input.</i>	TSO/CCO						
Test Objective	Ref	Description						
The CCMP has a communications plan describing how the TSO will communicate to and from the participants and within what timeframes	R25(1)(e)	Monitor the communications and check for clarity and timeliness						
<p>Observations:</p> <p>Section 3 of the Vector CCMP details the communication plan.</p> <p>Vector procedure 3207704 “<i>Critical Contingency Response Actions</i>” was utilised during the exercise to facilitate correct communications, with status update information contained within the <i>Security of Supply Update</i> form. This procedure, form and the communication process used was consistent with that described in the CCMPs.</p> <p>Additionally, the security of supply updates enabled Vector to provide information to the CCO such that they could put an “Asset Owner Public Information Report” notice on their website consistent with section (2) of schedule 5 of the Regulations.</p> <p>At 8:58 the CCO orally declared a CC during a phone call with the TSO. The TSO team needed some prompting by the exercise observer about what was required in regard to the oral notification as there was some confusion. After further explanation, in addition to the interject, the TSO team began populating a Security of Supply alert. This was sent out containing an incorrect reference to the 800 line. The Duty Officer then asked a Scheduler “to prepare a verbal notice under reg 23”, but they were not clear what was being asked of them. After further prompting by the observer the task was understood. The team responded well to the request but as they had no process to achieve the task it was not completed in time. The Exercise Observer called an end to the task and the CCO informed the TSO that he would be sending a declaration notice for review.</p>								

Security of Supply update prepared by the TSO team gave the staff member's cell number instead of the Duty Officer landline number. This risks inconsistencies if/when Duty Officer hands over to CCO liaison.

A draft declaration notice was forwarded to all Vector rather than being confined to the CCO with comment that it was correct and ready for issue. It contained an error about the 800 line lifted from the Security of Supply sent by the TSO to the CCO.

A draft declaration notice (which contained error re 800 pipeline instead of 500 pipeline being affected lifted from a Security of Supply alert) was not checked and the draft was forwarded within Vector as if it were final. It was then posted on OATIS as if it was the finished notice. This is considered a symptom of using the exercise as a training opportunity for a new CCO liaison person so no specific recommendation arises, although this does reinforce issues that can arise when transferring from Duty Officer to CCO Liaison roles. Once the error was identified it was resolved quickly.

A security of supply alert was sent from Gas Control rather than the Duty Officer, which meant the CCO reply did not go to the Duty Officer for review. This created some delay. A distribution list error on the Security of Supply alert led to the report not being sent to the Duty Officer. This was corrected during the exercise so no action arises.

Significant email delays were experienced. CCO emails arrival at Vector were often significantly delayed and resulted in lost time and the need for constant checking that messages had been received/re-forwarding of already sent messages. Test e-mails were sent by the CCO to alternative e-mail addresses which arrived without delay which suggests the problem was at the receiving end. It is suggested Vector I.T. check what this problem may be, but the CCO is happy to assist with any such investigation. Also need to assess what can be done if this occurs during an actual CC e.g. use of read receipts.

From about 11:00am onwards it was noticeable how things began to move smoothly between CCO and TSO. CCO/TSO conversations were well constructed and included checking of understanding.

Observers were impressed with quick way CCO notices were published by TSO. One raised whether notices should be replicated on both sides of OATIS not just affected side, or if not should people be re-directed to the other website when only one is being used?

Overall the 15 minutes for the TSO to alert the CCO and the CCO 30 minutes to declare are very difficult to comply with. It was largely achieved in the context of this exercise but this is a rather contrived circumstance.

Item	Recommendation	Party
10	<i>Develop a process for notifying participants of a CC Declaration when the CCO declares orally.</i>	TSOs
11	<i>Emphasise the need for prompt and frequent phone contact with the CCO, to be prioritized over Security of Supply alerts, in TSO staff training</i>	TSOs
12	<i>Vector to request IT review of why there was delay in the receipt of CCO e-mails during the exercise, CCO to assist in investigation</i>	TSOs/CCO
13	<i>TSOs and CCO to agree process of verifying e-mail receipt and a contingency plan for e-mail failure</i>	TSOs/CCO

14	<i>Reconsider whether notices should be posted on Vector and Maui OATIS even if only one asset is directly affected. Alternatively consider posting something to re-direct people to the alternative website if only one is to be used.</i>	TSOs
-----------	---	------

Test Objective	Ref	Description
The CCMP contains the contact details of suitably qualified TSO employees responsible for giving communications and directions under the CCMP and comms plans	R25(1)(f)	Monitor how roles are allocated within the exercise and how comms and directions are given

Observations:

The CCMPs contain appropriate and up to date contact details. These were used to establish initial contact between Vector and the CCO at the start of the exercise.

Observers noted that the TSO had used the opportunity of the exercise as a training opportunity for a new CCO liaison, which is to be commended. Therefore, this needs to be borne in mind when making observations, particularly to issues that arose when the TSO Duty Officer first handed over to the new CCO liaison.

However, it was observed that some more thought may need to be given to the roles of the Duty Officer and CCO liaison in respect of:

- In an event the Duty Officer would need a desk to operate from, so this would not be available for the CCO liaison
- A CCO liaison that is not co-located with the rest of the TSO team may not be workable
- Duty Officer, CCO liaison and Scheduler didn't always seem to be on the same page. This seemed to be exacerbated by the Scheduler being in a different room.
- Value in CCO liaison once declaration has been made, but early communications need to be fast and uncluttered so should be direct between CCO and Duty Officer
- Risks around the transition from the Duty Officer to the CCO liaison role need to be managed

The compliance role for managing Retailer updates was filled by a Vector Commercial representative remotely. Vector was collating and analyzing retailer updates then passing the analysis on to the CCO, but they made no comment as to why compliance for band 3 and 4 went from 42% at midday to just 50% at 1pm. Where there are low levels of compliance there should be comment about why.

It was also noted that compliance update summaries were arriving 45-50 minutes after the deadline for retailer submission. This leaves a question for the CCO of whether the wait for the analysis is worth it, or if they would prefer to receive retailer updates directly without analysis. The CCO however found this generally a process improvement over the receipt of multiple retailer updates directly. With a little refinement of the addition of some more useful commentary this was their preferred approach.

Item	Recommendation	Party
15	<i>Vector continues to provide analysis of retailer updates. Some refinement of appropriate commentary required. Also remind Retailers where updates are to be sent.</i>	Vector TSO

