DECC Approach to Dealing With Pandemic Illness in the Upstream Energy Sector

Executive Summary

Initial Phase (Until 10-15% Absences Offshore) and Low Impact (Until 25-30% Absences): Sporadic cases/ limited local outbreaks. Public concern arising from media reporting, possible disruption to international travel and school closures but no significant or sustained impact on services and business capacity in the wider economy. Increase in staff absence due to sickness. The DECC Alert Status is at **WHITE**.

Once the 10-15% threshold is reached, consideration will be given by DECC to introducing monitoring of platform/terminal status and offshore workforce movements. A key factor in this decision will be whether absences are still increasing at this point. The DECC Alert Status will remain at **WHITE**. At the point absences reach 25-30%, the DECC upstream emergency alert status will change from **WHITE** to **BLACK** to facilitate reasonable sharing of information between companies without raising competition concerns. Terminals will prepare situation reports that describe their expected production volumes over the coming days. DECC will monitor daily changes in platform/terminal status that are notified by operators on an "Exception Reporting" (i.e. significant change in status)

Moderate Impact (Absences Above 30-35%): The assessment of industry is that it should be able to cope with absences of up to 30% for a few weeks without major disruptions to energy supplies. After that, potential disruption to general supplies if peak staff absence coincides with technical or whether related supply difficulties. DECC will encourage industry to share or transfer resources where possible. Industry will consider further contingency actions (e.g. halting all non-essential work). Although regulators would use the flexibility that is permitted in the relevant regulations, there are certain requirements that must be achieved (such as an adequate number of staff in key roles for health and safety purposes).

High Impact Absences (Approaching or Above 45-50%): With widespread severe, debilitating illness throughout the UK and transport, schools, shops affected by sickness and family care absences, there is an emphasis on maintaining supplies and staffing. There is the possibility of suspending of operations on non-critical platforms. The risk of gas shortages and the declaration of a Gas Deficit Emergency by the NEC becomes increasingly likely. The DECC Alert Status would be set accordingly to **AMBER** or **RED** and National Gas Balancing Action taken. In extreme circumstances a Network Gas Emergency may be declared and Emergency Powers invoked under the Energy Act 1976.

1. Likely Phases of a Pandemic and Effect on Upstream Gas Supplies

DECC Upstream Oil and Gas covers offshore oil and gas infrastructure including oil and gas platforms, gas storage facilities, gas interconnectors and beach gas terminals and pipelines. It is clearly necessary to have a contingency plan for the situation where absences caused by pandemic disease are significantly high, or if there are clusters of illness that have a disproportionate effect on the upstream energy industry.

Pandemic planning for upstream activities is coordinated through the Upstream Pandemic Steering Group[1] chaired by the trade association Oil & Gas UK (OGUK) along with DECC officials, key industry partners, helicopter flight services and medical providers. This note summarises the likely actions to be taken and possible mitigating measures in such a case. As its basis, it draws upon work carried out in response to the threat of a Pandemic Influenza outbreak in 2011. Outbreaks of other forms of pandemic illness will have different characteristics, and therefore different planning assumptions.

According to the Department of Health (DH) "UK Influenza Pandemic Preparedness Strategy 2011", an influenza pandemic will progress through four phases. This section describes the likely DECC Upstream response at various levels of absence;

1. Initial Phase (Until 10-15% Absences)
2. Low Impact (Until 25-30% Absences)
3. Moderate Impact (Absences Above 30-35%)
4. High Impact (Absences Approaching or Above 45-50%)

The upstream energy industry has indicated that it should be able to cope with absences of up to 30% for a few weeks without major disruptions to energy supplies. However, the precise figure will vary from operator to operator, and the condition of the supply network. Operators will also have to make a distinction between TOTAL ABSENCES and ABSENCES OF ESSENTIAL EMPLOYEES.

This section describes the likely DECC Upstream response at various levels of absence. More general information about the medical, economic and social situation in the country as a whole is shown in Annex A. This should be treated only as indicative, as there is considerable uncertainty about the level of absence that would trigger a gas emergency.

