

NETWORK GAS SUPPLY EMERGENCY

EXERCISE 2010

Exercise Revive

BRIEFING NOTES

Final v1.0

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1. OVERVIEW

The Network Emergency Coordinator (NEC) is regularly required to carry out a full-scale simulation of a Network Gas Supply Emergency (NGSE). Following the exercise, a report is produced for the Health and Safety Executive (HSE) detailing the effectiveness of the emergency arrangements and highlighting key findings.

Exercise Revive is this year's exercise and it will take place over the 10th and 11th November 2010 during normal working hours. This briefing pack outlines the actions required by each exercise participant.

In Revive the NEC will test the effectiveness of an industry response to an NGSE and the Emergency procedures, specifically:

- The NEC Safety Case – Issue 6.1 (July 2008)
- T/PM/E/1 - Issue 7.3 (January 2007)
- T/PM/E/3/GNCC – Issue 13 (September 2010)

Participants in exercise Revive will include:

- Gas National Control Centre (GNCC)
 - Network Emergency Management Team (NEMT)
- Electricity National Control Centre (ENCC) re CCGT power generation
- Distribution Network Control Centres (DNCCs)
 - National Grid Distribution Networks (NGDN)
 - Scotia Gas Networks (SGN)
 - Northern Gas Networks (NGN)
 - Wales & West Utilities (WWU)
- Distribution Networks
- Shippers
- Supplementary Transporters
- LNG Importation Terminals
- Storage Sites Operators
- Interconnector Operators
- Primary and Secondary connected VLDMCs/CSEPs

Exercise Revive should be used to test the effectiveness of each party's internal procedures and ensure that no conflict exists between these procedures and those detailed above.

During the Exercise all communications between participants will commence with "**Exercise Revive**".

Please also note that during the exercise the actual physical gas supply system and flows **will not be altered** in any way and the commercial regime **will not** be affected

Each party involved in Exercise Revive should appoint an observer to oversee all parts of the exercise in which they are involved or alternatively a log keeper to keep records of

each stage of the process. A report from each participant should be produced and sent to the GNCC Emergency Planning Team at gasops.emergencyplanning@uk.ngrid.com within a week of the exercise's conclusion.

Potential exercise participants that **will not** take any part in Exercise Revive are:

- Beach Terminal Operators
- Beach Delivery Facility Operators
- Market Operators
- DECC

Should you have any questions relating to Exercise Revive, the contact details for the National Grid, GNCC Emergency Planning Team can be found in Appendix 8.

NOTE: Where appropriate, the four Network Operator's control rooms are collectively named Distribution Network Control Centres (DNCCs) through out this document.

Communications to and from Distribution Networks during the exercise will be made via the relevant Distribution Network Control Centre.

NOTE: The Distribution Networks will be required to contact post 1st October 2011 Interruptible and Firm consumers based on Uniform Network Code Modification 090. This was previously tested during exercise Reform in May 2010. The NTS Primary Consumers will be contacted by GNCC in line with existing Uniform Network Code.

2. CLASSIFICATIONS OF AN NGSE

There are three types of Network Gas Supply Emergency:-

- a. Critical Transportation Constraint
- b. Gas Deficit Emergency (Insufficient Supplies)
- c. Gas Deficit Emergency (Breach of GS(M)R Safety Monitor Emergency)

3. STAGES OF NETWORK GAS SUPPLY EMERGENCY

The five stages of the Network Gas Supply Emergency and the measures available are as follows: -

Stage 1 – Potential

- Maximisation of Primary System Linepack
- Maximisation of Secondary System Linepack
- Interruption of Exporting Systems
- VLDMC Emergency Interruption
- NTS Non-VLDMC Interruption
- Network Emergency interruption
- Public Appeal 1
- Review Storage Delivery - Breach of GS(M)R Safety Monitor Emergency only
- Admittance of Emergency Specification Gas

Stage 2 – Declaration

- National Grid's residual balancer actions are suspended on the OCM at the declaration of stage 2 if a Gas Deficit or Breach of GS(M)R Safety Monitor Emergency is declared.
- Maximisation of beach and LNG terminal gas
- Maximisation of NTS Storage
- Public Appeal 1

Stage 3 – Firm Load Shedding

- Reduction from exporting systems
- VLDMC Firm Load Shedding
 - Category of consumers = > 50 mtpa
- Protected by isolation consumers request to turn off
 - Breach of GS(M)R Safety Monitor Emergency only
 - Category of consumers = >2mtpa <50 mtpa
- Firm load shedding of end-users > 25,000 tpa
- Storage withdrawal for sites protected by Monitor
 - Breach of GS(M)R Safety Monitor Emergency only
 - Category of consumers = <25,000 tpa
- Public Appeal 1 & 2

Stage 4 – Allocation & Isolation

- Allocation of available gas across Distribution Networks
- Networks to utilise isolation plans to achieve requested reduction in demand, if necessary

Stage 5 – Restoration

- NEC requests start of restoration process
- Restoration plans implemented by Distribution Networks

4. THE EXERCISE

This year's exercise will be held over two days during normal working hours.

The exercise will be divided into two parts, A and B.

Part A will include selective actions from Stage 1, Stage 2 and Stage 3, and should be completed by the early afternoon of Day One. Some exercise participants will only have an **active** involvement in Part A of the exercise; these include:

- Shippers
- LNG Importation Terminals
- Storage Sites
- Primary & Secondary connected VLDMCs/CSEPs
- I(UK) Bacton Operator

Note - All participants will continue to receive NEC facsimiles throughout the remainder of the exercise.

Part B will involve Stage 4 and Stage 5 and will run on from the conclusion of Part A during Day One, and continue throughout Day Two.

Exercise Revive will test the following processes: -

4.1 Day One – Part A

A scenario will be provided to the Gas National Control Centre (GNCC), giving information regarding an incident(s) on the National Transmission System (NTS).

The scenario will require the following actions to be implemented.

Stage 1 Actions

Declaration of a Network Gas Supply Emergency – Gas Deficit (Insufficient Supplies)

Emergency interruption of consumers will be required as follows:

DNCCs will contact only post 1st October 2011 interruptible VLDMCs as a retest of the post Uniform Network Code modification 090 last tested during 'Reform' in May 2010.

GNCC will contact NTS interruptible sites on the primary NTS network in accordance with current Uniform Network Code.

GNCC will notify ENCC of NTS CCGTs directed off gas at Stage 1.

Shippers will contact only post 1st October 2011 interruptible non-VLDMC consumers as a retest of the post Uniform Network Code modification 090 last tested during 'Reform' in May 2010. Shippers will provide ½ hourly updates of interruption progress to each relevant DNCC.

GNCC will contact systems exporting gas from Great Britain in accordance with current Uniform Network Code.