16	Further refinement of the CCO liaison role, including better instructions on what the CCO liaison actually needs to do, and thought about how handover risks from Duty Officer to CCO liaison can be mitigated.	TSOs
Test Objective		
The CCMP details circumstances in which the TSO may consider restoration should be directed in an order different from the regs	R25(1)(g)	Observe the consideration given by the TSO to restoration
<p>Observations:</p> <p>Both CCMPs detail the steps for considering alternative restoration arrangements. This was not specifically tested through the exercise, as the nature of the scenario was such that all bands had their demand restored at the same time.</p>		
Test Objective		
The CCMP has a process to determine the contingency imbalances	R25(1)(h)	Are these processes up to date and have they been verified recently? Have recent system changes and MPOC/VTC changes been incorporated?
<p>Observations:</p> <p>Appendix 8 of the Vector CCMP contains a detailed 25 step process for contingency imbalance calculation methodology. This section also describes how Vector will properly integrate the Contingency Imbalance regime prescribed in the Regulations with Vector's business-as-usual regime under section 8 of the VTC.</p> <p>Section 5 of the MDL CCMP contains a detailed 12 step process for contingency imbalance calculation methodology. The CCMP refers to the document "Management of the interrelationship between the MPOC and the Gas Governance (Critical Contingency Management) Regulations 2008". This document details how MPOC business as usual processes will work during a critical contingency.</p> <p>This scenario was a regional event so the contingency imbalance process was not specifically tested.</p>		
Test Objective		
The CCMP provides effective mechanisms for making information available to the CCO	R25(1)(j) R38 Comms Protocol	A detailed check needs to be made against each item of R38 and note made of the ease, accuracy and timeliness of the information that is reaching the CCO
<p>Observations:</p> <p>The CCMPs address communications with the CCO. The document defers to the CCO Communications Plan for the detail. Exercise Validation was carried out in a manner consistent with the current CCO Communications Plan.</p> <p>Detailed communication was also managed through the CCO's Communications Protocol and the Vector procedure 3207704 "Critical Contingency Response Actions", with status update information contained within the <i>Security of Supply Update</i> form. This procedure, form and the communication process used was consistent with that described in the CCMPs.</p>		

SCADA information was switched to event mode, but this resulted in the CCO at the crucial first stages of the event only having data that was up to 86 minutes old – i.e. last normal update was 8:00 (received by CCO at 8:26) and then first event update was at 9.15 (received by CCO at 9:26). Ideally the 9:00 am data should still have been sent, followed by the 9:15 data and the data should have been received closer to the time of the data content. Also, Procedure 3207704 does not refer to this step and should be revised.

SCADA Data Files (from SCADA file log)

Nominal Time (Data Time)	File Type	Actual Time Received	Comments
8:00	Normal	8:26:56	27 minute delay
		8:58:00	Event Mode Requested
9:15	Event	9:26:56	28 minute delay
9:45	Event	9:56:56	11 minute delay
"	"	"	"
18:45	Event	18:56:57	11 minute delay
19:00	Normal	19:46:57	47 minute delay
20:00	Normal	20:26:57	27 minute delay

This issue has often been observed when switching between normal mode (hourly files) and event mode (half hourly files). In the above example the extended delay is observed when switching from event mode to normal mode at the end of the exercise but can occur when switching from normal mode to event mode.

The frequency of the files received during abnormal and potential events (i.e. in event mode) is not considered sufficient to provide up to date accurate system information for the CCO to efficiently track the situation, communicate/liaise with the TSO, model the scenarios and efficiently make decisions (refer related comments made in the Pre-Exercise Audit Report).

Discussion on the 2nd interject gave rise to discussion by the TSO team of line pack downstream of Kawerau being isolated from upstream gas and not available for line pack. This raises the issue of whether there are other non-return valves across the system. The CCO needs to have these identified and added to the pipeline schematics.

Observers noted clear direction from the TSO that repairs are complete and the section re-pressurised.

Item	Recommendation	Party
4	Review the file transfer protocols to ensure there aren't significant data gaps between normal and event mode and that the files are received by the CCO as close as possible to the time of the data content. Procedure 3207704 also needs to be revised to reflect.	TSOs
5	Continue to pursue the provision of live SCADA data as requested under the regulations.	TSOs

17	<i>Identify any non-return valves and add them to the pipeline schematics provided to the CCO</i>	TSOs
Test Objective	Ref	Description
The protocol for informing the CCO of potential CC conditions	R25(1)(j) R38(1A)(a)(i)	CCO to be alerted within 15 minutes
<p>Observations:</p> <p>The CCMPs address pre-critical contingency and set out the conditions under which Vector will notify the CCO of an event it believes could or would result in a Critical Contingency Scenario. It also states that Vector will communicate with the CCO in accordance with the CCO Communications Plan. Exercise Validation was carried out in a manner consistent with the current CCMP and the CCO Communications Plan, including the stringent timeframes on communicating the event.</p> <p>On receipt of the 1st interject the TSO initially focused on the failure and the likely field response, there was a lack of a clear understanding about the impact on pressure thresholds.</p> <p>The CCO was paged by Gas Control at 8.49. When the CCO rang the number provided in the pager message there was no answer and he had to leave a message. He waited a few minutes and rang it again, and there was a response. This was because the Duty Officer was answering another call.</p> <p>The AMS message left by gas control for the CCO was long and muddled – the one-page brief didn't help him. This process needs to be simplified.</p> <p>The AMS message was responded to by the CCO promptly, but also by other Core Group staff who should not have received the alert message. The process of calling the CCO was confused with the message being forwarded to the Core Group Pipeline Services out of hour's number. This needs to be addressed.</p>		
Item	Recommendation	Party
18	<i>TSO process for initial contact with CCO are unnecessarily complex and confusing. These should be simplified.</i>	TSOs
19	<i>Confusion within Core Group over receipt of initial AMS message by multiple staff. Review and correct.</i>	CCO
20	<i>The TSO/CCO should create opportunities to rehearse the processes involved in the early stages of a CC (notifying of potential conditions; potential notifications and CC declarations) prior to the next exercise</i>	TSOs/CCO
Test Objective	Ref	Description
The CCMPs are consistent with the MPOC, VTC	R25(2)	Have the CCMPs been reviewed for recent changes to MPOC/VTC?
<p>Observations:</p> <p>Appendix 8 of the Vector CCMP describes how Vector will properly integrate the Contingency Imbalance regime prescribed in the Regulations with Vector's business-as-usual regime under section 8 of the VTC. No inconsistencies between the Vector CCMP and VTC were picked up as a result of this exercise.</p>		

Section 5.3 of the MDL CCMP refers to the document “Management of the interrelationship between the MPOC and the Gas Governance (Critical Contingency Management) Regulations 2008”. This document details how MPOC business as usual processes will work during a critical contingency. No inconsistencies between the CCMP and MPOC were picked up as a result of this exercise.

4. Summary of TSO report Observations and Recommendations

Extracted from Vector TSO Report

Overall, the Vector CCMP should be effective in all stages of a Critical Contingency event. However, the exercise highlighted that although the TSO and CCO processes were effective, they could be improved in the following areas:

Note, action parties below are as follows; CCO = Critical Contingency Operator (Core Group Ltd), TSO = Transmission System Owner (Vector Ltd).

Time Ref	Ref	Observation / Comment	Recommendation	Action By:	Due Date:
Pre-exercise	V2015/1	<p>During the exercise pre-audit, the CCO cited examples of the Vector CCMP Section 5.2 pipeline time to Pmin thresholds being breached according to SCADA data they had.</p> <p>Table 1 is written to be consistent with Schedule 1 of the CCM Regulations.</p> <p>All such situations were transitory in nature and did not result in an actual loss or restriction of supply.</p> <p>Pipeline operation is subject to transient conditions, especially at times of peak loads, or when compression is initiated.</p> <p>As CC thresholds are expressed as times to minimum pressures (i.e. gradients), it is possible to see a transient condition that appears to be crossing a threshold for critical contingency, yet poses no threat to the security of supply.</p>	<p>The TSO will review the calculation for time to Pmin to reduce nuisance alarming and also revise if necessary the CCMP to improve clarity around transient conditions on the pipeline. This should ensure confidence that CC thresholds are not breached and avoid unnecessary declarations by the CCO.</p>	TSO	31/03/2016
Pre-exercise	V2015/2	<p>During the exercise pre-audit, the CCO found it difficult to review the contact details held in OATIS and receive confirmation that they were up to date.</p>	<p>TSO to review how these contact details are stored and checked so that they are readily visible for the next pre-exercise audit.</p> <p>TSO to institute quarterly checks of these contact details, with appropriate follow up if required.</p>	TSO	30/09/2015