1.1 Initial Phase (Support/Early Warning) – Until Absences Reach 10-15%)

The DECC Alert Status will remain at **WHITE**.

However it should also be noted that given the importance of the upstream oil and gas sector to the overall UK economy and society, and the particular vulnerabilities- especially of off-shore work indicated by the DH guidance, DECC will be working in collaboration with industry to monitor absences and undertake contingency planning during an earlier Phase of the pandemic to that suggested in the DH strategy as being appropriate for wider society.

[1]Pandemic planning for Downstream Gas and Electricity and the Nuclear sectors will be coordinated by the industry chaired Energy Emergencies Executive Committee (E3C) Pandemic Steering Group, and within the downstream oil industry through the Downstream Oil Industries Forum (DOIF)

To understand the levels of H1N1 cases experienced by the energy sector in 2009, a pandemic flu absence monitoring system was developed with National Grid and the "Big Six" energy companies (British Gas, EDF Energy, E.ON Energy, npower, Scottish Power and SSE). This comprised weekly reports of influenza-like-illness (ILI) absence levels experienced in each company, whose geographical spread across the UK was likely to be representative of the absences being experienced across the whole energy sector. DECC Upstream will maintain its own contacts with upstream operating companies.

DECC will work closely with industry and Oil and Gas UK (OGUK), through the Upstream Pandemic Steering Group to develop and agree a common industry approach towards the management of pandemic flu issues. This includes identifying critical workers and minimum manning levels, securing the supply chain, and sustaining helicopter operations.

Once the 10-15% threshold is reached, consideration will be given by DECC to introducing monitoring of platform/terminal status and offshore workforce movements (see 4 below). A key factor in this decision will be whether absences are still increasing at this point.

1.2 Low Impact Phase (Monitoring/Sharing Information – Until Absences Reach 25-30%)

At this point, the DECC upstream emergency alert status will change from WHITE to BLACK. This will facilitate reasonable sharing of information between companies without raising competition concerns.

DECC will monitor daily changes in platform/terminal status that are notified by operators on an "Exception Reporting" (i.e. significant change in status) basis using the Form shown at Annex B. The main purpose of this monitoring is to give advance warning of emerging problems across the industry.

Terminals will prepare situation reports that describe their expected production volumes over the coming days, and regular teleconferences between the DECC Upstream Joint Response Team (UJRT), the National Grid (NG) and Terminal Group Leaders (TGLs). The existing DECC Upstream Crisis Management Plan (UCMP) is described at:

https://www.gov.uk/preparing-for-and-responding-to-energy-emergencies

It is expected that resources could become tight in this phase, especially as absences approach 25-30%. DECC will encourage industry to share or transfer resources where possible (see 5).

1.3 Moderate Impact Phase -Absences Above 30-35%

The assessment of offshore industry production and terminal operators, contractors, and supply chain companies is that while it should be able to cope with absences of up to 30% over a one month period, most operators could continue steady state production with limited production losses in a few cases, and without major disruptions to energy supplies. Prolonged absences above this level would be problematic.

During a Pandemic Influenza situation, the provisions in the UCMP for dealing with a Potential Gas Deficit Emergencies would start at this Trigger Point, with the declaration of **AMBER** Alert Status actions by NG and industry. In reality, however, the escalation in Alert Status may not be required until absence levels are much higher.

During the Moderate Impact Phase, DECC, NG and Industry will continue to share information and take action to implement emergency measures as required. DECC will encourage industry to share or transfer resources where possible (see Section 5). Industry will consider further contingency actions (e.g. halting all non-essential work). It may be necessary to curtail activities at non-essential platforms (e.g. exploration) and available resources would support those platforms deemed critical to the continued production of oil and gas. Routine maintenance will be afforded a lower level of priority if there are staffing shortfalls. However, essential repairs are expected to continue.