Shippers nominating flow on interruptible exit meters at Moffat will receive notification of interruption (reduce nominations to zero). Revised nominations to GNCC should be clearly marked 'Exercise Revive'

Storage Operators **will be** notified to cease gas injection to storage and **will be** asked to complete potential storage withdrawal information.

Note - During the exercise the actual physical gas supply system and flows **will not** be altered in any way and the commercial regime **will not** be affected

LNG Importation Terminal Operators **will be** asked to complete potential supply information.

Stage 2 Actions

For the purposes of exercise Revive:

APX **will not** be notified of changes in status of the On the Day Commodity Market (OCM).

Shippers **will not** be directed to maximise supplies from terminals and storage facilities.

Storage Operators **will** be directed to maximise storage delivery.

LNG Importation Terminals **will** be directed to maximise gas supply.

Stage 3 Actions

For the purposes of exercise Revive:

Distribution Networks (DNs) will contact all post 1st October 2011 Firm VLDMCs as a retest of the post Uniform Network Code modification 090 last tested during 'Reform' in May 2010.

DNs will be required to contact at least a minimum of 200 Large Firm sites per LDZ by largest SOQ.

For clarity, DN sites contacted will now include those currently interruptible (prior to 1st October 2011), but which will become firm post 1st October 2011.

DNs will use Shipper and/or transporter contact details (strategy may vary by each DNO).

Isolation of sites that fail to cease taking gas on instruction - exercises by the DNs only if DNs deem necessary.

GNCC will contact all NTS Primary Network Firm sites in accordance with current Uniform Network Code.

GNCC will notify ENCC of NTS CCGTs directed off gas at Stage 3.

GNCC will contact systems exporting gas from Great Britain in accordance with current Uniform Network Code.

The Public Appeal process **is not** being tested as part of this exercise.

GNCC – NTS Consumer Questionnaire

After all the NTS Primary Network sites have been contacted for Interruption and/or Firm Loading Shedding purposes, the Shipper Liaison Team at GNCC will contact these NTS sites again to undertake a short NTS Consumer Survey. This survey will relate to response times for emergency directions and use of gas following GS(M)R Revocation. This will be the last active participation of NTS connected sites during Exercise Revive.

NTS Site Name:	
Nature of Business	

Estimated time taken to cease taking gas completely in an Emergency (GS(M)R)	15 mins	30 mins	45 mins	1hour	Other (give mins)

Estimated time taken to get back to full gas load after GS(M)R Revocation Notification	15 mins	30 mins	45 mins	1hour	Other (give mins)

Likelihood of site recommencing the use of gas immediately following a Gas Emergency (i.e. GS(M)R Revocation)

4.2 Day One – Part B

Stage 4 Actions

Part B of the exercise will commence following confirmation of the completion of Part A of exercise Revive by all four Distribution Networks, and will comprise:

DNs will be required to provide Isolation Plans and to isolate part of each LDZ.

DNs will be required to provide LDZ Situation Reports and prepare Restoration Plans.

GNCC will be required to develop Restoration Strategy.

4.3 Day Two – Part B

Stage 5 Actions

DNCCs will be required to complete Additional Gas Requests

GNCC will be required to start implementation of the Restoration Strategy and develop ongoing restoration strategy

DNs will be required to start partial Restoration and develop ongoing restoration strategy

5. NEC INVOLVEMENT – NGSE

The NEC will request the primary transporter (National Grid, Gas National Control Centre (GNCC)) to take measures to balance the primary system under a gas deficit emergency. This will involve the formation of a Network Emergency Management Team (NEMT).

The measures taken should reflect the NEC Safety Case and T/PM/E/1.

During the exercise the actual physical gas supply system and flows will not be altered in any way and the commercial regime will not be affected.

During the exercise, all NEC declaration notices will be issued to all exercise participants, including Supplementary Transporters. (Details of Supplementary Transporters as previously notified to GNCC by the Distribution Network Control Centres)

The NEC will issue an NEC 'Update on Network Gas Supply Emergency' declaration to advise when Part A of the exercise has been completed. This is envisaged to be early afternoon on Day One.

At the end of day one the NEC will issue an NEC 'Update on Network Gas Supply Emergency' declaration to indicate that the exercise will be suspended until the following day.

During day two of the exercise, the NEC/NEMT will take the opportunity to discuss strategies and issues which may arise given various scenarios or outcomes. They may or may not wish to raise queries with the DNCCs via the off-line exercise co-ordinators as a result of these strategy discussions.

At the end of day two the NEC will issue a NEC 'Declaration of the end of a Network Gas Supply Emergency' to all exercise participants to indicate the Exercise is complete.

The NEC will make an assessment of how well the exercise is carried out by the primary transporter and all other parties involved.

6. DISTRIBUTION NETWORK CONTROL CENTRES.

System Operators of the secondary transporter networks will be notified of actions at each stage by GNCC.

During the exercise information should be disseminated to Distribution Networks, and their Supplementary Transporters and Shippers as required in line with E3 procedures.

Distribution Network Control Centres should action and collate updates on the progress of:

- Emergency Interruption post UNC modification 090
- Firm Load Shedding post UNC modification 090

DNCCs should make available an off-line exercise co-ordinator to deal with queries which may or may not arise from the NEMT strategy discussions.

DNCCs should also capture exercise observations and experiences for use at a further Exercise Revive workshop to be held after the NEC exercise.

DNCC Reporting

Following the exercise, produce a report detailing any problems or observations associated with each process that you were involved in and return it to the GNCC Emergency Planning Team at gasops.emergencyplanning@uk.ngrid.com . Other contact details are provided in appendix 8

DNCC Reporting on VLDMCs

The following information should be collated by each DNCC, by LDZ, relating to the emergency interruption and firm load shedding of Distribution Network VLDMCs at Stage 1 and Stage 3 respectively :

Interruptible VLDMC

LDZ	Site Name	Shipper	Contact Details Correct (Y/N)	Cannot Turn Off	Can Turn Off	Time Successfully Contacted (hh:mm)	Total Site SOQ (kWh)

Firm VLDMC

LDZ	Site Name	Shipper	Contact Details Correct (Y/N)	Cannot Turn Off	Can Turn Off	Time Successfully Contacted (hh:mm)	Total Site SOQ (kWh)

DN Firm Load Shedding of VLDMCs

	LDZ 'A'	LDZ 'B'	LDZ 'C'	LDZ 'D'	LDZ 'E'
Time taken to complete telephone calls					
No of Firm VLDMC Sites					
Isolated within 1 hour					
Isolated within 1-2 hours					
Isolated within 2-3 hours					
Isolated within 3-4 hours					

NOTE - Please also see section 7.4 Reporting for Distribution Networks and appendix 7 for further guidelines on the reporting process and the additional information required.

