



Preliminary Post Incident Inspection

Incident: ***25/14-PII - Procedural irregularity leading to a dangerous occurrence at Malahide involving an isolation of 1,500V-DC traction power.***

Incident Background

On the morning of Wednesday 2nd April a planned isolation was granted by ECO at CTC to the OHLE Linesman at 00:25 to carry out work on the line between Portmarnock and Malahide. A second unplanned isolation was sought by the OHLE Linesman and was granted by the ECO at 00:40 from Malahide to the Malahide viaduct. The OHLE Linesman was under the impression that these were two separate isolations whereas the ECO was of the understanding that the original isolation was to be extended (one isolation).

When it came time to hand back the second (unplanned) isolation the OHLE Linesman contacted the ECO. The ECO however proceeded to start procedures to cancel the entire isolation. The ECO attempted to close the motorised lineside switch which was padlocked in the fail safe open position to provide protection to the isolation. This switch was located in the original planned isolation between Portmarnock and Malahide which was not to be cancelled. The switch was damaged by the attempted closure.

Summary of action(s) undertaken;

- ⊙ A review was undertaken of the following;
 - Completed Electrical Control Operator (ECO) forms & Logbook
 - Completed OHLE Nominated Person (NP) forms
 - ECO statement
 - OHLE NP statement
 - ECO Competence including training course material and certificate of competence
 - OHLE NP Competences were checked
 - Planned Worksite Details Week 14 Ending 06/04/2014
 - IM Operations department organisational Structure
- ⊙ Recordings of the phone conversations between the ECO and NP were reviewed
- ⊙ A review of the timeline of events of the Isolation Irregularity 02/04/2014 was undertaken
- ⊙ Isolation was checked in accordance with I-ETR-4301 V1.0 Part 1 – Electrical Control Procedures

Inspector Recommendation

Following a review of all records supplied, there is sufficient evidence available to confirm, to the satisfaction of the RSC, that standards and associated procedures were not followed in this instance. Therefore, it is considered unnecessary that a full PII, be undertaken in this instance. The immediate cause of the dangerous occurrence is clear. Similarly, the primary underlying cause, in the opinion of the Inspector, is attributable to ineffective communication and a lack of appreciation of the rules (and processes) in place to protect those staff involved in taking electrical isolations.

Inspection Findings

The following findings have been identified and where necessary a Post Incident Inspection outcome is made:

Finding 1: Communications between the ECO (Electrical Control Operator) and OHLE NP (Nominated Person) were poor insofar as a clear understanding of the isolation limits was not reached. Additionally, procedures were not followed by both the ECO and OHLE NP.

- The ECO used Form B Part 1A for the new extended isolation and the OHLE NP accepted this.
- The OHLE NP used a second Form B Part 1 for the 'extra' extension and the ECO did not recognise this. The OHLE NP believed he was obtaining a separate isolation.

The ECO should have known the electrical control procedures in regard to when and where an isolation can be extended or a separate isolation can be used for planned or unplanned work and emergency situations. The ECO should have clarified and dictated the conversation to the OHLE NP when he heard the OHLE NP saying he was using PART 1 on the isolation form.

Finding 2: The procedure in I-ETR-4301 V1.0 Part 1 – Electrical Control Procedures Section 5.3 was not followed, with regard to the Isolation from Malahide to the end (viaduct). The OHLE NP did not follow this procedure in making a call back to the ECO in this instance. The ECO additionally should have been proactive and should have made some attempt to contact the OHLE NP to complete Form B Part 2. Form B Part 2 must be completed by the OHLE NP before a Permit to Work can be issued.

Given the above findings numbers 1 & 2, the following outcome is determined:

25/14-PII-miNC 1: Non-Compliance with the procedure prescribed in IÉ-IM (SET) standard in accordance with I-ETR-4301 V1.0 Part 1 – Electrical Control Procedures, Section 5.3 -'*When an Isolation has been arranged*'.