1.4 High Impact Phase – Absences Approaching or Above 45-50%

At 50% staff absences the impact was found to be more severe and some production may have to be curtailed with consequent effects on supply. As absences approach 45-50%, the risk of gas shortages and the declaration of a Gas Deficit Emergency by the Network Emergency Coordinator (NEC) becomes increasingly likely. The DECC Alert Status would be set accordingly to **AMBER** or **RED**, and actions undertaken under the UCMP.

There is the possibility of suspending of operations on non-critical platforms

1.5 National Gas Balancing Action

During the Moderate and/or High Impact Phases, depending on the severity of the emergency and its effects on the gas supply, a DECC Emergency Response Team (ERT) may be formed led by a DECC Co-ordinating Group (DCG) and including the UJRT, a Downstream Joint Response Team (DJRT) and other sector specific teams as appropriate.

Actions during this phase include seeking the production of Emergency Specification Gas, making use of National Transportation System (NTS) Linepack and distribution network utilisation.

If this was unsuccessful, the NEC and NG would implement gas balancing action including downstream allocation and isolation in the event of continued supply shortfall, in collaboration with DECC DJRT.

Further details are given here:

https://www.gov.uk/preparing-for-and-responding-to-energy-emergencies

Although it is unlikely that Emergency Powers under the Energy Act 1976 would be used in the absence of a declared Network Gas Emergency (see 2.5), the potential need for them would be under consideration by DECC during the Moderate and High Impact Phases.

1.6 Network Emergency Co-ordinator (NEC) Emergency Levels

In normal circumstances, the DECC Alert Status roughly conforms to the NEC Emergency Stage as follows;

NEC Emergency Stage	DECC Alert Status
Pre-Declaration of Emergency	**WHITE**
	BLACK
Stage 1 **Potential Gas Deficit Emergency**	**AMBER**
Stage 2 **Imminent Gas Deficit Emergency**	**RED**
Stage 3 **Gas Deficit Emergency**	
Stage 4 **Restoration**	**BLACK**
	WHITE

In the event of staff shortages caused by pandemic illness, the continuation of the gas supply may not be significantly affected. Therefore it is possible that the DECC response under the UCMP may take place in the absence of any declaration of an Emergency Stage by the NEC, or even without the necessity to raise the DECC Alert Status above **BLACK**

A Potential Gas Deficit Emergency would be declared by the NG appointed Network Emergency Co-ordinator (NEC) after the consideration of a number of factors. It could conceivably occur at lower levels of absence during a cold period in the middle of winter when there are other supply disruptions. Alternatively, due to the nature and distribution of absences caused by the disruption, a loss of helicopter transport may not necessarily lead to a loss of gas supply at all.

If the NEC declares a Gas Deficit Emergency, DECC would adjust its Alert Status to **RED**. DECC UJRT may consider whether an Order In Council (OIC) for Emergency Powers under the Energy Act 1976 should be sought. These powers would be used to direct operators of less critical gas producing platforms to cease their operation on the assumption that usable resources would become available to higher gas producing platforms. This decision would not be taken lightly and would need to take account of the transferability of resources (including key staff) between platforms. More information on the use of emergency powers is given in Section 6.

2. Critical Platforms and Terminals

Under existing gas supply emergency and crisis management procedures, terminals are organised into the following groups for reporting purposes at **BLACK** Alert Status and above. Each Terminal group comes under a Terminal Group Leader (TGL), the conduit for all communications between the JRT and the Upstream Industry Coordination Group (UICG). Groups have been arranged to minimise commercial conflict through exposure of confidential information.