7. DISTRIBUTION NETWORK RESPONSIBILITIES

All communications to and from Distribution Networks should be made through each relevant Distribution Network Control Centre. i.e. SGN should send communications to GNCC through the SGN Control Centre support team, NGN should send communications to GNCC through the NGN Control Centre support team etc.

7.1 Stage 3 - Firm Load Shedding

The aim of the firm load shedding exercise is to establish:

- a) If a firm end-user can be contacted using emergency contact information
- b) If a firm end user can stop using gas once contacted
- c) Timeliness of Firm Load Shedding
- d) That processes are in place to enforce (physically isolate) load shedding, if required

Once the GNCC requests that firm load shedding begin for those sites >25,000 tpa, the Networks will be required to start contacting the end-users in this category to request them to cease using gas.

The Distribution Networks will be requested to Firm Load Shed a specified volume of their >25,000tpa load.

For reporting purposes, the Distribution Networks should contact **at least 200 sites per LDZ** as this will enable a direct comparison to be made of Firm Load Shedding performance in previous exercises.

As exercise Revive will be testing Isolation and Restoration, it is very important that NET2R forms be completed promptly, every hour during Stage 3 to provide an update on Firm Load Shedding progress to the relevant DNCC. The DNCCs will forward this information to the GNCC immediately upon receipt.

Once the relevant site contacts per LDZ have been made, please also complete and provide the following information to the relevant DNCC regarding firm load shedding progress achieved. DNCCs to forward this to GNCC immediately upon receipt.

LDZ Firm Load Shedding Progress Achieved by Site Contact

	LDZ 'A'	LDZ 'B'	LDZ 'C'	LDZ 'D'	LDZ 'E'
Start of Day EoD Demand (mcm)					
SOQ of Sites Able To Turn Off					
Current EoD Demand (mcm)					

NOTE - The progress of Firm Load Shedding provided to GNCC via NET2R together with a completed table of the above, will help to determine the escalation to Stage 4 Isolation.

To enable direct comparisons with previous exercises Distribution Networks are requested to report on arrangements for firm load shedding overall and also on the actions relating to Large DN Loads (i.e.>2mtpa <50mtpa).

As part of exercise Revive Distribution Networks should estimate the number of Large DN Loads (>2mtpa <50mtpa) that can be shed based upon the existing plans and personnel that would typically be available under an NGSE. There is no requirement for Distribution Networks to undertake site visits as part of exercise Revive.

Please see appendix 2 for further details.

A Firm Load Shedding contact proforma sheet must be completed for every consumer that is contacted.

All customers must be advised that the call is part of Exercise Revive and that they should not actually cease taking gas.

Public Appeal is not being tested during exercise Revive. The exercise scenario will assume that Public Appeal will have taken place during Stage 3.

7.2 Stage 4 - Isolation

When Stage 4 Allocation and Isolation is declared by the NEC the DNCCs will be asked to submit the relevant Distribution Network Isolation plans required in order to achieve the requested demand reductions across all LDZs.

Network Isolation Forecasts NET5R(A) and Network Isolation Plans NET5R(B) must be submitted to the relevant DNCC within one and two hours respectively.

The DNCCs will be asked to submit a DN Situation Report when the gas networks have stabilised. This will provide GNCC with details of the customer type, size and quantity that have been interrupted, firm load shed or isolated, details of the areas isolated and details of available manpower for when stage 5 restoration is declared.

7.3 Stage 5 – Restoration

When Stage 5 Restoration is declared by the NEC the DNCCs will be asked to submit details of their Restoration Gas Requirements together with details of their Restoration Plans and Forecasts.

Please see appendix 6 for further information.

7.4 Reporting

Once the exercise is completed each Distribution Network should produce a report detailing any problems or observations associated with each process undertaken during the exercise.

In addition the Distribution Network should collate the following data sets and return them to the GNCC Emergency Planning Team. Each Distribution Network should aim to complete and submit the data within one week of the exercise and then complete and submit the written report within a further week. Contact details provided in appendix 8.

For ease of data collation and in order to maintain comparisons across years, Distribution Networks are requested to collate their firm load shedding and Large DN Loads data as detailed below:

Firm load shedding data:

Firm load shedding information should be provided in a similar format as utilised in exercise Reform. (Successful contact data analysis was been added in the final three columns). Summarise by LDZ and by Shipper as shown in the examples below:-

LDZ	Shipper	Calls	Unsuccessful Contacts	Can Turn off	Cannot Turn Off	% Unsuccessful Contacts	% Can Turn Off	% Cannot Turn Off	SOQ Can Turn Off	Total Site SOQ	% of Site SOQ Isolated	No of Successful Shipper Contacts	No of Successful DN Contacts	Total of Successful Contacts
TOTAL														

Shipper Performance Summary for Firm Load Shedding

Shipper	No. of Calls	No. of Unsuccessful Calls	No. Can Turn Off	No. Can't Turn Off	% Unsuccessful Contacts	% Can Turn Off	% Can't Turn Off	% Site SOQ Isolated

Network LDZ Summary of Firm Load Shedding

	LDZ 'A'		LDZ 'B'		LDZ 'C'		LDZ 'D'		LDZ 'E'	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Attempted Contacts										
Sites Where Contact Made										
Contact Details Incorrect										
Could Turn Off										
Could Not Turn Off										

The information provided in the above tables should show the results of firm load shedding achieved by telephone contact with the first 200 sites only.

Large DN Loads (>2mtpa <50mtpa) :

As a subset of the Firm load shedding information, Distribution Networks should also compile the following data relating to their Large DN Loads. As there is no requirement to visit sites during exercise Revive, Distribution Networks should predict the number of these sites that would be shed given the personnel available during an NGSE and the Distribution Networks existing plans.

LDZ	No. of Large DN loads	Total SOQ of Large DN Loads	No. of Large DN Loads shed by phone	SOQ of Large DN Loads shed by phone	No of Large DN Loads visited in exercise	SOQ of Large DN Loads shed by site visit in exercise	Predicted No. of Large DN Loads shed in 4hrs	Predicted SOQ of Large DN Loads shed in 4hrs	Predicted Time to deliver maximum load shed of Large DN Loads (mins)	Maximum Predicted No. of Large DN Loads shed	Maximum predicted SOQ of Large DN Loads shed

Additionally, please provide details of an appropriate contact in your organisation that can field any Shipper queries etc. These details will be included in an appendix to the exercise Revive report.

Please see appendix 7 for further guidelines on the reporting process.

8. SHIPPER RESPONSIBILITIES

Note – The National Grid website will contain only live data and **will not** be used for the publication of any information relating to exercise Revive.

8.1 Stage 1 - Emergency Interruption

Aim

The aim of this exercise is to establish:

- a) If a post 2011 interruptible end-user can be contacted successfully
- b) If a post 2011 interruptible end-user can stop using gas once contacted
- c) Timeliness and reporting accuracy

Responsibility

Once the NEC calls for Network Interruption, Shippers will be required to contact all their post 2011 interruptible end-users per DN to ask them whether or not they would be able to interrupt. This will involve just a few end-users in comparison with previous exercises, with the exception of Exercise Reform.

