EVALUATING ORGANIZATION EFFECTIVENESS REVIEW (EOER) DETAILS REPORT

D17-000282-EOER
QUALITY REVIEW COMPLETED

Report Seq No:	D17-000282-EOER	Facility:	DARLINGTON NGS		Entry Date: 2017 Jan 17
EO Manager:	HOWARDGM	Division:	PROJECTS & MODIFICATIONS		Start Date: 2017 Jan 17
Status:	CARB Approved and Cl	Department:	MODIFICATIONS		Target Completion Date:
Year:	2017	Section:	TRADES		2017 Jan 30
Time Spent:	16 hrs	Resource Cat:	B	Significance Level: 2	Actual Completion Date:
Author:	TOPOLNIKOV,ALEXA			Overall Effectiveness Disposition: Ineffective	2017 Jan 27

Team Members: ABBAS,ANIKA,A, MARSHALL,BRETT,BA, SHINJO

Reference: 2015-12 DEC OPG SAFETY PERFORMANCE REPORT.PDF, CAP_HEALTH_PERFORMANCE INDICATORS_2016Q4_PRMOD.XLSX, FALLHAZARDSCR_REPORT.XLSX, INJURYSCR_REPORT.XLSX, MRPHSCR_REPORT.XLSX, REP-2016-12 OPG SAFETY PERFORMANCE_REVISED.PDF, SUBCONTRACTORSCR_REPORT.XLSX

SCR #s / AR #s: D-2015-04075, N-2017-02277, 28177049

SCR # and Title

D-2015-04075 - Project Related Safety Events at DNGS (Common Cause)

Executive Summary

This CAP is being deemed Ineffective because, from Sept 2015 to Dec 2016, there were still a number of significant project related safety events at Darlington. As documented in this EOER, the individual corrective actions taken have now been completed and resulted in some improvements. There is limited value (cumulative impact) in conducting additional analysis and it is recommended that no further corrective actions are taken via this SCR and no additional EOERs are completed. Rather, further improvements will be driven and evaluated for effectiveness through existing corrective action plans and the P&M Nuclear Safety Culture Improvement Plan.

- D-2015-20225 - VBO D1531, ECI Hatch Outage Work
- D-2015-26971 - D1531 Outage Work Protection Violation
- D-2016-08194 - AHS – Inspection Logs and Weld Maps Found With Anomalies / Inconsistencies
- D-2016-10407 - D1641 STOP Falling Object Incident
- D-2016-19957 - CFVS, NPC Piping Tied in Downstream of Terminal Points
- D-2016-21718 - Common Cause Project related Hoisting and Rigging Events(SDC & EPG3)
- Projects & Modifications Nuclear Safety Culture Improvement Plan (RMO Tool actions 9502-9512)

The evaluation conducted under D-2015-04075 contained the following problem statement: Between November 2014 and January 2015 there have been a number of significant safety incidents involving supplemental personnel. These events included a worker having his arm injured, workers not wearing fall protection, workers not using fall protection devices with the potential to fall >3m, severing of underground services, and equipment being knocked over or banged into by trucks and other vehicles. This evaluation determined that 5 common causes existed (see Stated Cause section).

Of the common causes identified, the resulting RC actions were agreed to and after numerous extensions, were completed between September of 2015 to June of 2016. Based on the completion dates it can be determined that the CAP was not fully executed in time to allow for the actions to take effect. Subsequent events as listed above and associated corrective actions plans will be used to evaluate the effectiveness of vendor performance.

Some additional recommendations are provided as a result of this EOER and review of the corrective action plan. They will be tracked in SCR D-2017-05050 which was filed to document the ineffective EOER.

Problem Statement/Adverse Condition

Since November 2014 there have been a number of project safety related events at DNGS. These events include:

• N-2015-02357 DNGS AHS Facility - Arm injury. Project # 16-34000
• D-2015-02500 DNGS AHS Facility - Arm injury. Project # 16-34000
• D-2014-34207 Trend SCR: An increasing adverse trend of contractors vehicles inadvertently striking station equipment and other vehicles