BP	Shell	Centrica	GASSCO	National Grid LNG LNG
Sullom Voe (BP) Seal Sands (ConocoPhillips) Dimlington (Perenco) Kinneil / Forties Pipeline System (BP) Teesside (BP, PX Ltd and GasPort LNG) Theddlethorpe (ConocoPhillips) Wytch Farm (Perenco) Easington Rough and York Flotta (Talisman Sinopec), Nigg (Ithaca)	St Fergus (Shell) St Fergus (TOTAL) St Fergus (Apache) Bacton (Shell) Bacton (BBL) Bacton (Perenco) Bacton Interconnector (IUK)	Barrow /Morecambe (Centrica HRL) Point of Ayr (BHP Billiton) / Burton Point (E.On)	Langeled Imports	National Grid Isle of Grain LNG South Hook LNG Milford Haven Dragon LNG Milford Haven

Offshore platforms have been subdivided by DECC into the following categories:

Criticality	Gas production, million cubic metres per day	Number of manned platforms
High	More than 10	20
Medium	2 to 10	21
Low	Less than 2	62

This will initially be used by DECC for rough screening purposes, although particular cases would be reassessed in extreme conditions, e.g. if consideration were being given to the use of emergency powers.

If operators wish to satisfy themselves that requests to share resources are justified, recent gas production can be used as an indication of the volumes that can be expected this winter. Gas production volumes from all fields are available from the UK Government website at:

https://www.gov.uk/oil-and-gas-uk-field-data

3. Platform/Terminal status and Offshore workforce movements

Once absences pass 10-15%, platform and terminal operators will be asked to notify DECC when they identify a significant change of status. The status definitions and report pro-forma are shown in Annex B and will be available to the normal emergency contact(s) for each operator via the Oil Portal.

Offshore workforce movements will be monitored using daily reports received from Vantage POB, and there is no need for any other action on this aspect by industry.

OGUK findings from 2009 suggest that even if helicopter companies were subject to 50% staff losses, they should still be able to provide sufficient seats for the minimum manning levels needed to continue oil and gas production. The Department of Health had agreed that helicopter crews and offshore medical staff would also qualify for priority vaccination, if it became necessary.

4. Resource levels and sharing of resources

It is expected that operators will seek to ensure stock/supply levels are replenished in good time so as to maximise resilience in the case of shortages subsequently occurring. There may also be opportunities to train additional back-up staff prior to a pandemic, although clearly it may be difficult to do this within a short space of time for certain key roles. There is a strong incentive for the larger gas producers to provide generous stock levels and numbers of back-up staff, in view of the high throughput (and hence income) that they manage.

It is also expected that operators would share resources where this is reasonable to do so. For certain key staff, it may not be safe or feasible (from considerations of liability or insurance) to transfer personnel between companies. Dialogue on the possible transfer of staff between operators will need to take this into account, and it may be necessary for operators to shut down platforms if a satisfactory solution cannot be found. In the event that supply chain companies are unable to meet demand, the operator should contact other operators. DECC and OGUK are available to assist with dialogue between operators if required.

5. Compliance With Regulations

5.1 Reasonable Sharing of Information

Following the fuel protests in 2000, a jointly managed approach was agreed with Industry to mitigate the potential effects of a significant disruption or threat of a significant disruption to gas supplies to the National Transmission System (NTS) and/or crude oil to refineries.

The agreement was formalised in an MOU dated 1 November 2000 in respect of disruption to crude oil and natural gas (“the Upstream MOU”). Industry signatories to the Upstream MoU form the Upstream Industry Coordination Group (UICG).

The Upstream MOU recognised DECC's responsibility for overall planning and strategy, and that in the event of a significant disruption or threat of significant disruption to normal flow, the UK Government may, under the appropriate legislation, require that the production and treatment of crude oil and natural gas be managed in such a way as to maintain the supply of natural gas to the NTS and crude oil to refineries.

Concern was expressed that the supply of commercially privileged information to members of the UICG raised competition issues especially if one or all of the members used that information for the companies' commercial benefit. Since that time, the Competition Act 1998 has been amended, such that certain types of agreements are automatically exempt from the general prohibition if they fulfil the criteria set out in section 9 of that Act. It is DECC's view that the Upstream MOU is likely to fall within this exemption.