Shippers should commence contact with post 2011 interruptible end-users immediately and not wait for their portfolio to be issued by the DNs.

NOTE - Emergency Interruption also includes cessation of any storage injection.

The T/PM/E/1 states that Shippers should be able to contact their entire interruptible portfolio within 1 hour of receipt of the notice to interrupt.

Shippers should make ½ hourly updates to each relevant Distribution Network Control Centre (NGDN, SGN, NGN & WWU) advising them of the number of customers contacted so far and the reduction in demand that this represents.

Please see appendix 1 for further details.

All consumers must be advised that the call is part of Exercise Revive and that actual interruption of the site is not required.

8.2 Stage 2 – Declaration

For the purposes of exercise Revive:

Shippers **will not** be sent **Shipper2a** or **Shipper2b** forms to maximise terminal or storage supplies.

APX are not participating in the exercise and so **will not** be advised of the withdrawal of National Grid's participation on the OCM. This will be deemed to have been carried out at this stage.

Shippers are not required to take any physical actions.

8.3 Stage 3 – Firm Load Shedding

The relevant transporter(s) contact VLDMC firm loads and will issue a notification to Shippers of VLDMC load shedding (for info. only). More than one form may therefore be received by each shipper.

NOTE - Exercise Revive **will not** include the use of the **Shipper4** form by GNCC.

8.4 National Transmission System Consumers

After all the NTS Primary Network sites have been contacted for Interruption and/or Firm Loading Shedding purposes, the Shipper Liaison Team at GNCC will contact these NTS sites again to undertake a short NTS Consumer Survey. This survey will relate to response times for emergency directions and use of gas following GS(M)R Revocation. This will be the last active participation of NTS connected sites during Exercise Revive.

NTS Site Name:					
Nature of Business					
Estimated time taken to cease taking gas completely in an Emergency (GS(M)R)	15 mins	30 mins	45 mins	1 hour	Other (give mins)
Estimated time taken to get back to full gas load after GS(M)R Revocation Notification	15 mins	30 mins	45 mins	1 hour	Other (give mins)
Likelihood of site recommencing the use of gas immediately following a Gas Emergency (i.e. GS(M)R Revocation)					

In case of query, consumers should contact a member of the GNCC Emergency Planning Team (see Appendix 8 for details).

8.7 Reporting

Responsibility:

Following the exercise, produce a report detailing any problems or observations associated with each process that you were involved in and return it to the GNCC Emergency Planning Team. Contact details provided in appendix 8.

Please see appendix 7 for further guidelines on the reporting process.

9. SUPPLEMENTARY TRANSPORTER RESPONSIBILITIES

9.1 Stage 1 - Emergency Interruption

Once the GNCC has requested that Emergency Interruption needs to take place the Distribution Networks (DNs) will contact their Supplementary Transporters to advise them of the situation and request them to reduce their interruptible SOQ (if applicable) by the same percentage as at the appropriate Network.

The Transporters should calculate the reduction and provide the appropriate DN(s) with the kWh figure that this reduction represents.

Please see appendix 1 for further details.

All customers must be advised that the call is part of Exercise Revive and that they should not actually cease taking gas.

9.2 Stage 3 - Firm Load Shedding

Once the GNCC has requested Firm Load Shedding of end-users >25,000 tpa, the DNs will notify their Supplementary Transporters that they will also need to reduce their SOQ by the same percentage as at the appropriate Distribution Network.

The Transporters should calculate the reduction and provide the appropriate DN(s) with the kWh figure that this reduction represents.

To test their consumers contact details they should contact their consumers and provide hourly updates to the appropriate DN(s), on the amount of load shed by number of contacts made.

Please see appendix 2 for further details.

All customers must be advised that the call is part of Exercise Revive and that they should not actually cease taking gas.

9.3 Stage 4 - Isolation

Once the DNs have determined their Isolation Plans, they will notify any Supplementary Transporters that will be affected by those plans.

9.4 Reporting

Responsibility:

Following the exercise, produce a report detailing any problems or observations associated with each process that you were involved in and return it to the GNCC Emergency Planning Team. Contact details provided in appendix 8.

Please see appendix 7 for further guidelines on the reporting process.

10. INTERCONNECTOR OPERATOR RESPONSIBILITIES (BGE, IUK)

The Interconnectors will be notified of actions at each stage by GNCC. This section is only for operators, and relevant Interconnector Shippers.

10.1 Moffat Interconnector:

Moffat Interconnector will receive a **BGE** form from GNCC requesting information on the breakdown of the firm load and whether a Voluntary Firm Load reduction is available or required. Please reply ASAP.

In stage 1:

- BGE Shippers will receive **BGE1** form declaring emergency interruption required, operators will be copied in on this fax.
- The BGE Shippers are asked to re-nominate Interruptible load to zero **but for the purposes of this exercise re-nominations are not to be entered into Gemini.**

In stage 3:

- Moffat Interconnector will receive **BGE2** form requesting a reduction in their firm load.

In stage 4:

- Moffat Interconnector will receive a second **BGE2** form requesting a further reduction in firm load.

In stage 5:

- Moffat Interconnector will be contacted by GNCC regarding plans for restoration of demand and will receive BGE3 form(s).

Reporting

Following the exercise, produce a report detailing any problems or observations associated with each process that you were involved in and return it to the GNCC Emergency Planning Team. Contact details are provided in Appendix 8.

Please see appendix 7 for further guidelines on the reporting process.

REMINDER: For the purposes of this exercise no physical actions are required and re-nominations are not to be entered into the Gemini system.

10.2 Bacton Interconnector

In Stage 1:

- I(UK) Shippers will receive **IUK1** form declaring Emergency Interruption required. Operators will be copied in on this fax.

- The I(UK) Shippers are asked to re-nominate Interruptible load to zero **but for the purposes of this exercise re-nominations are not to be entered into Gemini.**

In Stage 3:

- Bacton Interconnector will receive **IUK2** requesting Firm Load Shedding and asked to submit a revised OPN

NOTE - Exercise Revive **will not** include the use of the **IUK3** form by GNCC as I(UK) and Shippers do not participate in Part B of the exercise.

11. LNG TERMINALS :

Isle of Grain, South Hook and Dragon LNG Terminals will be notified at each stage by GNCC.

LNG Terminals **will** receive an **LNG2a** form requesting details of what the maximum level of delivery to the NTS could be. Please respond within 30mins by faxing the completed form to GNCC.

LNG Terminals **will** receive an **LNG2b** form from GNCC and should respond with an updated DFN notice.

For the purposes of this exercise no physical actions are required.

12. STORAGE SITE RESPONSIBILITIES

Storage Sites will be notified of actions required by GNCC.

