

Shell Exploration and Production

1 Altens Farm Road
Nigg
Aberdeen
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Date 18 July 2011

Reference SVC4201590

Hazardous Installations
Directorate

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Operations Manager
James Munro

Attn: Mr Andrew Fyfe, Brent Operations Manager

Dear Sirs,

INSPECTION: BRENT C – 30-31 MAY 2011

HEALTH AND SAFETY AT WORK ETC ACT 1974

My colleagues, Chris Edens, Mike Skellett and I undertook a regulatory health and safety inspection on the above installation.

I am now writing to require you to take a number of actions following my inspection. In doing so, I have quoted the legislative basis for this. You should reply in writing to me by 18 August 2011 stating what measures you are taking in response to the actions below, including any timescales for implementation, as appropriate.

In addition, if possible, it would be appreciated if an electronic copy of your signed letter could be sent to my e:mail address above.

A copy of this letter is being sent to the installation's Safety Representatives in accordance with the requirements of Section 28(8) of the Health and Safety at Work etc Act 1974.

The Provision of Work Equipment Regulations 1998 [PUWER]

1. **Regulation 5(1):** *Every employer shall ensure that work equipment is maintained in an efficient state, in efficient working order and in good repair, and*

Regulation 6(2)a: *Every employer shall ensure that work equipment exposed to conditions causing deterioration which is liable to result in dangerous situations is inspected –*

(a) at regular intervals: to ensure that health and safety conditions are maintained and that any deterioration can be detected and remedied in good time.

Please advise me of what maintenance/inspection procedures you are considering to ensure the fitness for purpose of the pipework wrap repair on Spool & of rundown line P-161.

2. **Regulation 6(2)a:** *Every employer shall ensure that work equipment exposed to conditions causing deterioration which is liable to result in dangerous situations is inspected –*

(a) at regular intervals: to ensure that health and safety conditions are maintained and that any deterioration can be detected and remedied in good time, and.

Regulation 6(3): *Every employer shall ensure that the result of an inspection made under this regulation is recorded and kept until the next inspection under this regulation is recorded.*

Please confirm that all of your hydrocarbon piping systems have isometric sketches associated with them and that your scheme for targeting inspection and recording of data for all other safety critical pipework is sufficiently detailed and thorough.

Offshore Installations and Wells (Design and Construction, etc) Regulations 1996 –

Regulation 8(1): You should ensure that suitable arrangements are in place for maintaining the integrity of the installation.

Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 [PFEER] – Regulation 14 – “Muster Areas etc”

3. My inspection revealed that areas of the installation are suffering from severe corrosion. Redundant plant and equipment did not appear to be inspected or maintained and there is a risk that some aspects may pose a dropped object threat as the integrity worsens. A number of safety signs were noted to be in poor condition/illegible.

Please demonstrate that:-

- (a) suitable arrangements are in place to ensure the ongoing integrity of access and escape routes. This should include evidence of the arrangements in place to prioritise and execute remedial works.
- (b) suitable arrangements are in place to ensure the ongoing physical integrity of redundant plant and equipment. This should include reference to the decommissioning and/or mothballing guidance/standards being used and a description of the ongoing inspection requirements, and
- (c) you have surveyed all signage provided for muster areas and egress, access, evacuation and escape routes and identify and replace all that are not clear and legible.

Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995

4. Regulation 9: "Prevention of Fire and Explosion"

My inspection revealed that there are numerous long term inhibits on trips and alarms on the installation. Some have been in place since 1999 and many are associated with redundant or removed equipment.

The SIL rating of IPFs is being used to assist in the assessment and appropriate authorisation of over-rides. It was noted that the inlet and outlet isolation valves on PSVs (RV1110, 1120 & 1130) were not identified as "Locked Open" on P&ID BRC-B-14124-001 Sht.1 Rev.01. The LO/LC valve philosophy was not clear and was not available for review.

The CRO and Ops Tech described that they have limited input to HAZOPs etc. It was stated that this is normally left to onshore personnel. It was not clear whether the P&IDs were fully up to date. The index and most recent changes dated back to 2006-7. It was noted that it can take around 12 months to receive updates following changes offshore. The modifications do not appear to be clearly identified by revision clouds.

- (a) You are required to conduct a review of the long term overrides and inhibits against Shell standards and guidance, and provide findings from this review and an action plan to engineer solutions to allow removal.
- (b) Please confirm the status of the inlet and outlet isolation valves on PSVs (RV1110, 1120 & 1130) on P&ID BRC-B-14124-001 Sht.1 Rev.01 in the field and update the drawing to

reflect LO/LC as required. Demonstrate that auditing of the status of critical valves is effective.

- (c) Please demonstrate the accuracy of the P&IDs through cross-reference to recently completed modifications.

Offshore Installations (Safety Representatives and Safety Committees) Regulations

1989:

- 5. **Regulation 23(2)(b):** It shall be the duty of every dutyholder to consult safety representatives with a view to the making and maintenance of arrangements which will enable you and the workforce to co-operate effectively in promoting and developing measures to ensure the health and safety of persons working on or from an installation.

Discussions were held with the Safety Reps. and the following was noted:

- (a) While the workforce have received regular updates on the "glug" resolution, there does not seem to have been any Safety Rep involvement in reviewing the options to resolve the issue. It was noted that previous attempts to fix the "glug" issue had not been successful and hence there were concerns as to whether this solution would work. The question was raised as to whether there would be an independent technical review of the solution. It was explained that the Safety Case revision provides an opportunity for HSE to assess the proposal in a formal manner.

Please provide evidence of effective workforce involvement and consultation in the resolution of the "glug" issues and associated Safety Case Revision.

Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995

- 6. **Regulation 9(1):** You shall take appropriate measures with a view to preventing fire and explosion.

My inspection of ORA 377380 revealed that:

Separator LL & HH level trips are inhibited during periods of bad weather and when Penguin flowrate is varied. These are SIL3 devices and whilst this ORA requires management level authorisation, the practice has been ongoing for several years (since tie-back of Penguin).

Please re-assess the risks associated with this practice, providing justification for short-term continuation of this ORA, and provide an action plan to implement an engineered solution to remove the requirement for routine application of overrides on this vessel.

Lifting Operations and Lifting Equipment Regulations 1998

7. Regulation 8: "Organisation of Lifting Operations"

My inspection revealed that:

- (a) Lifts are not classified as simple, complicated and complex and therefore competency requirements for those involved are not specifically determined to suit.
- (b) A drawing reflecting the lifting plan and lifting arrangement is not a mandatory requirement.
- (c) Visual examinations are conducted when using uncertified beams and support requested from onshore TA as required.

Please review lifting policies and procedures against current best practice and identify areas for potential improvement.

The Provision of Work Equipment Regulations 1998 [PUWER]

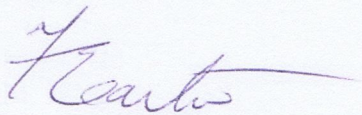
- 8. Regulation 5(1):** Every employer shall ensure that work equipment is maintained in an efficient state, in efficient working order and in good repair.

My inspection revealed a significant maintenance backlog, particularly with respect to mechanical – 15,000+ hrs – representing some 16-17 weeks backlog when taking into consideration the 3 additional ad-hoc technicians recently employed.

Please advise me of the measures you intend to take to address this situation.

If you need to clarify any points in this letter, please contact me at the above address.

Yours faithfully



Fraser Easton
H M Principal Inspector of Health & Safety

cc: Safety Representatives – Brent C