Further information can be found in Annex E of the DECC Upstream Crisis Management Briefing Pack (UCMBP).

https://www.gov.uk/preparing-for-and-responding-to-energy-emergencies#upstream-oil-and-gas

5.2 Offshore Operations

The relevant regulators for the offshore Oil and Gas Industry are the Health and Safety Executive (HSE), DECC (for offshore environmental matters) and the Environment Agency (EA)/Scottish Environmental Protection Agency (SEPA) for onshore environmental matters. These regulators would use the flexibility that is permitted in the relevant regulations (for example, relaxation of the Working Time Directive enabling operators to make the best use of limited available resources), but may themselves be subject to staff shortages that would limit their routine activity. However, there are certain requirements that must be achieved (such as an adequate number of staff in key roles for health and safety purposes).

The operator needs to ensure that they continue to meet regulatory requirements, and dialogue on subjects such as the sharing of resources needs to take this into account.

http://www.hse.gov.uk/offshore/index.htm
http://www.hse.gov.uk/pubns/indg219.pdf
https://www.gov.uk/government/policies/providing-regulation-and-licensing-of-energy-industries-and-infrastructure/supporting-pages/environmental-regulation-of-offshore-oil-gas-and-carbon-dioxide-storage-activities
http://www.environment-agency.gov.uk/business/sectors/117147.aspx
https://www.gov.uk/oil-and-gas-onshore-exploration-and-production

6. Use of Emergency Powers

When DECC is considering the issue of a Direction or Order under the Energy Act 1976, the proposed recipient will be consulted as soon as possible. If DECC warns an operator of the possibility of such a Direction or Order, or if (due to the circumstances of the incident) they receive one without consultation, they should consider whether there are legal, regulatory or contractual provisions that constitute a reasonable excuse for not complying. If so, they should notify DECC as soon as possible, identifying the reasons as precisely as possible. It may be that DECC will be able and willing to amend its Order/Direction, or issue an Authority to disregard those provisions. Otherwise failure to comply with a Direction, Order or Authority is a criminal offence. It is also a criminal offence to wilfully obstruct any person performing a duty imposed by such a Direction, Order or Authority.

DECC does not currently believe that a properly-used order/authority creates a case for a party to claim compensation from Her Majesty's Government. There is no specific provision in the Act for the payment of compensation by HM Government unless the Direction, Order or Authority is unlawful.

Emergency regulations may also be introduced under the provision of the *Civil Contingencies Act 2004*

http://www.legislation.gov.uk/ukpga/2004/36/contents

7. Further Information on Infectious Diseases

The Department of Health (DH), NHS England, and the Health Protection Agency (HPA) websites provide general information about infectious diseases and other aspects of emergency preparedness resilience and response.

https://www.gov.uk/government/policies/planning-for-health-emergencies#actions
http://www.england.nhs.uk/ourwork/gov/eprr/
http://www.hpa.org.uk/Topics/InfectiousDiseases/
http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/

Further information can be downloaded from the European Centre for Disease Control and Prevention (ECDC) and the World Health Organisation (WHO).

http://www.ecdc.europa.eu/en/press/news/Pages/News.aspx
http://www.ecdc.europa.eu/en/press/epidemiological_updates/Pages/epidemiological_updates.aspx
http://www.who.int/csr/don/en/index.html

These organisations provide additional information regarding particular diseases and the progress of and response to specific outbreaks that either affect or have the potential to affect the UK.

- Health Protection Agency (HPA) [Part of Public Health England]
  http://www.hpa.org.uk/Topics/InfectiousDiseases/

- Health Protection Scotland
  http://www.hps.scot.nhs.uk/about/index.aspx

- Scottish Government

http://www.scotland.gov.uk/Topics/Health

- Department of Health (DH)
https://www.gov.uk/government/policies/planning-for-health-emergencies

- European Centre for Disease Prevention and Control (ECDC)
http://www.ecdc.europa.eu/en/healthtopics/Pages/health_topics_disease_group.aspx
http://www.ecdc.europa.eu/en/healthtopics/Pages/health_topics_A_Z.aspx

- World Health Organisation
http://www.who.int/topics/infectious_diseases/en/
http://www.who.int/topics/en/

