EVALUATING ORGANIZATION EFFECTIVENESS REVIEW (EOER) DETAILS REPORT

D15-001496-EOER
QUALITY REVIEW COMPLETED

Report Seq No:	D15-001496-EOER	Facility:	DARLINGTON NGS	Entry Date:	2015 Oct 14
EO Manager:	COLELLA,ANTHONY,A	Division:	PROJECTS & MODIFICATIONS	Start Date:	2015 Oct 14
Status:	CARB Approved and Cl	Department:	DARLINGTON DESIGN PROJECTS	Target Completion Date:	2015 Oct 15
Year:	2015	Section:			
Time Spent:	8 hrs	Resource Cat:	C	Significance Level:	2
Author:	TANNOUSW	Overall Effectiveness Disposition:	Effective	Actual Completion Date:	2015 Oct 15

Team Members:
Reference:
SCR #s / AR #s: N-2014-30652, 28174116

SCR # and Title

N-2014-30652 - 16-31555 D2O HWMB individual exposed to falling hazard

Executive Summary

This EOER concludes that the CAP and SCR actions were Effective.

On November 3rd, 2014 at approximately 10:00 AM a sub-contractor supervisor who was working on a davit arm installation, was exposed to a 14 m falling hazard, while traversing 3 m to install davit arm components.

The circumstances were set-up by flawed defense in safe work planning. Weaknesses in Project Oversight Plan execution, specifically Project Oversight Plan requirements for the review and approval of safe work plans appeared to have been omitted from the safe work plan that was used. The safe work plan was generic for the entire sub-contractor project, and not a specific step-by-step analysis of the hazards for the conditions of the job site on the day of the event. Another contributing cause included ineffective methods to identify, review High Hazard Work prior to execution.

Assignments for this CAP were to mitigate these two causes for the adverse condition. These assignments included:
- Enhanced oversight of high risk activities by contractors and OPG staff
- OPG CMO using a Daily Log Field Checklist to prompt oversight in constructability and task planning to ensure task specific safe work plans are prepared, reviewed and delivered at PJB
- D2O project team identifying and flagging high hazard work during daily construction meetings.

This EOER found recurrence control actions effective in adressing the adverse condition and mitigating all causes for this condition. All assignments were completed and the ones that were given extensions were given the proper CARB approval. Although there have been recurrence of incidents involving exposure to falls, none of them have identical causes that led to this adverse condition. The intent of this CAP was to address the lack of oversight on safe workplanning for potential high hazard work and this was met with the completion of assignments that were are a part of this CAP. EOER-1496 was approved during the P&M CARB on Nov. 19/15. This completes this EOER. A. Colella

Problem Statement/Adverse Condition

While installing davit arm components, the individual traversed approximately 3m with an exposure to a 45ft fall.

Stated Cause (Root or Apparent)

See Attached Incident Investigation Report

SCR Search / Power Search

Searched SCR database for OPEX documenting similar events that have occured from the discovery of the adverse condition to date.

Date Range: November 4th, 2014 to October 14th, 2015
Databases searched - DN, PN, Nuclear Support
Keywords used in the OPEX search:
potential fall, *fall arrest*

potential fall - D-2015-23326, D-2015-21484 - SCRs regarding unzoned areas that could have exposed workers to falls
P-2015-21689, P-2015-04044 - SCRs regarding equipment failure that led to height exposures

N-2015-11138, N-2014-31132 - SCRs of workers not using fall protection that exposed themselves to potential fall from heights.

fall arrest - P-2015-15390 - SCRs regarding defective fall arrest
P-2015-08862, P-2015-04738 - SCRs regarding stores not having fall arrests
N-2015-20244 - SCRs regarding a worker tieing off at an incorrect anchor point (D2O)
D-2014-31591 - SCRs regarding workers on a roof not using a fall arrest.