• N-2015-00832 Reversing Flatbed Truck and Struck Scaffolding Project # 10-73810
• D-2015-01250 Gantry crane made contact with vehicle
• N-2014-30652 D2O HWMB individual exposed to falling hazard
• N-2014-35264 AHS – 16-34000 Workers Stopped due to Unsafe Condition
• D-2015-02127 WO# 2754787 Side fork lift made contact with Light Pole
• N-2015-00032 P&M Adverse Trend SCR: Common Cause Evaluation to be Conducted with Respect to Employees Making Inappropriate Decisions at Job Site
• D-2015-01317 Projects and Modifications Trend SCR: An adverse trend of our ES MSA contractor inadvertently contacting station services/equipment during Excavations
• D-2015-01808 ERT1 (incident command vehicle) not available for EPG 2 response
• N-2015-01254 Project 16-31552 Pumphouse 1 gantry crane made contact with an ERT vehicle
• N-2015-03042 Unsafe behavior observed -D20 Project 16-31555

Stated Cause (Root or Apparent)

What Happened: Between November 2014 and January 2015 there have been a number of significant safety incidents involving supplemental personnel. These events included a worker having his arm injured, workers not wearing fall protection, workers not using fall protection devices with the potential to fall >3m, severing of underground services, and equipment being knocked over or banged into by trucks and other vehicles.
Extent of Condition: In a CCA, the purpose of the evaluation is to review only the identified trend. As a result, this review was limited to the initial scope of project-related safety events between January 2014 and February 2015.
Common Cause 1: [redacted]
Common Cause 2 [redacted]
Common Cause 3: Some projects and modifications personnel do not perceive their leaders as demonstrating behaviours that reflect that safety is their overriding priority. This has resulted in some staff having the perception that production comes ahead of safety.
Common Cause 4: Projects and Modifications use of the corrective action program at times has not been fully effective at the early identification of adverse performance trends and correction of their causes.
Common Cause 5: In some cases gaps between the current contract management processes and industry best practice have contributed to weaknesses in oversight of supplemental personnel.
Recurrence Control Actions:
• ESMSA Vendors to implement subcontractor management plans that will address the gaps in subcontractor human performance.
• ESMSA Vendors to implement plans that will address improved supervisor oversight in the field.
• Complete a nuclear safety culture review in Projects and Modifications using a reviewer external to OPG, and implement an excellence plan.
• P&M CARB to implement the CARB Familiarization Guide initiative.
• Establish a supplemental worker program in alignment with industry best practices outlined in AP930.

SCR Search / Power Search

Based on the 13 scr's listed inside of the problem statement for the subject SCR, a title search in the SCR data base under key words %injury, %fall hazard, %sub contractor and %mrph was performed from 2015/02/19 to 2017/01/21 under the Projects and Modifications unit. Due to the limited data available for 2017 in all key word searches, the information will not be considered as part of this EOER. The data from the searches were binned into the resolution categories for analysis in order to determine any repeat of the same or similar events and their significance level.

Search results under %injury resulted in 27 scr's in 2015 and 46 in 2016. Along with the increase in the number of scr's entered in 2016 an increase in safety related scrs dispositioned with a resolution category of D3 (26 in 2016 from 9 in 2015) was noted. Scr's categorized as C3 rose to 3 in 2016 from 0 in 2015.

Search results under %fall hazard results found an increase from 4 in 2015 to 10 in 2016. None of the scrs in this review were categorized higher than a D3 for either year.

Search results under %sub contractor resulted in an increase from 187 in 2015 to 189 in 2016. An increase was noted in scr's categorized as a D3 (21 in 2015 to 49 in 2016). [redacted]

Search results under %mrph resulted 10 scr's with 1 in 2015 and 3 in 2016. These findings were validated by reviewing the OPG Safety Performance Reports for 2015 and 2016.

In all 4 searches the data indicates a significant increase in related events post the CAP under this EOER.

Assignment Review

Assignment Number: 01 ***Assignment Type:*** T-Temporary Fix

Assignment Description

OPG ESMSA contractors complete and document two paired field observations per month for each subcontractor foreman for Q2, Q3, 2015, trend information will be trended for each quarter, negative trends will have actions developed to address the trends and the actions will be communicated to Projects and Modifications quarterly. Documented field observations should include comments about the pre-job brief, how field work is being completed and the use of human performance error prevention tools and will be communicated to Projects and Modifications quarterly.