7.1 Further Information on Influenza

The links below cover *Seasonal Influenza*

http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/
http://www.hps.scot.nhs.uk/resp/influenza.aspx?subjectid=95
http://www.hps.scot.nhs.uk/resp/seasonalInfluenza.aspx
http://www.hps.scot.nhs.uk/resp/avianinfluenza.aspx
http://www.hps.scot.nhs.uk/resp/pandemich1n12009.aspx
http://www.hps.scot.nhs.uk/resp/pandemicinfluenzaplanning.aspx
http://www.scotland.gov.uk/Publications/2007/11/21141855/0
http://www.scotland.gov.uk/Resource/Doc/924/0054442.pdf

In relation to the possibility of an outbreak of Pandemic Influenza, the HPA Pandemic Influenza Strategic Framework describes the HPA's strategic roles and actions for preparation and response to an influenza pandemic and the Agency's responsibilities in the context of the Department of Health's *UK Influenza Pandemic Influenza Strategy 2011*.

http://www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1214291244122
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317136751220

The UK Pandemic Preparedness Strategy 2011 describes the Government's strategic approach for responding to an influenza pandemic

https://www.gov.uk/pandemic-flu
https://www.gov.uk/government/publications/responding-to-a-uk-flu-pandemic
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/134747/dh_131040.pdf.pdf

The ECDC provides information on Pandemic, Seasonal, Avian and Swine influenza.

http://www.ecdc.europa.eu/en/healthtopics/influenza/pages/index.aspx
http://ecdc.europa.eu/EN/HEALTHTOPICS/PANDEMIC_PREPAREDNESS/Pages/index.aspx
http://ecdc.europa.eu/en/healthtopics/seasonal_influenza/Pages/index.aspx
http://ecdc.europa.eu/en/healthtopics/avian_influenza/Pages/index.aspx
http://ecdc.europa.eu/en/healthtopics/swine_influenza/Pages/index.aspx

The WHO has developed a global influenza preparedness plan, which defines the responsibilities of WHO and national authorities in case of an influenza pandemic;

http://www.who.int/influenza/en/
http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5.pdf
http://www.who.int/influenza/pip/en/
http://www.who.int/influenza/resources/pip_framework/en/index.html
http://whqlibdoc.who.int/publications/2011/9789241503082_eng.pdf

7.2 Planning Assumptions for Pandemic Influenza

According to the Department of Health (DH) "*UK Influenza Pandemic Preparedness Strategy 2011*", additional plans over and above those for seasonal influenza are required for a possible pandemic influenza. An influenza pandemic may include the following features;

- An influenza pandemic could emerge at anytime, anywhere in the world, including the UK. It could emerge at any time of the year. Regardless of where or when it emerges, it is likely to reach the UK very quickly....
- From arrival in the UK, it will probably be a further one to two weeks until sporadic cases and small clusters of disease are occurring across the country
- Initially, pandemic influenza activity in the UK may last for three to five months, depending on the season. There may be substantial subsequent activity weeks or months apart, even after the World Health Organisation (WHO) has declared the pandemic to be over....
- Although it is not possible to predict in advance what proportion of the population will become infected with the new virus, previous studies suggest that roughly 50% of all people may display symptoms of some kind (ranging from mild to severe...minor symptoms to pneumonia and death)
- Health services should continue to prepare for up to 30% of symptomatic patients requiring assessment and treatment. Between 1% and 4% of symptomatic patients will require hospital care, depending on how severe the illness caused by the virus is...The analysis remains that up to 2.5% of those with symptoms would die as a result of influenza if no treatment proved effective...possibly over as little as a 15 week period and perhaps half of these over three weeks at the height of the outbreak
- All ages are likely to be affected but...otherwise fit younger adults could be at greater risk
- The incubation period will be in the range of one to four days (typically two to three). Adults are infectious for up to five days from the onset of symptoms. Longer periods have been found....Some people can be infected, develop immunity, and have minimal or no symptoms but may still be able to pass on the virus

- Up to 50 % of the workforce may require time off at some stage over the entire period of the pandemic. In a widespread and severe pandemic, affecting 35-50 % of the population, this could be even higher as some with caring responsibilities will need additional time off.