Time Ref	Ref	Observation / Comment	Recommendation	Action By:	Due Date:
08:57	V2015/3	The process of calling the CCO was confused, with the message being forwarded to Core Group Pipeline Services out of hours call out number.	CCO to check their 0800 number Call Answer service to see if there are any call-routing issues that need resolving.	CCO	30/09/2015
08:57	V2015/4	The Gas Controller also struggled with leaving a message.	Some of confusion with messaging resulted from use of CCO Call Answer Service Procedure script. This should be simplified and shortened for clarity and speed.	TSO	31/08/2015
08:57	V2015/5	The Gas Controller also struggled with taking the step to call an alternate number and deciding which the right one should be.	CCO-021 (CCO-TSO Communications Protocol) does set out alternative numbers in order of preference if there are issues with the Call Answer Service, yet the Gas Controller remained confused. Review the Protocol and procedure 3207704 "Critical Contingency Response Actions" and revise as necessary to improve clarity and consistent response.	TSO & CCO jointly	30/09/2015
09:11	V2015/6	Distribution list error – report not sent to Duty Officer Log in ID. The Gas Controllers have an outlook distribution list "Duty Officers". This distribution list sends emails to staff members currently approved as duty officers.	Add generic log on ID " duty.officer@vector.co.nz " to Gas Controllers' distribution list.	TSO	Completed 24/06/15
09:06	V2015/7	Verbal instruction to declare Critical Contingency was well handled by Vector Nominations Team, but process for them could be improved by having an OATIS compatible standard template sent through.	Place OATIS-compatible word template for Verbal CCO instruction on Duty Officer Workstation Windows Desktop.	TSO	30/09/2015
09:20	V2015/8	CCO did not receive the next SCADA update for a considerable time. After this updates were coming through every 30 minutes as expected.	Resolve software issue that is creating delay, so that files following through on 30 minute basis from time that previous file was sent.	TSO	31/08/2015
09:20	V2015/9	Procedure 3207704 does not refer to switching SCADA to Event mode and should be revised.	Revise procedure 3207704 to included switching SCADA to event mode at the appropriate points	TSO	30/09/2015

Time Ref	Ref	Observation / Comment	Recommendation	Action By:	Due Date:
09:44	V2015/10	<p>Declaration unchecked – CCO liaison officer relied on direction from staff member to forward notice through.</p> <p>Subsequent feedback on the CCO Liaison training revealed that whilst the training covered the fundamentals, such as the purposes, links to regulations and overarching processes, it did not cover the required activities and basic transactional tasks.</p>	There should be simple clear instructions on what the CCO Liaison needs to do, beyond that they can refer to a presentation set or the CCMPs. These should be included in a simple “quick-sheet” than can be used during an event. Update the training accordingly and issue the quick-sheet.	TSO	30/09/2015
10:22	V2015/11	<p>Significant delays in emails and other IT problems were experienced throughout the day. In one case it took an email from the CCO 34 minutes to reach the CCO Liaison Officer.</p>	The TSO and CCO should explore contingency steps for effective communication in the event of IT issues, revising processes and procedures where necessary. This is alluded to in section 3.8 of the Vector CCMP, but more detail is required.	TSO & CCO jointly	31/03/2016
11:02	V2015/12	<p>It was noticeable that from the stage of demand curtailment forward, the management of the emergency ran very smoothly between the CCO and the TSO.</p> <p>Most of the challenges appear to be with the initiation of an event.</p>	The TSO and CCO should explore options for rehearsing the initiation of Potential / Critical Contingency Events over the coming year prior to the next formal exercise, this should ensure that recommendations 3 to 9 in this report have been implemented and are effective. It is anticipated that such rehearsals would take less than an hour.	TSO & CCO jointly	31/03/2016

Extracted from MDL TSO Report

Overall, the MDL CCMP was effective in all stages of a Critical Contingency event. However, the exercise highlighted that although the TO and CCO processes were effective, they could be improved in the following areas:

Note, action parties below are as follows; CCO =Critical Contingency Operator (Core Group Ltd), CO = Maui Commercial Operator (MDL Ltd), TO = Technical Operator (Vector Gas Ltd).

Time Ref	Ref	Observation / Comment	Recommendation	Action By:	Due Date:
Pre-exercise	M2015/1	<p>During the exercise pre-audit, the CCO cited examples of the Vector CCMP Section 5.2 pipeline time to Pmin thresholds being breached according to SCADA data they had.</p> <p>Table 1 is written to be consistent with Schedule 1 of the CCM Regulations.</p> <p>All such situations were transitory in nature and did not result in an actual loss or restriction of supply.</p> <p>Pipeline operation is subject to transient conditions, especially at times of peak loads, or when compression is initiated.</p> <p>As CC thresholds are expressed as times to minimum pressures (i.e. gradients), it is possible to see a transient condition that appears to be crossing a threshold for critical contingency, yet poses no threat to the security of supply.</p>	<p>The TO will review the calculation for time to Pmin to reduce nuisance alarming and also revise if necessary the CCMP to improve clarity around transient conditions on the pipeline. This should ensure confidence that CC thresholds are not breached and avoid unnecessary declarations by the CCO.</p>	TO	31/03/2016
Pre-exercise	M2015/2	<p>During the exercise pre-audit, the CCO found it difficult to review the contact details held in OATIS and receive confirmation that they were up to date.</p>	<p>TO to review how these contact details are stored and checked so that they are readily visible for the next pre-exercise audit.</p> <p>TO to institute quarterly checks of these contact details, with appropriate follow up if required.</p>	TO	30/09/2015

Time Ref	Ref	Observation / Comment	Recommendation	Action By:	Due Date:
10:22	M2015/3	Significant delays in emails and other IT problems were experienced throughout the day. In one case it took an email from the CCO 34 minutes to reach the CCO Liaison Officer.	The TO and CCO should explore contingency steps for effective communication in the event of IT issues, revising processes and procedures where necessary. This is alluded to in section 3.9 of the MDL CCMP, but more detail is required.	TO & CCO jointly	31/03/2016

5. CCO Test Exercise Objectives

Test Objective	Ref	Description
CCO Process for determining, declaring and notifying critical contingency	R48 – 50	Observe how the CCO makes these decisions and acts accordingly
<p>Observations:</p> <p>CCO made an oral declaration at 8:58 and instructed Vector to prepare and issue the declaration within half an hour. The instructions sounded clear and the CCO requested Vector to read it back to him. This was done to see if the TSO could manage the issue of an oral notice from the CCO where they do not receive a written notice from the CCO. The TSO was not able to achieve this task, so the Exercise Controller cancelled the task and instead the CCO issued a written notice to the TSO for them to replicate. (See recommendation 10 and the associated observations in the TSO section.)</p>		
Test Objective	Ref	Description
CCO process for determining and declaring regional status	R52A Industry Guidance	Observe the process for determining regional status using the industry guidance and for notifying the determination
<p>Observations:</p> <p>Regional determination was notified as a part of the declaration notice.</p>		
Test Objective	Ref	Description
CCO processes for issuing notices during a CC event	R51,52, 53, 59	Observe the drafting and issuing of notices and the effectiveness of the communications and information guides
<p>Observations:</p> <p>All notices were sent to the correct stakeholders and contained the correct information and were given within required timeframes.</p> <p>There were issues with e-mail from the CCO to the TSO, already noted above with associated recommendation.</p> <p>Observers noted there were good discussions between the CCO and TSO.</p> <p>There was an error on the initial demand curtailment notice re band 4 Critical Processing “not affected”. Should be “follow approved shutdown profile” or similar.</p>		
Item	Recommendation	Party
21	Amend pro-forma notice process to ensure correct notation on demand curtailment notices for critical processing.	CCO