Accepted by: Grant Howard
Alert Group: N-PMDPD
Due Date: September 30, 2015

Action Completion Notes

the assignment under ar# 28177049-01 for scr n-2015-04075 with regards to project related safety events at dngs (common cause) was for opg esmsa contractors to complete and document two paired field observations per month for each subcontractor foreman for q2 and q3 2015 and trend for each quarter. the quarterly trend reports submitted by the contractors are attached. the trend reports reveal the scorecard used; the outline of the oversight plan and the documented field observations. the documented field observations include comments on the pjb, safe work plans, the execution of work and the use of human performance error prevention tools. the trend reports submitted in response to ar# 28177049-01 also meet the criteria under ar# 28177049-02 this action is complete. grant howard director, projects

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had one reschedule due to the delays noted in accepting the report with revised action due dates. The extension was granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Integrity, Permanency, and Sustainability: This action is deemed suitable to meet all three of these requirements for as long as vendors are performing work at OPG sites. Examples of this include the performance of prime vendor oversight scheduling and documented observation and coaching duties under the vendors program and will be further enhanced by the requirement for vendors to rely on their own corrective action program with regards to human performance oversight on sub contractor personnel.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and search for vendor related observation and coaching details pertaining to sub contractor management and oversight with power search and the scr data base.

The results from the searches under %Vendor paired observation, %O&C and %observation resulted in no examples of vendor data that could be used as part of the EOER for this CAP action. This is due to the vendor prgram is not available for review other than in the form of reprots generated and submitted to Projects and Modifications management.

As noted in the methodology section, search results under %sub contractor resulted in an increase from 187 in 2015 to 189 in 2016. An increase was noted in scr's categorized as a D3 (21 in 2015 to 49 in 2016). [redacted]

Assignment Review

Assignment Number: 02 ***Assignment Type:*** T-Temporary Fix

Assignment Description

OPG ESMSA contractors complete and document two paired field observations per month for each foreman for Q2, Q3, 2015, trend information will be trended for each quarter, negative trends will have actions developed to address the trends and the actions will be communicated to Projects and Modifications quarterly. Documented field observations should include comments

about the pre-job brief, how field work is being completed and the use of human performance error prevention tools and will be communicated to Projects and Modifications quarterly.

Accepted by: Grant Howard
Alert Group: N-PMDPD
Due Date: September 30, 2015

Action Completion Notes

the assignment under ar# 28177049-02 for scr n-2015-04075 with regards to project related safety events at dngs (common cause) was for opg esmsa contractors to complete and document two paired field observations per month for each foreman for q2 and q3 2015 and trend for each quarter. the quarterly trend reports submitted by the contractors are attached. the trend reports reveal the scorecard used; the outline of the oversight plan and the documented field observations for each month. the documented field observations include comments on the pjb, safe work plans, the execution of work and the use of human performance error prevention tools. the trend reports submitted in response to ar# 28177049-02 also meet the criteria under ar# 28177049-01 this action is complete. grant howard director, projects

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

The effectiveness disposition for this action is the same as action #1 with regards to timeliness, integrity, permanency, and sustainability. The completion notes indicate that the action was determined to be a similar action with the intent met as noted in action #1.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and search for vendor related observation and coaching details pertaining to sub contractor management and oversight with power search and the scr data base.

The results from the searches under %Vendor paired observation, %O&C and %observation resulted in no examples of vendor data that could be used as part of the EOER for this CAP action. This is due to the vendor prgram is not available for review other than in the form of reprots generated and submitted to Projects and Modifications management.

As noted in the methodology section, search results under %injury resulted in 27 scr's in 2015 and 46 in 2016. Search results under %fall hazard results found an increase from 4 in 2015 to 10 in 2016.

Assignment Review

Assignment Number: 03 ***Assignment Type:*** T-Temporary Fix

Assignment Description

Action Type: Interim (T)

• Communicate, monitor and reinforce the frequency of safety meetings as per corporate safety rules.
• Leaders that provide oversight at key daily and weekly meetings (like Plan of the Day and Plan of the Week), demonstrate behaviours and ensure actions are taken that reinforce safety as the overriding priority.
• Develop and implement meeting scripts for key meetings (like Plan of the Day and PCC weekend conference calls), scripts should include items such as discussion of nuclear safety and oversight of high-risk activities.