Storage sites **will** receive a **Storage1** form requesting Emergency Interruption of injection, in response please provide a revised zero nomination.

Storage sites **will** receive a **Storage2a** form that requests details of capability and current status. Please response within 30mins by faxing the completed form to GNCC.

Storage sites **will** receive a **Storage2b** form and should respond with an updated SFN notice.

Exercise Revive **will not** include the use of the **Storage3** form by GNCC as Storage Sites do not participate in Part B of the exercise.

For the purposes of this exercise no physical actions are required.

13. REPORTING

The NEC is required to produce a report for the HSE and the Gas Industry on the outcome of Emergency Exercise Revive.

This report will contain the views of all parties involved and will contain recommendations from the HSE and NEC on any improvements that are required to the process.

It is, therefore, important that all parties participating in Exercise Revive produce a report detailing their observations and findings. Guidelines for producing an Exercise Report can be found in Appendix 7.

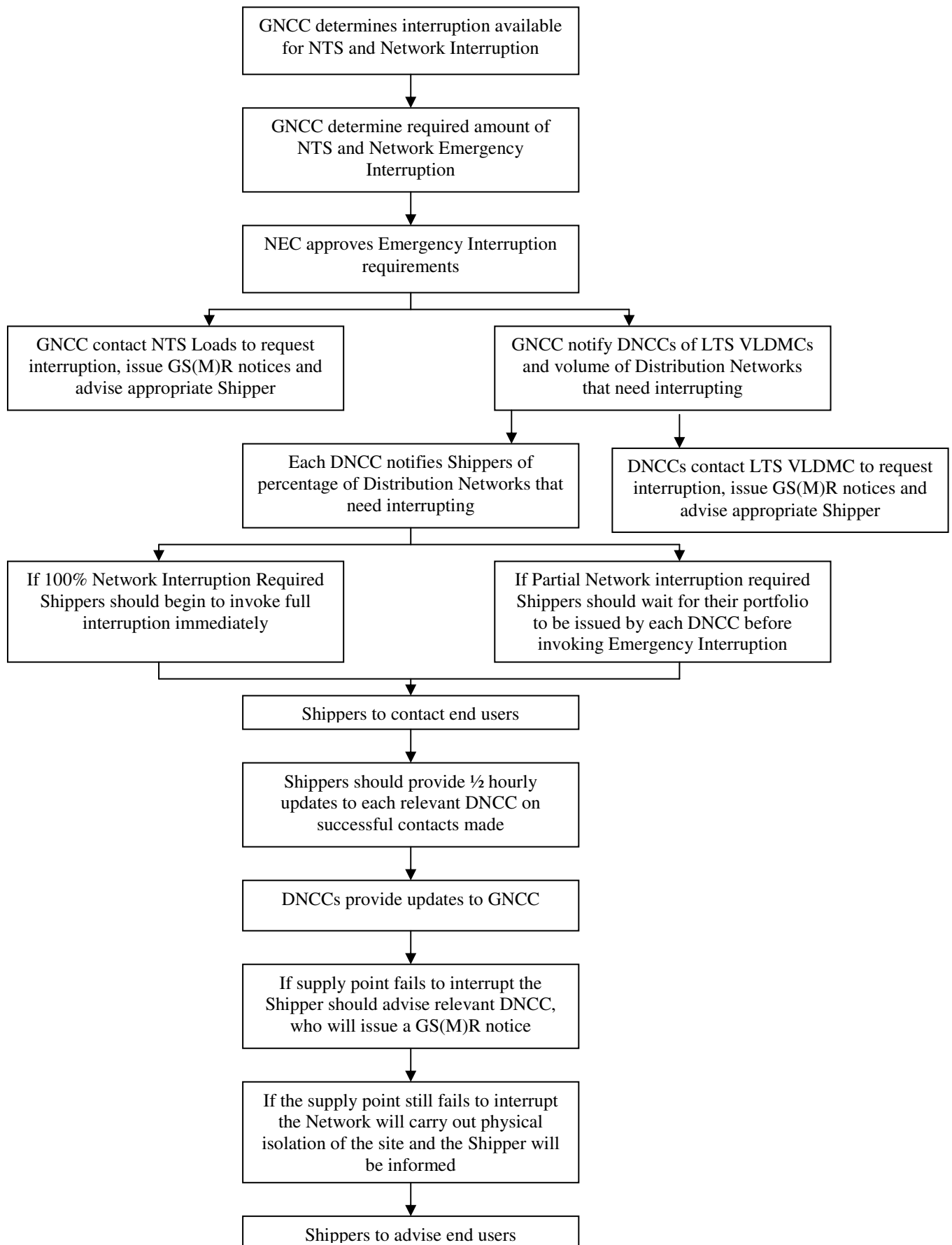
After the exercise has been completed it is critical that all parties submit their reports to the NEC as soon as possible, as the NEC is required to produce a first full draft to the HSE within four weeks of the completion of the exercise.

If specific parties wish to know their individual results from the NEC, then they should send a request in writing to the GNCC Emergency Planning Team.