Assignment Review

Assignment Number: 01 ***Assignment Type:*** S-One Time Fix

Assignment Description

Project Manager to monitor completion of Contractor actions addressing the direct cause:
1. Contractor and subcontractors on the D2O project to provide enhanced observation / surveillance of high risk activities.
2. Working supervisors' PJB's to include Contractor Superintendent or Safety Coordinator.
3. Contractor to reinforce safety expectations to all staff.
4. Contractor Supervisors to be scheduled for Oral Review Boards.
5. Affected Subcontractor to review this incident with their staff.
6. Affected Subcontractor to complete re-orientation prior to resumption of project work activities

(Reference: Human Performance Lessons Learned Report of the incident – attached to SCR)

Completion Criteria:

Documented evidence of completion attached to Assignment. Project Manager to review and accept.

Success Criteria:

Safety issues or gaps identified via SCR or PORs do not indicate continued risk and accepted by OPG Project Manager.

Action Completion Notes

ED confirmed the following actions as complete: 1. contractor and subcontractors on the d2o project to provide enhanced observation / surveillance of high risk activities. - high risk activities are stated daily during construction conference call, with "eyes in the field" also noted / discussed during daily call; any noted observations / coaching efforts are noted in daily report emailed to opg project / cmo; 2. working supervisors. pjbs to include contractor superintendent or safety coordinator. - refer to sample pjb copies dated mar. 30 & 31, 2015 3. contractor to reinforce safety expectations to all staff. - was completed during stand down following the event terry bowan was in attendance, safety and site specific expectations are reinforced through our orientations and again during pre-job briefing discussions, as well as with roll-outs - this is and will be on-going; refer to attached attendance list 4. contractor supervisors to be scheduled for oral review boards. - one safway supervisor has completed the orb interview; refer to attached timsii report for ed koch, employee no. [redacted] confirming his credit against pel 68652, btu supervisor oral review board 5. affected subcontractor to review this incident with their staff. - refer to safety stand down letter dated jan. 15/15 6. affected subcontractor to complete re-orientation prior to resumption of project work activities - safway personnel to be scheduled for re-orientation training prior to return to work activities which is anticipated in near future, as per field; attendance list can be provided when completed. safway staff haven't returned to site since incident. crossby dewar has supported scaffold mods since the incident and it is expected that crossby dewar will continue to provide scaffold support for duration of ellisdon work. on this basis, action is considered complete. anthony colella, manager, p&m, march. 31/15.

Any Negative Impact for Corrective Action?

No negative impact from implementing corrective action.

Action Effectiveness Disposition

This action was effective as it mitagated the direct cause of the adverse condition by providing enhanced oversight of high risk activities on site through the submitted deliverables. These deliverables ensure that OPG, contractors and subcontractors review and eliminate the gaps in safe work planning that led to the adverse condition. All extensions to this assignment were approved by CARB.

Methodology Used / Evidence Found

This action was completed as originally inteded after the assignment had been extended per CARB approval to acquire evidence of completion of action from vendor. All completion evidence for the 6 actions associated with this assignment was clearly labelled and documented in completion notes.

All evidence was reviewed and found that completion criteria was met.

Assignment Review

Assignment Number: 02 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

CMO to use a Daily Log Field Checklist (previously N-FORM-11487) to prompt contractor oversight in the areas of constructability, the details of task planning and specifically to ensure task specific safe work plans are prepared as required in

Section 1.3 of OPG-PROC-0129. Contractor Monitors to review these safe work plans and observe their delivery at PJB.

Completion Criteria:

All safe work plans have been reviewed and approved by CMO staff prior to execution and new Daily Log Field Checklist has been developed.

Mid Effectiveness Criteria:

Conduct snapshot self-assessment to gauge effectiveness of SWP reviews/approvals, and safe work execution/completion.

Success Criteria:

High Hazard activities are conducted event-free as identified via SCR or PORs and review of CMO logs.