Accepted by: Art Rob
Alert Group: N-PMD
Due Date: June 30, 2015

Action Completion Notes

april 5, 2016 s. wood for art rob closure notes: ar# 28177049-03 the assignment under ar# 28177049-03 for scr n-2015-04075 with regards to project related safety events was for senior leaders to reinforce safety. senior leaders participate in regular safety meetings on the required basis as per section 1.5 of the opg corporate safety rules. the pcc and weekend calls are attended by senior leadership routinely and make special efforts to emphasize the special risks are identified and that ownership is clearly accepted for each. the agenda and meeting scripts have been updated to include the explicit discussion on nuclear safety and the oversight of high-risk activities. an example of the weekend call meeting script has been attached to the notes section. senior leadership own routine communications to p&m staff where nuclear safety culture and performance of same is discussed; these include routine face to face sessions and email bulletins. a joint senior level initiative by opg and es msa contractors was implemented q3 2016 to ensure safety subjects, directly relevant to the project work, are messaged in a poster campaign across the sites with a monthly refresh rate. typical subjects to date have been; core 4 event free tools, work protection, winter readiness, etc.

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had two reschedules due to the delays noted in accepting the report with revised action due dates. The

extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Integrity, Permanency, and Sustainability: This action is deemed suitable to meet all three of these requirements by the way of senior leadership attendance at project meetings, reinforcement of safety values and the reporting of daily work activities with a focused oversight based on risk.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes, the attachments and discusions with personel attending the pcc daily meetings.

Assignment Review

Assignment Number: 04 ***Assignment Type:*** T-Temporary Fix

Assignment Description

Action Type: Interim (T)

For current open level 2 causal evaluations, analyse the open actions and combine the common actions into a few initiatives to simplify and align actions so that efforts can be focused on a smaller number of recurrence control actions that can be effective in making necessary but timely change.

Accepted by: Grant Howard
Alert Group: N-PMDPD
Due Date: June 30, 2015

Action Completion Notes

the action for ar# 28177049 was for current open level 2 causal evaluations, analyse the open actions and combine the common actions into a few initiatives to simplify and align actions so that efforts can be focused on a smaller number of recurrence control actions that can be effective in making necessary but timely change. a report was generated from the action tracking report tool under tab 01. open/in progress assignments/sub assignments. the report identified 42 sig level 2 assignments for projects and modifications and was used as a basis for the analysis under this ar. based on the data reviewed, 3 accepted assignments under ar# 28177388 (no audit no-2015-022 finding 2: deficiencies in n-2015-06125) assignments #1 (type r), #3 (type s) and #5 (type t) which are all common to training related initiatives, will not be combined as the assignments are already in progress with due dates in q3 and q4 of 2015 as part of the actions/findings assigned under no audit no -2015-022. upon analysis of the 39 remaining assignments, 4 assignments under ar# 28177049 (project related safety events at dngs (common c d-2015-04075) were identified as common with regards to focused vendor supervisory and sub vendor oversight plan development. of the 4 assignments, #1 and #2 (type t) under ar# 28177049 have been accepted by n-pmdpd with due dates of 2015-09-30. assignments #6 due 2015-09-30 and #7 due 2015-08-28 (both type r) assigned to n-pmfpm. due to the pending due dates these actions will not be combined as they are already assigned and in progress. of the remaining 35 sig level 2 assignments inside of the report and attached in the notes tab under this ar, 9 type r assignments were identified/reviewed and are deemed uncommon with no opportunity to be combined as per the scope of this action and therefore must be completed as assigned. this action is complete.

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

The review of this action is deemed not applicable to the process review for timeliness, integrity, permanency, and sustainability under section 2.6 of N-GUID-01966-1001 as the purpose of this action was to review open level 2 causal evaluations and determine if any duplicate actions could be combined in order to avoid duplication and or conflict within existing actions. This action had 1 reschedule due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section.

Assignment Review

Assignment Number: 05 ***Assignment Type:*** T-Temporary Fix

Assignment Description

Action Type: Interim (T)

Conduct a joint CARB review in Q3 with Darlington CARB members to review P&M adverse trends with the purpose of getting feedback on trends and recurrence actions.