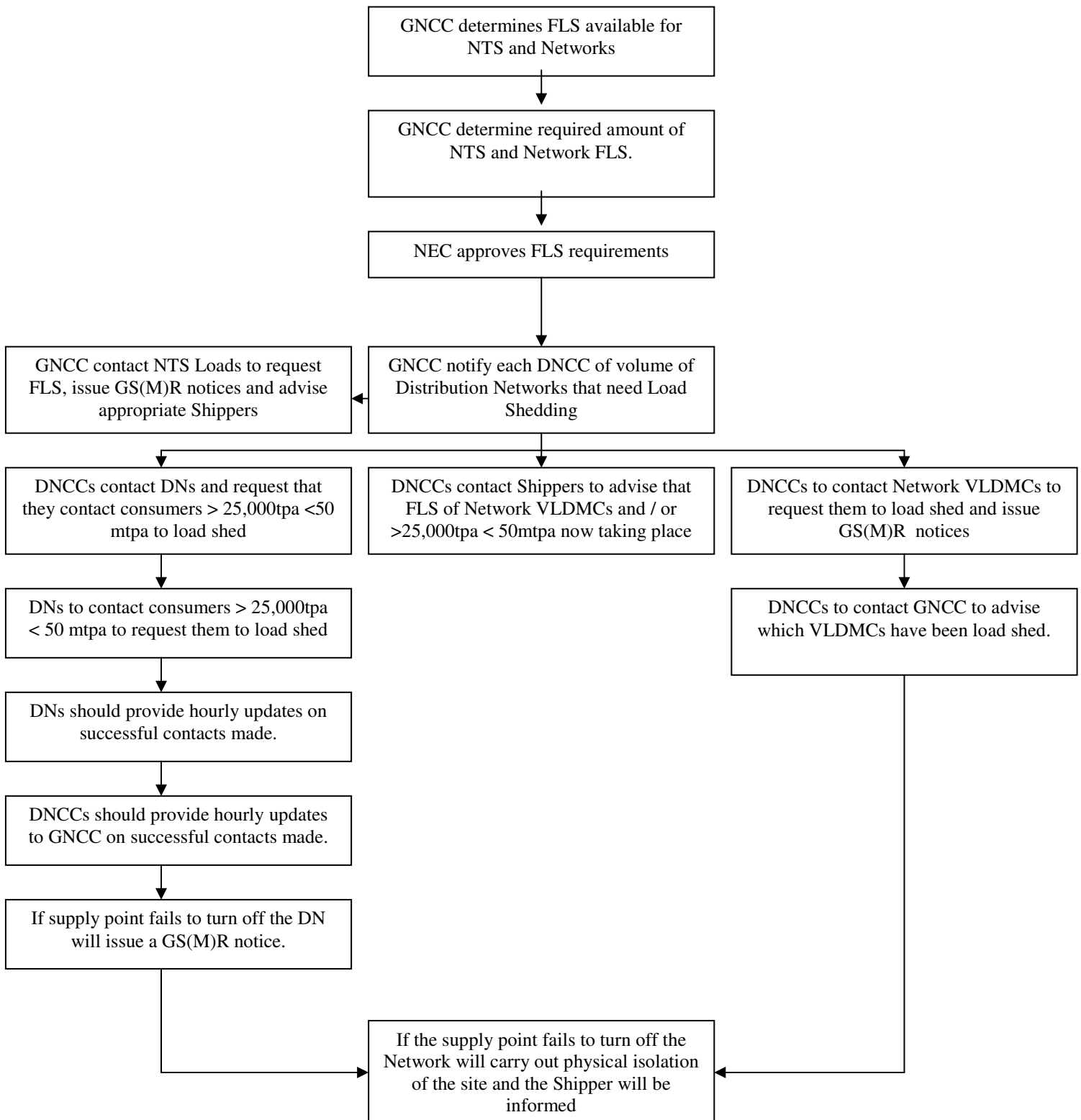
Note - The HSE will subsequently publish a copy of the NEC's Final exercise report to their website.

14. Appendices

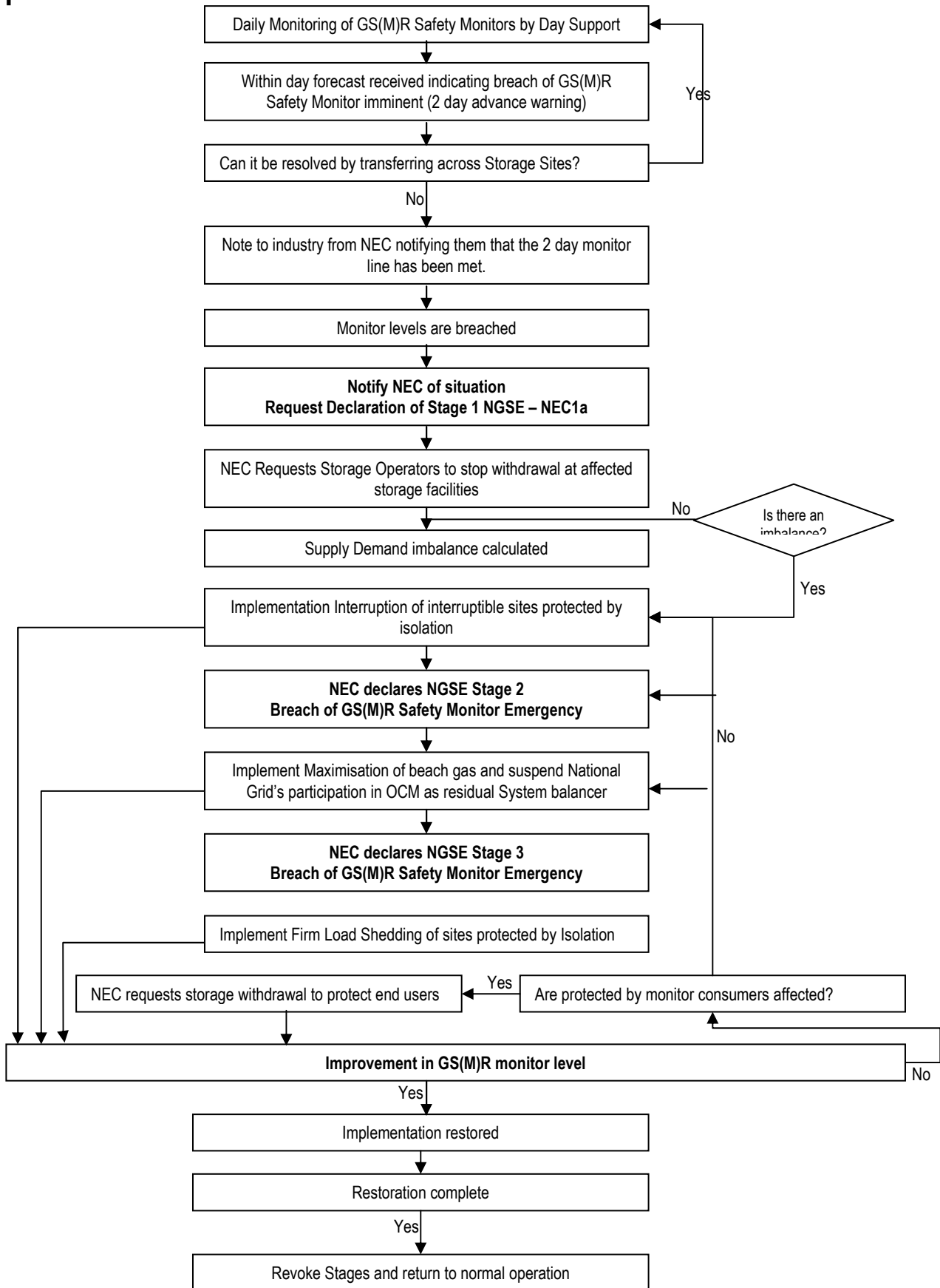
Appendix 1 – Flow chart detailing Emergency Interruption process