Test Objective	Ref	Description						
CCO processes for demand curtailment, exploration of alternative supply and restoration	R53	Observe the effectiveness of the CCO decision making processes for achieving system stability						
<p>Observations:</p> <p>Observers noted there was a well-reasoned approach to determining proposed curtailment, bolstered by checking with the TSO and obtaining clear agreement.</p> <p>Exploration of alternative supply wasn't relevant to this regional scenario.</p>								
Test Objective	Ref	Description						
CCO process for determining and notifying termination	R60	Observe how the CCO makes these decisions and acts accordingly						
<p>Observations:</p> <p>These were observed as being effective</p>								
Test Objective	Ref	Description						
CCO modelling of the system operates effectively and gives consistent results	R53 R38	The curtailment and restoration decisions are well supported by a robust modelling tool						
<p>Observations:</p> <p>These were observed as being effective</p>								
Test Objective	Ref	Description						
CCO publishes information	Sch 5 R54A	Observe the implementation of the new information requirements, including the information from the asset owner						
<p>Observations:</p> <p>It was observed that using the phrase "contact Vector for further information" could be improved by providing contact details.</p> <table border="1" data-bbox="203 1581 1317 1776"> <thead> <tr> <th>Item</th> <th>Recommendation</th> <th>Party</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>Using the phrase "contact Vector for further information" on public information could be more helpful/specific about where information could be found. CCO to obtain relevant information from Vector and add to public information processes.</td> <td>CCO</td> </tr> </tbody> </table>			Item	Recommendation	Party	22	Using the phrase "contact Vector for further information" on public information could be more helpful/specific about where information could be found. CCO to obtain relevant information from Vector and add to public information processes.	CCO
Item	Recommendation	Party						
22	Using the phrase "contact Vector for further information" on public information could be more helpful/specific about where information could be found. CCO to obtain relevant information from Vector and add to public information processes.	CCO						
Test Objective	Ref	Description						
CCO performs to required standard	SPACCO sch 2	Test the CCO against the Schedule 2 performance standards and target/measures for during and after a CC event for determining;						

		declaring; decision making; communication and termination
<p>Observations:</p> <p>The observers concluded that the CCO had performed to the standard</p>		

6. Retailers and Consumers Test Exercise Objectives

All 9 Retailer’s participated in the exercise. Most at ‘Facilitation’ level but Contact chose ‘partial’ and Vector Gas Trading “Full” participation.

8 out of 9 Retailer’s submitted self-assessment forms (see appendix F). The Novagas self-assessment form was outstanding at the time of this report. This was the same for the 2014 exercise.

There was minimal interaction with large consumers during this exercise as they were not directly affected by the scenario.

Vector as TSO collated the Retailer updates. They received updates from all Retailers except for Mighty River Power. They tried to chase this up with them during the exercise but received no response.

Generally the Retailers reported that they had found the exercise useful and several have reported changes to their processes arising from the exercise. A number of suggestions have also been made.

Test Objective	Ref	Description
Ensure the Retailer curtailment plan contains 24/7 contact information for each consumer installation	R43	Retailers’ self-assessment reports
<p>Observations:</p> <p>All Retailer self-assessment forms received reported processes for holding emergency consumer contact details, with the exception of Pulse who only have domestic customers</p>		
Test Objective	Ref	Description
Ensure the Retailer has up to date curtailment band information for each consumer	R43	Retailers’ self-assessment reports
<p>Observations:</p> <p>Retailers reported their consumers by band in both their self-assessment forms and in their updates during the exercise.</p>		
Test Objective	Ref	Description
Confirm each Retailer has a process for keeping contact and curtailment band information up to date	R43	Retailers’ self-assessment reports
<p>Observations:</p> <p>All of the self-assessment forms reported processes for keeping contacts and bands up to date.</p>		

Test Objective	Ref	Description
Retailers and large consumers to provide regular updates to TSO	R55	Observe the frequency and quality of updates to the TSO during the exercise
<p>Observations:</p> <p>The Vector analyst collating the retailer data said there remained some confusion from a number of retailers about where the updates should be sent (i.e. some sent this direct to the CCO). Also he had difficulty getting hold of MRP during the exercise.</p> <p>As observed in the TSO section the TSO queried whether their co-ordination of Retailer updates added value for the CCO, but the CCO confirmed that this was valuable.</p> <p>There was generally a good level of Retailer participation during the exercise. There seems significantly less comment this year about the update template, which suggests the changes made have been appreciated and that the Retailers are becoming more comfortable with the process.</p>		
Test Objective	Ref	Description
Retailers to give urgent notice to their consumers affected by a CC direction	R56	Retailers' self-assessment reports
<p>Observations:</p> <p>The Retailers were acting in a facilitation capacity, but all reported processes for making customer contact.</p> <p>The exercise specifically tested the ability of Retailers to produce a media appeal. This was promptly supplied by Genesis on behalf of the Retailers signed up to the Retailers Communications Protocol. Observers noted that this was pleasing to see.</p> <p>Greymouth has only a minimal number of domestic consumers and contacts them each directly rather than through media appeals.</p> <p>Novagas reported they had insufficient resource during the exercise to be able to produce a media statement.</p> <p>Vector Gas Trading reported on their self-assessment form that their media appeal would be managed through Vector's public affairs team in consultation with the gas trading team.</p>		

The following comments and suggestions were provided by the Retailers:

- Could the CCO provide Word/Excel formats for communications as well as PDFs? This makes working with the documents easier (eg lifting out affected gas gates, retailer self-assessment forms)

This has been widely discussed and considered previously. On the balance of considerations the CCO will continue to provide an e-mail version of the notice and a PDF copy of the notice. The PDF file type still facilitates copy and paste functionality while ensuring the integrity of the notice.

Outside of event notices (for example self-assessment forms) the CCO will ensure Word or Excel versions of documents are provided where applicable/helpful to the recipients.

- Is it possible to make the curtailment update smarter to enable retailers to provide information for affected gas gates only?

This feedback will be provided to the TSOs for them to consider. It may be appropriate for the TSOs to invite Retailers to supply specific suggestions.

- A retailer reported experiencing delay in initiating their processes because of the TSOs re-use of the CCO notice (CC-0016). This had created some confusion that the direction was from the CCO to the TSO. If the notice had been created by the TSO stating that it was a TSO instruction to curtail this confusion could have been avoided. The TSO should generate their own notice.

It is the current agreed process that the TSOs use the CCO notice to forward on to the stakeholders, primarily as this speeds up this process where speed is of the essence. However this feedback will be provided back to the TSOs.

- One Retailer commented the notices were issued very close together after an initial period of delay at the start of the exercise, whilst another suggested the timing should be tighter with quicker turnaround.

The CCO should re-evaluate the timing of the next CCO exercise from a Retailer perspective.

- One Retailer commented that only a subset of the stakeholder group are included in TSO curtailment instructions. It would be useful to have these extended to operational teams to avoid further internal pass through.