- In a widespread and severe pandemic affecting 50% of the population, between 15% and 25% of staff may be absent on any given day. Organisations consisting of small teams who work in close proximity are likely to suffer higher percentages of staff absences, 30-35% on any given day

- Most people will return to normal activity within 7-10 days

- Additional staff absences are likely to result from other illnesses, taking time off to provide care for dependants, to look after children in the event of schools and nurseries closing, family bereavement, practical difficulties in getting to work and/or other psychosocial impacts

- Staff absence should follow the pandemic profile These levels of absence would be expected to remain similar for one to three weeks and then decline.

  https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/134747/dh_131040.pdf.pdf

7.3 Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

On 15 May 2013, Middle East Respiratory Syndrome Coronavirus (MERS-CoV) became the recommended name for what had previously been called the Novel Coronavirus since its discovery in September 2012 (in a patient who died from a severe respiratory infection in June 2012).

Human coronaviruses were first identified in the mid-1960s. They are a group of viruses that cause respiratory infections in humans and animals, with the potential for newly emerging zoonotic coronaviruses to transmit from person to person, especially in healthcare settings, and to cause severe human illness. The outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003, which led to 8,422 cases and 916 deaths worldwide, was one example of a Coronavirus. The MERS-CoV virus from the same family of conoraviruses as SARS, but is a different unconnected subtype.

As of 07 July 2013 there have been over than 80 laboratory confirmed cases detected globally – the majority of these in Saudi Arabia. 44 of these have been fatalities. However, this is a dynamic situation and more cases may be reported. In around half of the cases reported to date, the patients have died. There had been three deaths in the UK. For the latest case updates please refer to the WHO website.

Most cases of illness present with fever and cough that progress to a severe pneumonia causing shortness of breath and breathing difficulties. Renal problems have been a feature of some cases but at this point it is not clear whether this is a typical presentation. In small number of cases a diarrheal illness has been the first symptom to appear. Although most cases have been characterised by a severe illness, milder illness has been detected.

The primary source of infection is still not known. There is growing evidence that the infection is spread by the fine droplets created when people cough and sneeze, in common with many other respiratory viruses such as the cold virus and influenza.

So far there is only evidence of limited, non-sustained person-to-person transmission. If the virus was easily spread, we would have expected to see many more cases linked to people caring for cases or in contact with them

Further specific information is available from the following organisations;

- Department of Health
  https://www.gov.uk/government/news/middle-east-respiratory-syndrome-coronavirus-mers-cov-update

- Public Health England
  http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/MERSCoV/GeneralInformation/respqandanovelcoronavirus2013/
  http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/MERSCoV/Guidance/

- Health Protection Scotland
  http://www.hps.scot.nhs.uk/resp/coronavirus.aspx
  http://www.hps.scot.nhs.uk/resp/publicationsdetail.aspx?id=52826

- European Centre for Disease Control and Prevention
  http://www.ecdc.europa.eu/en/press/epidemiological_updates/Pages/epidemiological_updates.aspx

- World Health Organisation
  http://www.who.int/csr/disease/coronavirus_infections/en/index.html

ANNEX A

DECC Alert Status: WHITE	**Initial Phase (Support/Early Warning)**	**Pre-Declaration of Emergency by NEC**
Nature and Scale of Illness	**Impact on Wider Society**	**Upstream Energy Sector Actions**
Sporadic influenza cases may be reported from the local community Possible limited local outbreaks Possible increased proportion of critical care cases with influenza	Possible disruption to international travel and concern among travellers Possible school closures based on public health risk assessment Possible public concern arising from media reporting	Absences are monitored by six 'indicator' energy companies, including National Grid, Centrica and Scottish Power.