Safety Critical Communications

The calls between the ECO and OHLE NP would come under safety critical communications. The IM/RU-OPS-SMS-8.1 Safety Critical Communications standard, Appendix 1A Call Grade Guide is used to grade a call on the quantity of communications protocols used. Calls are graded from A (low risk with clear understanding) to E (very high risk of misunderstanding).

Finding 3: A recorded call from this incident on 02/04/2014 @ 01.31 would, in the opinion of the RSC Inspector, be ranked D or E in accordance with IM/RU-OPS-SMS-8.1 and would result in a high risk of misunderstanding. In another call on 02/04/2014 @ 01.29 the OHLE NP said "*the process is new to me and can I complete the isolation on separate forms*". The ECO did not respond to this request from the OHLE NP. The ECO then responds later on by saying "*that's fine, that's the way I completed the forms*", which added to the confusion. In the statement from the ECO after the incident, he admits a misunderstanding. There was no repeat back of key information at this crucial instance which is required in safety critical communication protocols. The ECO should have led this conversation and dictated the type of isolation to be used to the OHLE NP to avoid any confusion.

Given this finding the following outcome is determined:

25/14-PII-miNC 2: Non-compliance with IM/RU-OPS-SMS-8.1 Section 8.3 – '*All staff must be trained in the use of forms and any specific safety critical communications protocols*'. While staff may have been trained, the ECO did not control the communication in a manner expected of an individual in such a responsible position.

Finding 4: The quality in communications between the ECO and OHLE NP was poor and led to a potentially dangerous misunderstanding. There were some fundamental lapses in the understanding of isolation procedures by the ECO. A clear understanding was not reached between the parties as to their requirements and expectations. Forms were completed but incorrect processes were adopted. Based on the above the following outcome is determined:

25/14-P-II-AR 1: The IÉ-IM ECO and OHLE NP involved in this incident should at a minimum be re-briefed on extending isolations and taking new isolations for unplanned work. Ideally the ECO should be subject to additional training, monitoring and assessment for a suitable period of time on safety critical communications and isolation procedures including the completing of isolation related paperwork.

PCD: 3 month

Finding 5: Communication was poor between the ECO and OHLE NP, neither coming to a clear understanding of each other's expectations. Given this finding and previous findings the following outcome is determined:

25/14-P-II-AR 2: IÉ-IM to review the STMA of ECO's competence, ECO training courses and safety critical communications training provided to ECO's and OHLE NP's. This review should at a minimum include:

- a review of any refresher/ training courses provided, its contents and its periodicity
- a review of ongoing internal monitoring of ECO competence assessments in relation to unplanned isolations and safety critical communications, its contents and its periodicity
- a review of the selection criteria for the role of an ECO
- a briefing to all ECO staff on any outcomes of this review

PCD: 3 months

Finding 6: Standard OPC-SMS-026 STMA (Selection, Training, Monitoring and Assessment) of ECO's V1.1 was approved on the 25th March 2013. No evidence was available to demonstrate that this standard was being implemented prior to the 26th June 2014. It is understood that this was as a result of resourcing and training issues in the CTC department. However, actions taken since the 26th June 2014 suggest a desire to become compliant, hence, it is considered inappropriate to raise a non-compliance in this instance. Thus IÉ-IMO have been non-compliant in fulfilling the requirements of completing Competence Assessments of ECO's. Based on this finding the following outcomes are determined:

25/14-P-II-AR 3: IÉ-IM to review the resources and training required in CTC to implement the standard OPC-SMS-026 STMA of ECO's V1.1


- any outcomes/suggestions/observations determined from Assessors/CTC Duty Managers when completing the competence assessments using OPC-SMS-026 are implemented in ECO training/refresher courses

25/14-P-II-AT 1: RSC Follow-up of IMO compliance with OPS-SMS-026

- It is recommended that the RSC undertake follow up activity later in 2014 to check on-going compliance with OPS-SMS-026 or its replacement.


Signatories

Prepared By:
Shane O'Duffy

Signed


Dated
1st August 2014

Reviewed By:
Anthony Byrne

Signed


Dated
1st August 2014

Authorised By:
Gerald Beesley

Signed


Dated
1st August 2014