It is understood from the TSOs that they view it as the retailers' responsibility to self-manage their contact lists via the OATIS contact list self-service system. Nonetheless this feedback will be provided to the TSOs for their consideration.

Item	Recommendation	Party
23	<i>The CCO will make Word and Excel documents available to retailers where relevant/helpful except for notices during exercises and events, which will continue to be in e-mail form with attached PDFs.</i>	CCO
24	<i>Is it possible to make the curtailment update smarter to enable retailers to provide information for affected gas gates only? TSOs to consider.</i>	TSOs
25	<i>A retailer reported experiencing delay in initiating their processes because of the TSOs re-use of the CCO notice (CC-0016). This had created some confusion that the direction was from the CCO to the TSO. If the notice had been created by the TSO stating that it was a TSO instruction to curtail this confusion could have been avoided. The TSO should generate their own notice. TSOs to consider.</i>	TSOs
26	<i>One Retailer commented the notices were issued very close together after an initial period of delay at the start of the exercise, whilst another suggested the timing should be tighter with quicker turnaround.</i>	CCO

	<i>The CCO should re-evaluate the timing of the next CCO exercise from a Retailer perspective.</i>	
27	<i>One Retailer commented that only a subset of the stakeholder group are included in TSO curtailment instructions. It would be useful to have these extended to operational teams to avoid further internal pass through. This feedback to be supplied to the TSOs for their consideration.</i>	TSOs

7. Asset Owners Test Exercise Objectives

Test Objective	Ref	Description
The owner of the damaged or failed component publishes the required information	R54A Schedule 5 (2)	If band 3 is curtailed, asset owner publishes information required by sched 5 (2)
<p>Observations:</p> <p>Vector was the affected asset owner in this exercise and worked with their corporate media team to prepare public information. They successfully supplied the CCO with the information necessary for the CCO to publish its public statements, but chose not to publish this as a part of this exercise.</p> <p>During an actual event Vector would publish this information at:</p> <ol style="list-style-type: none"> 1. Vector's media release news section on the front of the Vector website 2. Public OATIS site under critical notifications. 		

Appendix A – Exercise Interjects

Exercise Validation Exercise Commences. 08:30am

1. CCO website message on Current CC Events

Date 24th June 2015 Time: 08:30 Situation: Exercise Validation has commenced

2. E-mail – to all CCO email addresses

Subject: Exercise Validation – CCO exercise has commenced

The exercise has now commenced. All verbal and written exercise communications will be prefixed with "Exercise Validation".

3. Txt – to all CCO txt addresses

Exercise Validation has now commenced. All exercise communications will be prefixed with "Exercise Validation".

Exercise Validation TSO Interject #1 08:35am

Phone call to Gas Control:

This is the 1st exercise interject from Exercise Control.

My name is Jo Clumsy. I am a contractor doing some ground works with a 32 tonne bulldozer in a paddock at 2974 Arapuni Rd, (near Arapuni Dam). One of my workers has struck the gas pipeline on the property. There is a large gas cloud visible and a roaring sound from the escaping gas.

From SCADA, Gas Control can see:

- Noticeable increase in flow through Pokuru Compressor Station
- Falling pressure at Lichfield Meter Station.
- Critical Contingency Pressure Threshold at Tauranga is showing 6 hours to 32 barg

Field crews have been mobilised to site and an update on system conditions will be available at 10.00am

If there are any queries relating to this interject please refer them to the CCO Observer at Bell Block

Assumptions:

TSO will respond in accordance with Communications Protocol using information above.

TSO to assume that the CCO has not received this interject and can only act on information provided by the TSO.

Any questions or clarifications regarding the physical field response should be directed to the CCO Observer at Bell Block.

Exercise Validation. TSO Interject #2 10:00am
Phone call to Gas Control

This is the 2nd Interject from Exercise Control.

The TSO is now to assume the following:

- The low pressure trips on the Arapuni West and Arapuni East Main Line Valves have activated.
- The damaged section of pipeline has de-pressurised and the site has been made safe.
- Pressure downstream of the Arapuni East Main Line Valve at Lichfield Delivery Point is 60barg
- Repair crews have been mobilised and return to service time is expected to be 36 - 48 hours.
- An update on progress with repairs and system conditions will be available at 11:00am

If there are any queries relating to this interject please refer them to the CCO Observer at Bell Block

Background information:

- The contractor had requested a permit for the work but commenced before Vector staff had visited site.
- There are no injuries.
- Emergency services responded to site.
- Weather conditions are fine and site access unrestricted.
- There are local reporters on-site.

Exercise Validation. TSO Interject #3 11:00am
Phone call to Gas Control

This is the 3rd Interject from Exercise Control.

A new section of pipeline has been installed to replace the damaged section. However, one of the tie-in welds has failed its inspection and will have to be repaired.

Weather conditions on-site have also deteriorated and it is now expected that site repairs will be delayed by a further 24-48 hours. (The expected total time to repair is therefore 3 to 4 days from failure)

An update on site repairs and system conditions will be available at 14:00

If there are any queries relating to this interject please refer them to the CCO Observer at Bell Block

Exercise Validation. TSO Interject #4 14:00pm
Phone call to Gas Control

This is the 4th Interject from Exercise Control.

Pipeline repairs have been completed and the section between the Arapuni West and Arapuni East Main Line Valves has been fully re-commissioned.

This is the final interject.

Continue with the exercise until notified that the exercise has ended.

If there are any queries relating to this interject please refer them to the CCO Observer at Bell Block

Exercise Validation. Media Interject #1 13:00 pm
Phone call to Senate

This is an Interject from Exercise Control.

I am a journalist with National Radio. I have been trying to contact the Critical Contingency Operator to get some information on the gas outage affecting the Bay of Plenty and I've been told to call you. I would like to talk to the CCO at 3.00pm please.

This is the end of this interject.

Would you like me to repeat anything?

Exercise Validation Retailers Interject #1 12:30pm
Email to Retailers

This is a clarification note from Exercise Control.

The CCO has issued an instruction to Retailers to implement Media Appeals. Please prepare media appeals and send a copy to the CCO at cco@cco.org.nz.

- It is acknowledged that as this is a desk top exercise no such appeals will be implemented however the CCO would appreciate Retailers facilitating this aspect of the exercise by providing to the CCO a copy of any media releases that are prepared for the purpose of the exercise.
- It is also acknowledged that since the exercise is of limited duration it is possible that the exercise will have progressed to the "next stage" before Retailers have completed preparing any media releases however the CCO would encourage Retailers to complete this process even if it extends beyond termination of the exercise.

If you have any queries regarding this aspect of the exercise please contact Exercise Control

Exercise Validation. Media Interject #2. 14:30
Phone call to Senate

This is an Interject from Exercise Control.

The journalist from National Radio has phoned to cancel the interview as it seems the pipeline is now fixed.

Senate can now stand down their response and e-mail the CCO at cco@cco.org.nz with any feedback for the exercise de-brief.

Exercise Validation: Exercise Ends 16:00

1. CCO website message on Current CC Events

Date 24th June 2015 Time: 16:00 Situation: Exercise Validation has ended. Thanks to all participants.

Please could Retailers submit any media releases that have not yet been supplied as soon as they are ready and complete the self-assessment form at Appendix F of the Participants' Brief by Wednesday 9th July.

All other Participants' observations would be much appreciated.

Please send these to the CCO at cco@cco.org.nz

2. E-mail – to all CCO email addresses

Subject: Exercise Validation – CCO exercise has now ended

Date 24th June 2015 Time: 16:00 Situation: Exercise Validation has ended. Thanks to all participants.