Accepted by: Art Rob
Alert Group: N-PMD

Due Date: September 30, 2015

Action Completion Notes

ar #28177049-05 the assignment under ar# 28177049-05 for scr n-2015-04075 with regards to project related safety events was to conduct a joint carb review with darlington carb members to review p&m adverse trends with the purpose of getting feedback on trends and recurrence actions. a director of darlington projects presented the p&m adverse trends at the march 15, 2016 arb. carb response was good in particular for the p&m quarterly trend report that was presented, an action was taken to continue to present the quarterly trend results to the darlington carb. this action is complete. grant howard director, projects

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had three reschedules due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

The review of this action is deemed not applicable to the process review for timeliness, integrity, permanency, and sustainability under section 2.6 of N-GUID-01966-1001 for this EOER. The intent of the action with regards to obtaining feedback from the DCARB in order to ensure that Projects and Modifications was identifying and addressing adverse trends.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section and discussions with PIO. The follow up confirms that the presentation was completed in 2016 but the continued trend report going forward into 2017 was removed from the DCARB agenda.

Assignment Review

Assignment Number: 06 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

Action Type: Recurrence Control (RC)

OPG ESMSA Contractor's to implement subcontractor management plans that will address the gaps in their subcontractor human performance that reduces the number and frequency of significant safety and human performance events. These plans will contain elements to address subcontractor selection, orientation, training, tiered subcontractor monitoring for subcontractors of subcontractors, communication, trending and score carding and will be communicated to Projects and Modifications quarterly.

Completion Criteria: OPG ESMSA Contractor's current subcontractor management plans revised, communicated to OPG and implemented in the field.

Success Criteria: Measured by having a reduced number and frequency of significant safety and human performance events as documented and reviewed by OPG ESMA scorecards.

Accepted by: Dragan Popovic
Alert Group: N-PMFPM
Due Date: September 30, 2015

Action Completion Notes

opg es msa contractor's have updated and implemented the sub-contractor management plans and have the process and procedures built into their management programs. opg reviewed the programs, procedures and processes used to manage subcontractors and found them acceptable. this action is now complete. detailed closure notes are attached in the progress notes.

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had two reschedules due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Integrity, Permanency, and Sustainability: This action is deemed suitable to meet all three of these requirements. The required review and acceptance of vendor sub contract management by OPG is documented as complete. BM-PROC-025 "Management of Subcontractors" is the process outline for Black and McDonald. EsFox has documented their program under FGP-MSA-001 "Subcontractor Management" and GD-PROC-011 OT "One Team Governing Document". Both programs identify the process for onboarding and oversight management for tier 1 and 2 sub contracts.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section and the list of scr's found under %sub contractor.

As noted in the scr search tab, search results under %sub contractor resulted in an increase from 187 in 2015 to 189 in 2016. An increase was noted in scr's categorized as a D3 (21 in 2015 to 49 in 2016). [redacted] It should be noted that this action was completed at the end of Q1 2016 and therefore time should be allotted to gauge the overall effectiveness of this action due to implementation by the vendor with regards to training of supervision to their program.

Assignment Review

Assignment Number: 07 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

Action Type: Recurrence Control (RC)

OPG ESMSA contractor's to implement a field observation program that includes paired supervisor observations. The program will need to be able to identify that supervisors are in the field delivering pre-job briefs, observing how work is being performed and that they are correcting substandard worker behaviours. Information will be trended for each quarter, negative trends will have actions developed to address the trends and the actions will be communicated to Projects and Modifications quarterly.

Completion Criteria: OPG ESMSA Contractor's current field observation program is revised, communicated to OPG and implemented in the field.

Success Criteria: Measured by having a reduced number and frequency of significant safety and human performance events as documented and reviewed by OPG ESMA scorecards.