DECC Alert Status: BLACK	LOW Impact Phase (Monitoring/Sharing Information) >10-15% Staff Absences Upstream	Pre-Declaration of Emergency by NEC
Nature and Scale of Illness	**Impact on Wider Society**	**Upstream Energy Sector Actions**
Similar numbers of cases to moderate or severe seasonal influenza outbreaks AND In the vast majority of cases – mild to moderate clinical features	Increase in staff absence due to sickness – similar levels seen in seasonal influenza outbreaks No significant or sustained impact on services and business capacity in the wider economy	The DECC alert status to BLACK which facilitates reasonable sharing of information between companies without raising competition concerns Upstream Daily Vantage POB reporting commences Daily monitoring by DECC of exception reporting of absence commences The existing DECC Upstream Crisis Management Plan (UCMP) initiates. This involves terminals preparing situation reports that describe their expected production volumes over the coming days

Possible Declaration of **DECC Alert Status: AMBER**	**MODERATE Impact Phase** **>25-30% Staff Absences Upstream**	***Possible Declaration of*** **NEC Emergency Stage 1 (Potential Gas Deficit Emergency)**
Nature and Scale	**Impact on Wider Society**	**Upstream Energy Sector**
High number of cases than large seasonal epidemic Young healthy people and those in at-risk groups severely affected AND/OR More severe illness	Supplies of electricity, gas and fuel will remain at near-normal levels of supply. Routine maintenance afforded a lower level of priority if there are staffing shortfalls. Essential repairs expected to continue Potential disruption to general supplies if peak staff absence coincides with technical or whether related supply difficulties Supply chain companies implement Business Continuity Plans Possible review of legislation regarding the hours worked by drivers, etc	Industry action to secure personnel and technical resources. Industry considers further contingency actions (e.g. halting all non essential work) DECC will encourage industry to share or transfer resources where possible DECC may consider whether emergency powers under the Energy Act 1976 should be sought.

***Possible Declaration of* DECC Alert Status: RED**	**HIGH IMPACT** **>45-50% Staff Absences Upstream**	***Possible Declaration of* NEC Emergency Stages 2 & 3**	***Possible Declaration of Imminent then Actual*** **Gas Deficit Emergency**
Nature and Scale	**Impact on Wider Society**	**Upstream Energy Sector Actions**	
Widespread disease in the UK AND/OR Most age-groups affected AND/OR Severe, debilitating illness with or without severe or frequent complications	Emphasis on maintaining supplies and staffing Maintain essential services in accordance with established business priorities Transport, schools, shops affected by sickness and family care absences Possible implementation of special measures (legislation, emergency powers etc) to facilitate changes in working practice	DECC seeks emergency powers required under the Energy Act 1976 and issues Directions under Order In Council. Industry complies with those Directions	

ANNEX B: Platform/Terminal change of Status Report

Please complete this report only if there has been a change of platform or terminal status e.g. Green - normal operations to AmberGreen – mixed. DECC will receive an automatic change notification and will follow up with a phone call.

Company Name:	
Installation/Terminal	DROP DOWN PICK LIST
Contact Details:	
Name:	
Email Address:	
Telephone Number	

Platform/Terminal Status

Please "tick" appropriate box.

Green	
AmberGreen	
AmberRed	
Red	

Definitions:
Green. Good. Normal Operations.
AmberGreen. Mixed. Normal Operations but potential problems emerging e.g. swine flu case(s) aboard or potential supply shortages -antivirals, fuel supplies.
AmberRed. Problematic. Operations affected potential for shut down, substantial actions taken e.g. all but essential work ceased, down-manning.
Red. Highly problematic. Operations severely affected or shut down.

Please give brief details of operational problems or potential problems identified.

What action has been taken to mitigate the effects of the problem?

Are there any mitigation measures that could be taken by Government (or any other third party) to help with your current problems?

You can contact DECC direct on **0300 068 5130** (During normal working hours) or **020 7215 3505 or 3234** (Out of hours) and ask for the Night Duty Officer.