All Participants' observations would be much appreciated.

Please send these to the CCO at cco@cco.org.nz

3. E-mail to Retailers

Subject: Exercise Validation – Retailers Feedback

Please could Retailers submit any media releases that have not yet been supplied as soon as they are ready and complete the self-assessment form at Appendix F of the Participants' Brief by Wednesday 9th July.

Please send these to the CCO at cco@cco.org.nz

The CCO will also be holding a telephone conference debrief tomorrow at 2.00pm for Retailers should they wish to participate.

- Tel. 0800 449 288
- Guest Code 69512220#

4. Txt – to all CCO txt addresses

Exercise Validation has now ended. Thanks to all participants.

Appendix B – Exercise Timeline

Exercise Control Log

Please note this is a summary only of events. Not every communication has been noted in this report.

Time	Actor	Activity
08:30	Exercise Control	Exercise commenced messages
08:35	Exercise Control	1 st interject for TSO delivered
08:48	TSO	CCO received TSO alert from messaging system
08:50	CCO	CCO calls number provided by TSO message – no answer so leaves message.
08:55	CCO	CCO rings TSO again. TSO explains nature of incident, CCO gives oral declaration of Critical Contingency to TSO as at 08:58. Requests SCADA protocol be switched to event mode
09:11	TSO	Sends 1 st Security of Supply alert Begin task of drafting declaration notice based on oral notice.
09:30	Exercise Control	Intervention to cease oral notice declaration process. CCO will draft declaration notice
09:30	CCO	Calls TSO to let them know CCO will draft a declaration and send for review
09:42	CCO	Draft declaration to TSO for comment
09:45	TSO	Draft declaration sent by TSO team to rest of Vector and posted on OATIS as a declaration
09:50	TSO	Identify error on draft declaration notice and preceding Security of Supply alert (incident is on 500 line not 800 line)
09:54	TSO	Sends correction to draft declaration from 800 line to 500 line to CCO
10:00	Exercise Control	2 nd interject for TSO delivered
10:02	CCO	Declaration Notice issued
10:05	TSO	Declaration replicated on OATIS (MDL and Vector)
10:14	TSO	Security of Supply alert 2 sent and pipeline schematic sent to CCO
10:30	CCO	CCO discussion with TSO re survival time and curtailment required
10:36 to 10:50	CCO	CCO sends draft curtailment notice to TSO. Problems with e-mail. Message re-sent at 10:40 and 10:43. Notice read and confirmed over the phone
10:59	CCO	Curtailment notice issued
11:00	Exercise Control	3 rd interject for TSO delivered
11:05	CCO	Phones TSO to request information for public statement by midday. TSO shares info from interject 3 with CCO

11:09	Transpower	AMS alert received by CCO from Transpower System Operator
11:14	TSO	Security of Supply alert 3 sent out
11:15	CCO	Phone Transpower to explain nil impact of incident on power stations
11:20	TSO	1 st Curtailment notice posted on Vector OATIS
11:34	CCO	Draft revised curtailment notice to TSO for review
11:40	CCO	CCO activates Senate (to manage CCO media interest)
11:49	TSO	Send Asset Owner public information statement to CCO
11:52	CCO	Further curtailment notice issued
12:02	Senate	Draft media statement for CCO to review
12:03	TSO	Revised curtailment notice posted on Vector OATIS
12:08	CCO	Notice to Retailers to implement media appeals issued
12:26	CCO	Revisions to draft media release sent to Senate
12:31	Exercise Control	Retailer interject 1 issued
12:36	Genesis	Media release sent to CCO on behalf of Retailer communications protocol signatories (later a revised media release is received at 12:59)
12:43	Vector Analyst	1 st Analysis of Retailer updates sent to CCO
12:45	CCO	Status Update published on CCO website
13:00	Exercise Control	Media interject 1 delivered by phone to Senate
13:26	Senate	Media statement prepared for radio interview supplied to CCO
13:41	Senate	Key media messages for CCO to review
13:49	Vector Analyst	2nd Analysis of Retailer updates sent to CCO
13:45	CCO	CCO rehearses radio interview with Senate
14:08	TSO	Security of Supply 4 sent out
14:18	CCO	Draft restoration notice sent to TSO for review
14:20	TSO	Confirmation of restoration notice to CCO
14:25	CCO	Restoration notice issued
14:35	TSO	Replication of restoration notice on Vector OATIS
14:42	CCO	Draft termination notice to TSO for review
14:42	Genesis	Updated media statement for restoration
14:43	TSO	Confirmation of draft termination notice back to CCO
14:49	CCO	Termination of CC notice issued
14:55	TSO	Termination notice posted on Vector and MDL OATIS
15:03	TSO	Issued Security of Supply Alert 5
15:17	Exercise Control	End of exercise messages sent

Appendix C – Notice Summary

All CCO notices can be viewed in full on www.cco.org.nz – Historical Events

All Vector TSO notices can be viewed on www.oatis.co.nz – Vector Information Exchange, using 'Notice Search' button and begin date of 24/6/15

All MDL TSO notices can be viewed on www.oatis.co.nz – Maui Information Exchange using 'Notice Search' button and begin date of 24/6/15

Notices to TSO

Time of e-mail to TSO	Notice ID	Notice Type	TSO replication	
			MDL	Vector
10:02	CC-0015	Critical Contingency Declaration Notice	10:06	09:58 and 10:05 (draft notice posted in error replaced with actual declaration)
10:59	CC-0016	Direction to Curtail Demand	N/A	11:20
11:52	CC-0017	Direction to Revise Demand Curtailment Notice	N/A	12:03
14:25	CC-0020	Direction to restore curtailed demand	N/A	14:35
14:49	CC-0021	Termination of Critical Contingency	14:53	14:54

Other Notices

Posted	Notice ID	Notice Type
12:00	CC-0018	Media Appeals
12:45	CC-0019	Status Update Notice

Appendix D – Asset Owners Public Statements and Media Appeals

Asset Owner Public Information Report provided to the CCO

Date:	24/06/2015
Time:	12:00pm
Notice Number:	1
Report Issued By:	
Critical contingency caused by:	A contractor doing ground work with a 32 tonne bulldozer has struck the bay of plenty gas pipeline.
Action being taken by Asset owner to resolve the situation:	Response crews mobilised and repairs initiated. Industry stakeholders notified. Critical contingency is in place
Estimated Time to repair underlying problem:	3-4 days (72-96 hours)
Any other Information that would better inform the market:	Critical Contingency Officer has requested curtailment.

The information contained in this report will be utilised by the CCO in Status Update Notices pursuant to the requirements of clause 1 of Schedule 5 to the Critical Contingency Management Regulations.

The CCO will issue advice of the Status Update Notice to the stakeholders listed in the CCO Information Guide and publish the notice in the public domain of the CCO web site at <http://www.cco.org.nz>

Where the CCO has no information on expected repair times it is required to publish a statement to that effect. In such circumstance the CCO will include the following statement in the Status Update Notice:

The asset owner [name] has not yet provided us with an estimated time for repair. Our understanding is they are investigating the situation. If there are further questions relating to either the asset or the estimated time of repair, please contact the asset owner [name]

This report should be emailed to cco@cco.org.nz

Media Statements received from Genesis on behalf of the Retailers Communication Protocol

(Note that Pulse Energy is also a signatory to the protocol)

Media Statement

Critical Gas Contingency

24 June 2015

Bay of Plenty gas outage

This is a message for domestic and small commercial gas consumers.