Accepted by: Dragan Popovic
Alert Group: N-PMFPM
Due Date: Aug 28, 2015

Action Completion Notes

esmsa contractors have implemented revised field observation programs. the programs have been communicated to opg. opg reviewed both programs and found them acceptable. es fox: the current program focuses on the core 4 event free tools. the current expectation is that each supervisor performs and documents an o&c activity weekly. there are also paired observations scheduled and conducted between es fox managers and projects and modifications individuals. the quality of observations will be improved through the delivery of observation and coaching training sessions that include field mentoring. this is identified as an element in the es fox enhanced human performance improvement plan. the results/trends of the o&c reports are documented in the monthly es fox safety and human performance trend report that is provided to projects and modifications. b&m: b&m staff at opg facilities conduct o&c in accordance with bm-std-003. all managers and supervisors complete observations on standardized forms which are then entered into b&m bmr database for trending. both direct employees and sub-vendors are included in the program. the o&c findings are summarized monthly in a report that is reviewed by b&m management and provided to opg. esmsa contractors have implemented revised field observation program. the programs have been communicated to opg. opg reviewed both programs and find this action complete. es fox: es fox does have an observation and coaching (o&c) program. the current program focuses on the core 4 event free tools. the current expectation is that each supervisor performs and documents an o&c activity weekly. there are also paired observations scheduled and conducted between es fox managers and projects and modifications individuals. the quality of observations will be improved through the delivery of observation and coaching training sessions that include field mentoring. this is identified as an element in the es fox enhanced human performance improvement plan. the results/trends of the o&c reports are documented in the monthly es fox safety and human performance trend report that is provided to projects and modifications. b&m: b&m staff at opg facilities conduct o&c in accordance with bm-std-003. all managers and supervisors complete observations on standardized forms which are then entered into b&m bmr database for trending. both direct employees and sub-vendors are included in the program. the o&c findings are summarized monthly in a report that is reviewed by b&m management and provided to opg. this is action is closed. the supporting documents are attached to notes section

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had four reschedules due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action but was not effective in reducing the number of events validated by scr searches.

Integrity, Permanency, and Sustainability: This action meets all three of these requirements as the vendors' observation and

coaching program is documented. Further evidence is available as OPG also conducts oversight to ensure supervisory presence at pre-job briefs and during field visits. These are documented in oversight reports with the Darlington Projects Contract Management Office. The fact that the action did not meet the success criteria can also be attributed to the numerous delays in acceptance and time required to implement the program. This action was completed in Q1 of 2016 and therefore it can be determined that more time is required in order to see results as per the success criteria.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section and the list of scr's as described in the search tab of this EOER.

The findings from the review of the scr searches indicate an increase under all searches which indicates negative results. The success criteria for this action requires a significant reduction of significant safety and human performance events.

Assignment Review

Assignment Number: 08 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

Action Type: Recurrence Control

Implement a nuclear safety culture plan for projects and modifications. Actions to be included in the plan will be: Initial nuclear safety culture training for all supervisory staff that clearly identifies the differences between conventional safety and nuclear safety, the target group will include contract partner managers and superintendants, continuing training on SOER 10-2 for all staff, including contract partner supervisors. A communications strategy that continuously reinforces safety as the overriding priority for projects and modifications.

Completion Criteria: Nuclear safety culture plan with implementation target dates established.

Success Criteria: Complete an effectiveness review with at least one external reviewer involved to evaluate whether there is an improvement and use the current nuclear safety culture review survey data as the initial baseline.

Accepted by: Art Rob
Alert Group: N-PMD
Due Date: September 25, 2015

Action Completion Notes

ar #28177049-08 the assignment under ar# 28177049-08 for scr n-2015-04075 with regards to project related safety events at dngs (common cause) was to implement a nuclear safety culture plan for projects and modifications. nuclear safety culture training for all supervisory staff including contract partner managers and superintendants is in flight. the lesson plan attached in the notes section outlines the program which includes training on soer 10-2. also, a monthly p&m safety poster messaging campaign was kicked off in august of 2015 to reinforce specific safety messages and the continuous use of core 4 event free tools. the most recent nuclear safety culture assessment results were reviewed in the leadership alignment session on june 6, 2016 and scheduled to be rolled out to all p&m staff at the p&m q2 face-to-face meeting on june 17, 2016 and june 20, 2016. this action is complete. grant howard director, projects

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had two reschedules due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Integrity, Permanency, and Sustainability: This action is deemed suitable to meet all three of these requirements. As reported in the methodology section for this action, TIMSII identifies vendor supervision that has completed the SOER 10-2 training and is tracked under Pel # 70080. There are 10 sessions scheduled with a maximum of 24 attendees per class. The success criteria for this action calls for an effectiveness review with at least one external reviewer to evaluate whether there is an improvement in Nuclear Safety Culture traits demonstrated by all personnel in the Projects and Modifications department with focus on vendor leadership and supervision. This action was completed in June of 2016 and therefore the review should be rescheduled for 2018 in order to allow for the completion of the training by all of the vendor leadership in 2017 and allow time to perform an evaluation to determine the effectiveness of this actions benefits to be realized by the organization.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section and discussions with the site training coordinator for Projects and Modifications. A review of the TIMSII data base for evidence of course completion and course availability into 2017.