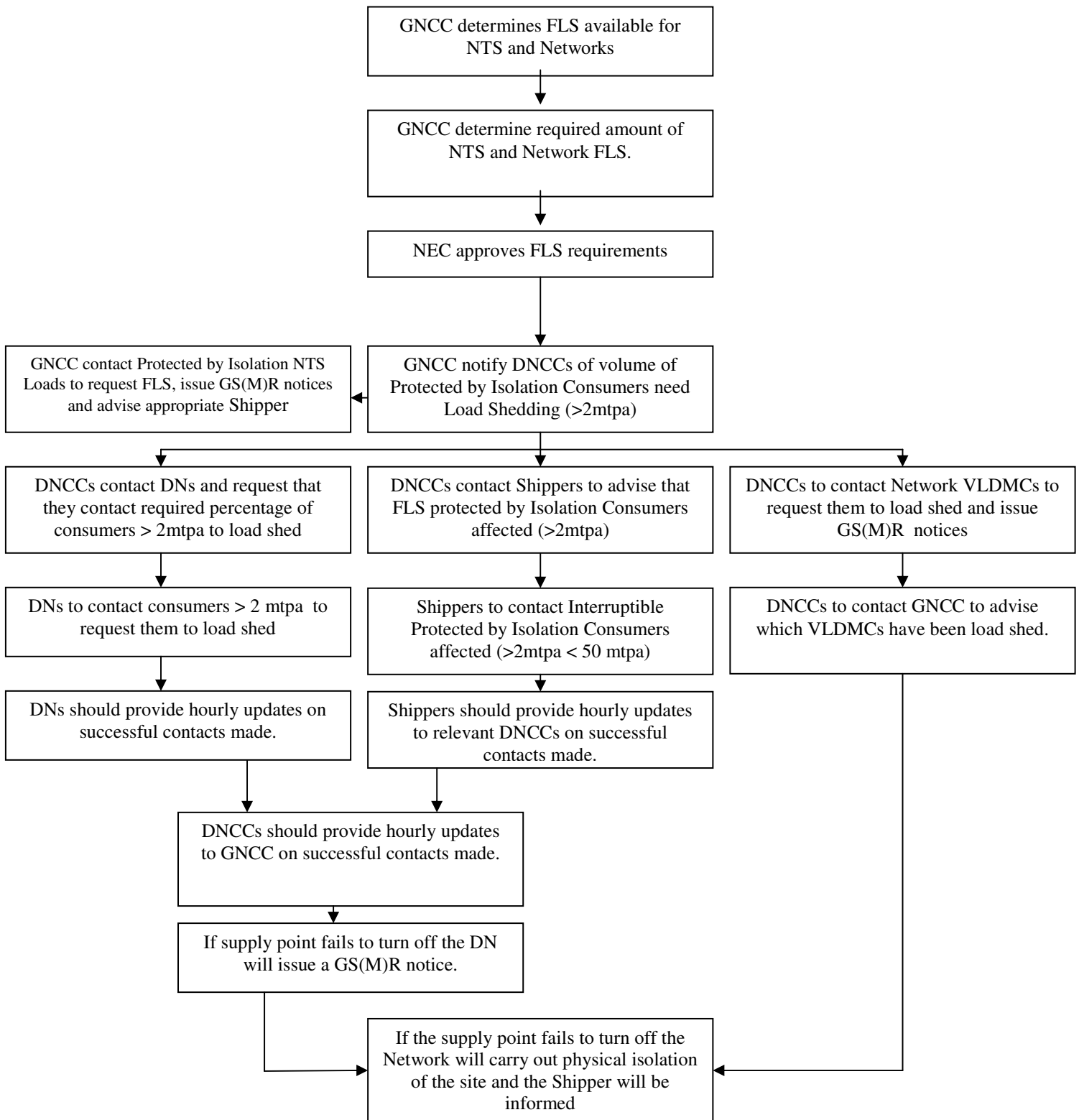
Appendix 2 – Flow chart detailing Gas Deficit – Insufficient Supplies Firm Load Shedding process



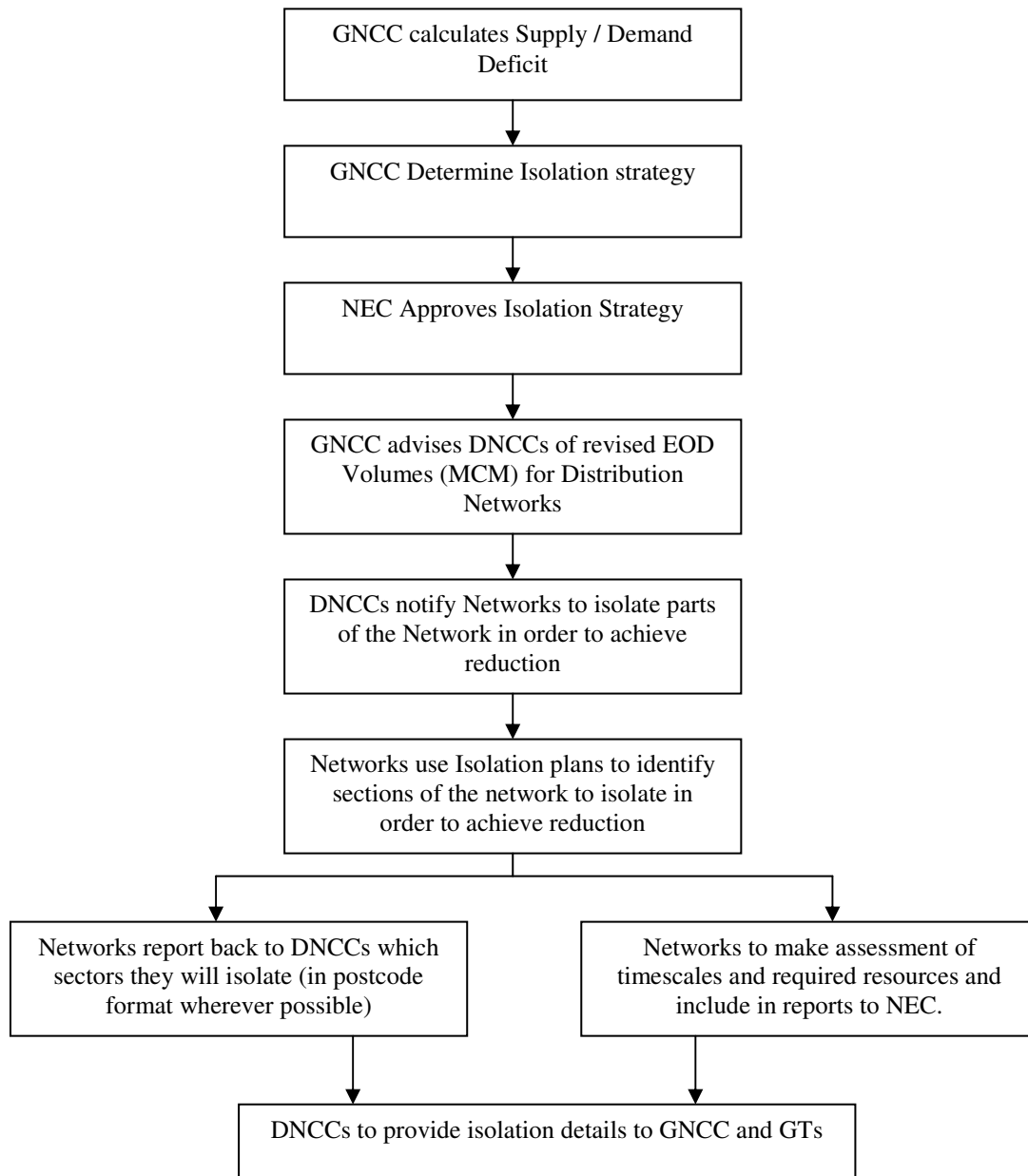
Appendix 3 – Flow chart detailing Gas Deficit – Breach of GS(M)R process