Damage to a high pressure gas pipeline has caused a shortage of gas supplies in the Waikato and Bay of Plenty regions. In response to the critical contingency emergency, commercial and industrial gas consumers have already been directed to cease using gas.

As the gas supply system has not stabilised gas retailers are now asking domestic consumers and any small commercial consumers who have not been contacted to reduce their gas usage to a minimum until further notice.

These conservation measures are designed to extend the availability of gas for as long as possible while efforts are made to restore normal supplies. New information will be provided as it comes to hand.

Please note that we do not want consumers to turn off the service valve at their gas meter. All we are seeking is that consumers reduce their use of gas as much as possible.

This message is provided by the following retailers – Contact Energy, Energy Direct New Zealand, Energy On Line, Genesis Energy, Mercury Energy and Trustpower.

Issued by:

Richard Gordon
Public Affairs Manager
Genesis Energy

021 681 305

Media Statement

Critical Gas Contingency

24 June 2015

Bay of Plenty gas outage – update to consumers

This is a message for domestic and small commercial gas consumers.

The damage to a high pressure gas pipeline that caused a shortage of gas supplies in the Bay of Plenty and Waikato is now repaired to the extent that normal gas use can be resumed for domestic and small commercial gas consumers.

Consumers may now resume their normal use of natural gas. Their efforts to cease gas use was much appreciated by gas producers, distributors and retailers.

This message is provided by the following retailers – Contact Energy, Energy Direct New Zealand, Energy On Line, Genesis Energy, Mercury Energy and Trustpower.

Issued by:

Richard Gordon
Public Affairs Manager
Genesis Energy

021 681 305

Appendix E – Retailer Updates

First Retailer update received by CCO from Vector at 12:43

Pipeline system	Sub-	Comments & Action Taken	% Compliance				
			3	4	5	6	7
Rotowaro			100%	50%	N/A	N/A	N/A
Morrinsville			100%	100%	N/A	N/A	N/A
Bay of Plenty		3 rd Party damage to the Vector 500 pipeline near Arapuni, Vector Bay of Plenty System east of Arapuni Dam,	42%	42%	N/A	N/A	N/A
Maui			100%	100%	N/A	N/A	N/A
300 Line			100%	100%	N/A	N/A	N/A
KGTP North			100%	100%	N/A	N/A	N/A
KGTP South			100%	100%	N/A	N/A	N/A

Second Retailer update received by CCO from Vector at 13:49

Pipeline system	Sub-	Comments & Action Taken	% Compliance				
			3	4	5	6	7
Rotowaro			100%	100%	100%	100%	100%
Morrinsville			100%	100%	100%	100%	100%
Bay of Plenty		3 rd Party damage to the Vector 500 pipeline near Arapuni, Vector Bay of Plenty System east of Arapuni Dam,	50%	50%	83%	50%	50%
Maui			100%	100%	100%	100%	100%
300 Line			100%	100%	100%	100%	100%
KGTP North			100%	100%	100%	100%	100%
KGTP South			100%	100%	100%	100%	100%

Appendix F – Other participant Feedback and Retailer Self-Assessment Forms

Feedback from Transpower System Operator

“From our perspective the exercise was well orchestrated and useful. It enabled us to pick up on an incorrect link in our CAN template. One thing to feed back is that our process states the CCO will contact NCC to advise of the Critical Contingency. The Coordinators didn’t receive a call so contacted the CCO themselves. Are you able to confirm your process is to ring NCC once a contingency has been identified?”

Retailer Self-Assessment Forms

Retailer Name	Contact Energy
Exercise Participation Level *delete as appropriate	Partial
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.	Contact has system processes and action points (via exceptions) in place where we receive a notification from the registry or initiate a new customer sign up for non domestic gas users. We then send out the appropriate forms to customers to complete to enable us to capture any emergency contact information if this is different to the consumer responsible for the gas billing account.
2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	Contact is a signatory to the Gas Retailers Communications Protocol which provides for a Lead Retailer (changes each calendar year) to coordinate media appeals for all signatories (Genesis, Energy Online, Contact Energy, Mercury Energy, Trustpower and EDNZ). The protocol sets out the Lead Retailer responsibilities and includes media release templates. The key points of the protocol are also set out in Contact’s internal gas contingency plan so that all stakeholders including Corporate Communications are across the terms of the protocol. .
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	As mentioned in item 1 above, emergency contact information is primarily assessed at the primary points of change. In addition to this we perform checks to ensure our contact information is up to date, usually in conjunction with the annual provision of gas consumption and curtailment bands to the CCO. Contact also performs out of cycle assessments where reasonable differences are known to exist based on

	<p>major gas customers switching away or downgrading gas usage.</p>
<p>7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.</p>	<p>Contact’s internal processes are largely initiated and monitored using our core SAP customer management system. This essentially allows us to input the affected gas gates and curtailment bands to output the relevant customer contact information.</p> <p>Activities are then created in the system and users action these by calling affected customers and recording comments, dates, times and the appropriate status outcome for each communication. I.e. Contacted Customer X who agreed to cease using gas, 01/07/2015, 10:30am, Status – Curtailment instruction successful.</p> <p>These activities can then be updated/completed as the contingency progresses.</p> <p>In addition to the above, users are given scripts to assist with communicating the curtailment instructions to affected gas consumers.</p>
<p>8. Views/comments on the Retailer Compliance Update Form and process.</p>	<ol style="list-style-type: none"> 1. Contact would appreciate it if the CCO could provide word document and excel formats for any communications as appropriate. Although we can work around PDF’s this is time consuming and not ideal when trying to work efficiently. I.e. importing affected gas gates into our system. 2. Similar to the above, if the CCO could make the curtailment update form a little smarter to enable retailers to provide only gas gates/curtailment bands that are affected then that would also save time throughout the process. This is as opposed to having a form that contains all gas gates.
<p>9. Description of methods processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).</p>	<p>As mentioned above under item 7, we call affected customers and then record the updated curtailment status and communications in our system as updates to activities statuses.</p>
<p>10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.</p>	<p>Contact understands that some of the terms used throughout the CCM regulations are reasonably technical and may not be clearly understood by the gas consumer. We have pre-prepared scripts in our internal plan to assist with communicating the requirement to the customer and helping them to understand the rationale, that any failure to cease taking gas is an offence under the contingency regulations, and</p>

	associated downstream impacts if they do not cease using gas during a critical contingency.
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	<ol style="list-style-type: none"> 1. During exercise Validation Contact experienced an unnecessary delay to initiating our processes due to the TSO referencing (or reusing) the CCO's instruction (notice CC-0016) within their own instruction notice. This initially created some confusion as reusing the CCO notice (CC-0016) obviously has the instruction being directed from the CCO to the TSO, rather than the TSO to Retailers. While we eventually realised that this was a TSO instruction to curtail, the TSO should not reference or reuse the CCO's original notice, they should generate their own notice to ensure the instruction is clear. 2. On a minor note, while Contact understands this was a trial exercise, we consider the notices were issued too close together which didn't allow us time to initiate and assess various stages internally. This was a problem with the previous exercise and does not reflect reality. There seemed to be a large gap between the start of the exercise and the first TSO instruction (almost 3 hours). It would be better if the CCO could spread the notices out across the day to enable retailers to perform assessments, communications and updates. 3. Only a subset of the main stakeholder group are included in the TSO curtailment instructions which is understandable, however we consider it would be useful and reasonably practicable to have this group extended to operational teams rather than having to be passed through internally. This would probably only be beneficial to Retailers who need to act on this notice.