Action Completion Notes

the action for ar#28174116-02 was for the darlington cmo to develop and use a daily log field checklist (previously n -form-11487) to prompt contractor oversight in the areas of constructability, the details of task planning and specifically to ensure task specific safe work plans are prepared as required in section 1.3 of opg-proc-0129. contractor monitors to review these safe work plans and observe their delivery at pjb. the contract monitor logs have been received with the daily log field checklist incorporated into the hard log. . the intent of the log book is for the contract monitors to have a tool to use during their field observations in which they may enter notes and have the check list with them that acts as a prompt and guide for entries into the electronic log that is due at the end of every shift and logged in share point under the project file. management expectation for review of safe work plans and documentation of such delivery and review at vendor pre job briefs are also to be entered into the electronic logs by the contract monitors. the expectation per this action have been rolled out to affected personnel. this action is complete.

Any Negative Impact for Corrective Action?

No negative impact from implementation of corrective action.

Action Effectiveness Disposition

This action was deemed effective as the contract monitor safety checklist was added to the daily log and is an effective tool in prompting contractor oversight in the areas of constructability. Safe workplan reviews are being performed to ensure that they are compliant with OPG-PROC-0129 and that they are rolled out correctly during pre-job briefs. Both these actions mitigate the risk of recurrence of the adverse condition associated with this SCR.

Methodology Used / Evidence Found

This action was completed as originally inteded after the assignment had been extended per CARB approval to complete self assessment and rollout the new log books to contract monitors.

CMO has provided a copy of the daily log field checklist (contract monitor safety checklist) that has been included in the daily log as part of completion of this assignment. The reviewer of this document spoke to CMO to gauge effectiveness of their safe workplan reviews/approvals . It was found that these safe workplan reviews were effective mitigating the adverse condition and that the CMO staff was knowledgeable on the safe work execution on site.

Contract Monitors displayed a sample log entry in which they noted their use of the safety checklist, which was appended to the completion notes of this assignment. Contract monitor binders for certain POs (213496 & 248801) were reviewed and the approved safe workplans for the associated work was found and well documented.

Assignment Review

Assignment Number: 03 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

D2O project team will identify and flag work potentially involving: high hazard work, critical tasks, infrequently performed tasks and evolutions during Project Look Ahead Meetings

Completion Criteria:

Standing agenda item on project look ahead meetings.

Success Criteria:

• Snapshot self-assessment confirming that high hazard work, critical tasks, infrequently performed tasks and evolutions are indentified and flagged on the project schedules.
• High Hazard activities are conducted event-free as identified via SCR or PORs and review of CMO logs

Action Completion Notes

the d2o construction team holds a daily 7:30 am construction call and a daily 2:00 pm look-ahead meeting. to identify and

prepare accordingly for any high-risk or high hazard activities that are taking place that day or are upcoming. additionally, there are thursday 1:00 pm weekly look-ahead meetings that track action items and identify throughout any activities considered high risk to ensure appropriate oversight is arranged. (see attached for a sample agenda) submitted by section manager julian read approved by manager anthony colella assignment is now complete.

Any Negative Impact for Corrective Action?

No negative impacts from implementing corrective action.

Action Effectiveness Disposition

This assignment was deemed effective as this action was completed on time and high hazard work is a standing agenda item on project look ahead meetings. The project level 3 schedule did not provide the granularity requried to clearly high-lite high hazard activities within the schedule. As such, the daily morning meeting agenda was revised to clearly identify and document the high hazard activities planned for the day as well as identifying contractor supervisors, by name, that would be providing field oversight. OPG CMO directed oversight on a daily basis, as required, for high risk/hazard work including attendance at the PJBs. The daily review of high hazard work during the morning meeting exceeded the requirement of the original action to flag high hazard work on the P6 schedule. As such, the introduction of daily reviews of high hazard work and identifying the field supervisors of the high hazard work was deemed to meet the requirements of this action.

Methodology Used / Evidence Found

High hazard work, critical tasks and infrequently performed tasks are being monitored and documentd on daily basis during daily morning construction meetings and weekly look ahead meetings. A sample agenda was reviewed and it was determined that high hazard work and associated oversight was discussed during construction and schedule look ahead meetings.