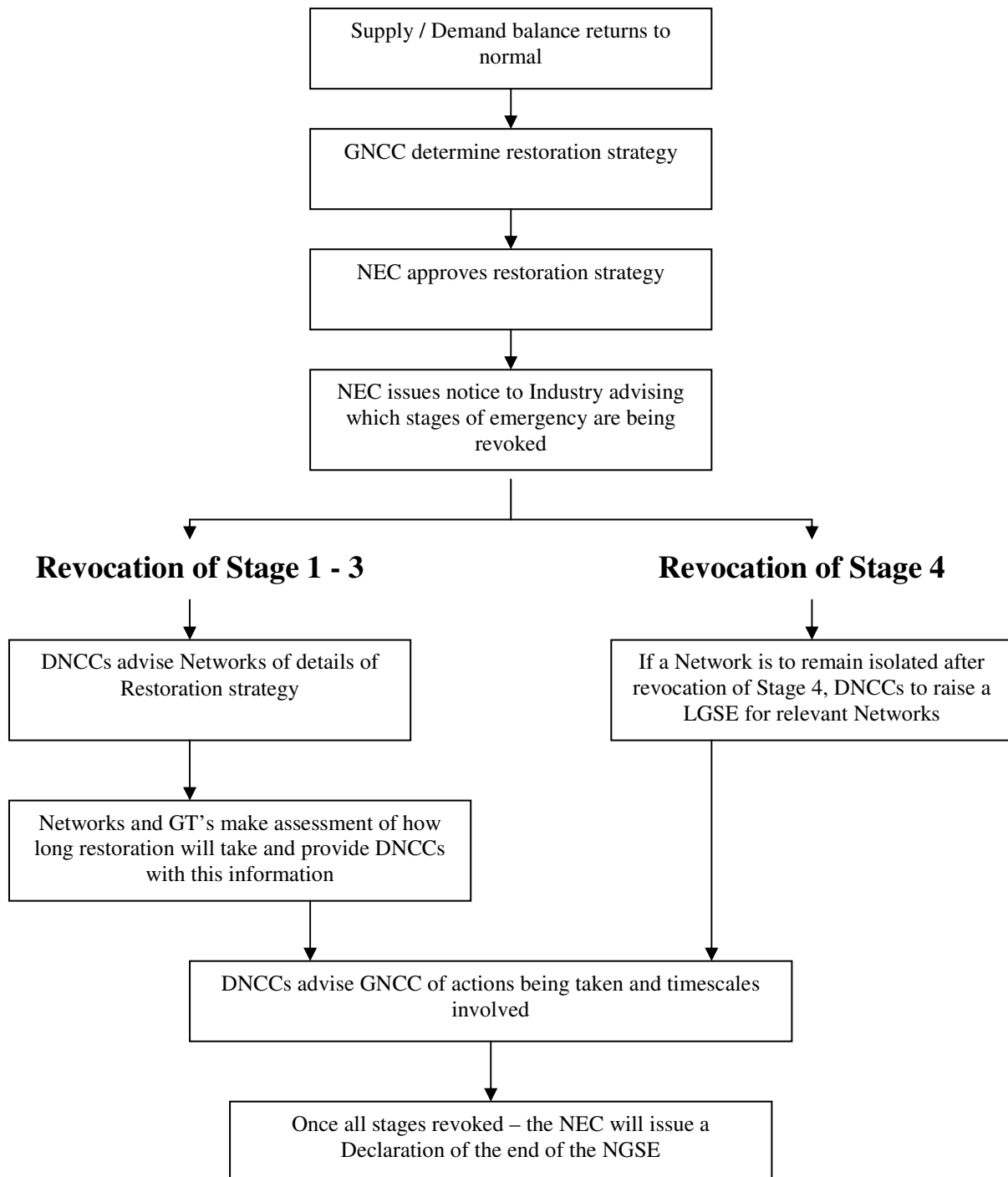
Appendix 4 – Flow chart detailing Gas Deficit – Breach of GS(M)R process Load shedding process



Appendix 5 – Flow chart detailing Isolation process



Appendix 6 – Flow chart detailing Restoration process



Appendix 7 - Guidelines for producing a report on Exercise Revive

Each party involved in Exercise Revive should, where possible, appoint an observer to oversee all parts of the exercise in which they are involved or alternatively a log keeper to keep records of each stage of the process.

A report should then be produced and sent to the GNCC Emergency Planning Team at: gasops.emergencyplanning@uk.ngrid.com within a week of the exercise itself.

The GNCC Emergency Planning Team will use your comments to produce an overall report for the HSE on how the Emergency Procedures were implemented and will need to include any problems that are encountered during the exercise and any actions that may be required as a result.

The following guidelines are for use by the Observers/Log Keepers for Exercise Revive.

The report should clearly identify which party you represent, each stage of the emergency that you were involved in and its associated comments.

On the following page you will find a report proforma for use during the Exercise.

The following is a list of things that should be observed/reported on during each stage of the exercise: -

Whether the correct procedures were adhered to during each stage.

Whether the notification method was correct according to the procedures.

Whether the information provided in any correspondence was legible and easy to understand.

Whether there was any confusion over what actions were required.

Whether or not there were enough people to implement the procedures required.

If the equipment was suitable for the job – was there enough equipment.

Ascertain the time taken to calculate the information required.

Ascertain whether the speed of response from the parties involved was reasonable.

If the Systems (including spreadsheets etc) were suitable for purpose.

You may also wish to include any recommendations that you may have to improve any part of the Emergency process

Report Proforma

Name of Observer:

Representing (Shipper name, NMU, transporters name, etc):

Stage of Emergency:

Process:

Observations:

Recommendations for Improvement to process:

Appendix 8 - National Grid, GNCC Emergency Planning Team contact details

Should you have any queries regarding Exercise Revive, please contact us on the numbers below: -

Paul Youngman – Emergency Planning Manager (GNCC)

Tel: 01926 654151

E-Mail: Paul.Youngman@uk.ngrid.com

or

gasops.emergencyplanning@uk.ngrid.com

Claire Baldwin – Principal Operations Engineer

Tel: 01926 653232

E-Mail: Claire.J.Baldwin@uk.ngrid.com

Lynn Crooks – Operations Engineer

Tel: 01926 653223

E-Mail: Lynn.Crooks@uk.ngrid.com