--	--

Retailer Name	Genesis Energy
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.	Report run from Gentrack lists Hm/Mob/Wk phone numbers a random sample of these were checked to verify validity
2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	Media appeal was prepared for curtailment and restoration and sent to the retailers group and CCO. Media appeals process would follow the retailer's communication protocol and would involve conference calls between the retailers and notices sent to the press/radio/television.
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	Annually or sooner depending on any interaction with the customer for other issues i.e. asset maintenance from the meter owner or network
7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.	For the exercise we assessed that 75 CSR's would be required to implement outbound calling to our 777 affected customers, we would also have implemented talking tech/emails and SMS to ensure the customers received the notice

8. Views/comments on the Retailer Compliance Update Form and process.	Very good
9. Description of methods processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).	For the exercise we assessed that 75 CSR's would be required to implement outbound calling to our 777 affected customers, we would also have implemented talking tech/emails and SMS to ensure the customers received the notice
10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.	Not tested
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	The exercise went very well for us; the retailer information was supplied to TSO and CCO within 30 minutes of any direction notices. Some data is incorrect for certain bands and this is being addressed. Internal and external notifications were responded to.

Retailer Name	Greymouth Gas New Zealand
Exercise Participation Level *delete as appropriate	Facilitation
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.	Updated promptly upon receiving new contact information and gaining/losing customers. Reviewed periodically (at least annually) to ensure the document is up to date.

2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	Greymouth has 6 residential customers. We contact each of them directly to inform them of the event and request that they curtail.
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	Periodically but at the least annually.
7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.	Customers are called and emailed notifying them of the event and directing them to curtail.
8. Views/comments on the Retailer Compliance Update Form and process.	I found the instructions easy to understand and the form is designed in a way that provides for quick updates.
9. Description of methods processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).	By phone and email.
10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.	Participated as a facilitator only. However, we brief all of our customers on critical contingencies.
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	Exercise and update forms were easy to follow. Learned that email templates for quickly communicating the curtailment directions to customers would be an asset.

Retailer Name	Trustpower (EDNZ response will be separate)
Exercise Participation Level *delete as appropriate	Facilitation
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.	Fortnightly update of records, and letters and phone contact made to ensure customers allocated a curtailment band are up to date. A nightly process operates that updates the number of ICP's we have by gate and band to ensure we can quickly provide the CCO an update of our customer counts at each gate, and band.
2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	Trustpower is a signatory of the Gas Retailers Communication Protocol. During the test Genesis Energy was the designated lead for all media campaigns. Trustpower contacted Genesis to ensure that processes were in place.
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	Emergency contact details are confirmed with all new customers, and an annual review is completed to ensure that contact details are correct.
7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.	Contact is made via email, and a phone call is made from their account manager to explain the situation, and what is required, under regulation 56. When a

	customer switches in, relevant information covering Critical Contingencies is provided, and possible penalties for non-compliance are outlined. In this case all customers on the affected pipeline were identified, and Genesis Energy, acting on behalf of other retailers initiated a Media Campaign to promote a reduction in gas consumption.
8. Views/comments on the Retailer Compliance Update Form and process.	We have processes to quickly populate this information at any time. An internal process caused a delay in sending this information out during the test. This was caused by change in staffing. We have amended the role requirements as necessary to ensure that this does not occur in the future.
9. Description of methods, processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).	Contact is made via email, and a phone call to ensure they are promptly informed of cessation of curtailment.
10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.	Moderate. Trustpower currently has very few customers that could be curtailed under a Critical Contingency.
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	Clear prompt communication was provided. The exercise was well suited to test Trustpower's processes. We have a robust set of procedures in place in the event the curtailment of Mass Market Customers is required.

Retailer Name	EDNZ
Exercise Participation Level *delete as appropriate	Facilitation
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.	All new customers or those with a change to their load shed category are written to and notified of classification and asked to return completed emergency contact details.
2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	As per new (Dec 14) Gas Retailer Communications Protocol, it is currently the responsibility of Genesis Energy to arrange on behalf of retailers.
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	CCM emergency contact and after hours contact form sent to all group 3-7 customers – followed up to ensure received. Multiple contacts requested for each – BH/AH and email.
7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.	Master list of all group 3-7 customers maintained with all contact details. Full procedural document in

	place – all customers phoned and then confirmation email sent.
8. Views/comments on the Retailer Compliance Update Form and process.	Clear and easy to use
9. Description of methods, processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).	Normally would phone all affected customers the follow up by email confirmation
10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.	Facilitation only
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	Would be good to run test over a shorter time frame with faster communication turn-around

Retailer Name	Pulse Energy Ltd
Exercise Participation Level *delete as appropriate	Facilitation
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.	Not applicable, only supply domestic customers
2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	Signatory to the Gas Retailers Communication Protocol
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	At least annually
7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.	Media release via retailer protocol
8. Views/comments on the Retailer Compliance Update Form and process.	
9. Description of methods, processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).	Media release via retailer protocol

10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.	Not applicable
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	

Retailer Name	Vector Gas Trading
Exercise Participation Level *delete as appropriate	Full
1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.	Details are held in our GIX system. A notice was sent out before the exercise and email bounce backs are monitored and updated regularly.
2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).	This would be managed through Vectors public affairs department in consultation with the Gas Trading team. Pulse energy was notified as per the SOP
3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?	Annually. We participate in the industry event and run our own event annually.
7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.	We have a comprehensive SOP for an event. All notifications are posted in our GIX system followed up by email notification.
b8. Views/comments on the Retailer Compliance Update Form and process.	We thought this was simple and user friendly. The information we collect through our GIX system is easily transferred to the compliance form.
9. Description of methods processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).	Customers are sent a text notification via our GIX system. Larger customers will be called by the account manager.
10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.	We do a good job advising customers of their obligations. Most of our larger consumers are aware of their responsibility in an event.
11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.	The format was good. There was a query around when we could notify customers to turn the gas back on but this was quickly resolved by the TSO We identified some updates in our SOP to be made.

Retailer Name	Mighty River Power
Exercise Participation Level *delete as appropriate	Facilitation

<p>1. Description of process in place to ensure consumer emergency contact details are maintained and up to date in accordance with regulation 43.</p>	<p>Small Commercial Customers are contacted once per year to ensure details are correct. Residential customers are asked if their contact details have changed when they call in.</p>
<p>2. Description of process for implementing any media appeals if directed by the CCO under regulation 53(1)(db).</p>	<p>Signatory to the Gas Retailers Communication Protocol</p>
<p>3. How often are emergency contact numbers reviewed or audited for completeness and accuracy?</p>	<p>Small Commercial Customers are contacted once per year to ensure details are correct. Residential customers are asked if their contact details have changed when they call.</p>
<p>7. Description of methods, processes and procedures in place for issuing urgent notices in accordance with regulation 56.</p>	<p>Media release via retailer protocol</p>
<p>8. Views/comments on the Retailer Compliance Update Form and process.</p>	
<p>9. Description of methods, processes and procedures for advising affected consumers of termination of critical contingency in accordance with regulation 61(c).</p>	<p>Media release via retailer protocol</p>
<p>10. Views on levels of consumer understanding of your instructions and their obligation under regulation 57.</p>	<p>Not applicable</p>
<p>11. Views on exercise format, lessons learnt and any planned future changes or initiatives you may take that were identified during the exercise.</p>	