Assignment Review

Assignment Number: 04 ***Assignment Type:*** E-Enhancement Action

Assignment Description

1. Verify the completion notes of the RC action assignment to ensure;
i). Did you do what you committed to?
ii). Did you document clearly what you said you would do?
2. Schedule a meeting with Manager – Corrective Action Dept to review/validate findings from this pre-effectiveness check.
3. Document in completion notes:
i). RC action completion criteria satisfied or not
ii). Date, time and outcome of meeting with Manager – Corrective Action Dept

Action Completion Notes

A PRE-EFFECTIVENESS REVIEW OF THIS CAPR ASSIGNMENT WAS HELD WITH PERFORMANCE IMPROVEMENT MANAGER TO DISCUSS THE EFFECTIVENESS OF THE CAP. THIS MEETING WAS HELD ON SEPTEMBER 25TH. NO FURTHER ACTIONS WERE DETERMINED FOR THE EOER. THIS ASSIGNMENT IS NOW COMPLETE.

REQUESTED BY: WILLIAM TANNOUS
SUBMITTED BY: WILLIAM TANNOUS
APPROVED BY: MANAGER ANTHONY COLELLA

Any Negative Impact for Corrective Action?

No negative impact from implementation of corrective action.

Action Effectiveness Disposition

This action was effective as it determined a couple of gaps in the completion of assignments such as the completion snap shot self-assesments for the review of safe workplans.

Methodology Used / Evidence Found

Meeting was scheduled between Projects delegate and Darlington Performance Improvement manager to ensure effective completion of assignments.

Assignment Review

Assignment Number: 05 ***Assignment Type:*** EOER

Assignment Description

Perform EOER in accordance with N-GUID-01966-10001, Evaluating Organization Effectiveness Reviews.

Action Completion Notes

EOER completed Oct. 15/15

Any Negative Impact for Corrective Action?

None identified.

Action Effectiveness Disposition

Yes, EOER confirmed action plan was deemed effective to prevent risk of reoccurence.

Methodology Used / Evidence Found

Conclusions/Verifiable Evidence

This CAP was deemed effective. The CAP resulted in the implementation and enhancement of tools for OPG and its vendors to

improve its oversight on high hazard work. Although there have been recurrence of incidents involving exposure to heights since the occurrence of this adverse condition, only one of them involve workers not following safe protocol and putting themselves at risk. The original intents of this CAP were to ensure that OPG and its vendors are aware of high hazard work that needs to be performed such that additional training and oversight can be provided accordingly, and safe work planning was reviewed and corrected, if necessary, before field work begins. Through OPG and its vendor's completion of these actions these intents were met.

Recommendations/Actions

Recommendations

This SCR should serve as OPEX for future work involving fall arrests and other potential high hazard work. It should also reinforce the importance of OPG and its vendors applying the necessary oversight on construction activities and the adherence to safe workplans.

Actions

Post CARB Comments

Quality Review

Supporting narrative and evidence concluding actions were effective to reduce risk of reoccurence are documented.

Quality Criteria	Yes?	Rating
Complete this Quality Review		
EOER PROCESS		
EOER Reviewer has the required experience & knowledge in the area being reviewed.	Y	1
EOER Review completed within 6 months of last Recurrence Control assignment set to complete (unless approved by CARB).	Y	1
EOER Review covered off all corrective actions with sufficient evidence documented to support findings for completion quality & effectiveness.	Y	3
NEGATIVE IMPACTS OF IMPLEMENTED CORRECTIVE ACTIONS:		
EOER Review determined if any negative impacts arose from CAP implementation, and assessed negative impacts found (if any).	Y	2
RESULTS		
Conclusions, verifiable evidence, and recommendations aligned with the findings	Y	3
SUBTOTAL		10
OVERALL RATING (Maximum = 10)		10