The completion notes identify the course outline (attached in the notes section) as part of the Nuclear Safety Culture Plan.

TIMSII identifies vendor supervision that has completed the SOER 10-2 training and is tracked under Pel # 70080. There are 10 sessions scheduled with a maximum of 24 attendees per class.

Assignment Review

Assignment Number: 09 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

Action Type: Recurrence Control

P&M CARB to implement the improvement initiative that was completed at Darlington and other sites.

Completion Criteria:
• All CARB members complete CARB Job Familiarization Guide (JFG).
• CARB members and EO Managers complete EO Manager workshops.

Success Criteria: P&M CAP Health Metrics White

Accepted by: Art Rob
Alert Group: N-PMD
Due Date: December 15, 2015

Action Completion Notes

april 19, 2016 - the assignment under ar# 28177049-09 for scr n-2015-04075 with regards to project related safety events at dngs (common cause) was for p&m carb to implement the improvement initiative that was completed at other sites. all current carb quorum members have provided their acknowledgement on the carb job familiarization guide (attached to the notes section) and have completed the eo manager workshop successfully. with the addition of new carb quorum members and delegate attendance, continued efforts will be made to ensure that all those attending carb meetings are qualified quorum members. this action is complete. grant howard director, projects

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had two reschedules due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Integrity, Permanency, and Sustainability: This action is deemed suitable to meet all three of these requirements. This action was completed in April of 2016 with immediate improvements realized by the end of 2016 based on the CAP health metrics in the area of effectiveness and quality of significance level 1 and 2 evaluations. There is room for improvement in the areas of timely completion. This will be realized with the vendors implementation of their own Corrective Action Program as detailed by governance changes within OPG's Corrective Action Program that outlines the requirements for vendors to perform their own evaluations and implementation of CAP's. Per discussions with performance improvement at REFURB, a data base has been completed that will track and report on the vendors overall program.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section. The Projects and Modifications CAP health report for 2016 was also reviewed. The completion notes contain as verification, a signed back managers briefing card for all P&M CARB members.

The CAP health report for 2016 indicates improvement in the area of significance level 1/ 2 quality and effectiveness overall for 2016. The report indicates negatively for timeliness in completion of significance level 1/2/3 evaluations. This can be attributed to the lack of resources available to perform these evaluations. The evaluations that are within the control of vendors has been separated with governance changes that require the vendor to use their own corrective action program which will in turn alleviate the burden for OPG to evaluate internal vendor issues.

Assignment Review

Assignment Number: 10 ***Assignment Type:*** RC-Recurrence Control

Assignment Description

Action Type: Recurrence Control

NO-2014-310 and NO-2014-319 in addition to this common cause have highlighted the gap to industry best practice. Actions are currently in progress as documented in SCR D-2014-18875 (Supplemental Worker AFI) and in N-2014-21559 (Project Management Program Guidance) which will result in revised governance to align with industry best practices documented in AP

930.

Completion Criteria: Change management and implementation plan for contract management governance and process implemented that aligns with AP 930.

Success Criteria: For field work performed by supplemental workers, risk based oversight is implemented.

Accepted by: Dragan Popovic
Alert Group: N-PMFPM
Due Date: July 15, 2015

Action Completion Notes

see completion notes and attachments in ole

added from the notes section under this action as part of this EOER: Closure notes written by D.Simone and input by C.Cawker. Action recap: develop a Supplemental Oversight procedure similar to WANO document AP930. Completion Notes: An OPG wide governance standard has been introduced (N-STD-AS-0032) that outlines the guiding principles and objectives associated with maintaining high standards as they relate to the oversight of supplemental personnel. An Instruction (N-INS-00120-10026) Supplemental Personnel Oversight and associated N-FORM-11692 have also been developed and are active in AS7. Action is deemed complete and closed. Daniel Simone November 27, 2015.

Any Negative Impact for Corrective Action?

There were no examples of any negative impact resulting from this corrective action.

Action Effectiveness Disposition

Timeliness: This action had two reschedules due to the delays noted in accepting the report with revised action due dates. The extensions were granted and documented inside of the completion notes. The completion notes indicate that the action was completed and satisfied the intent of the action.

Integrity, Permanency, and Sustainability: This action is deemed suitable to meet all three of these requirements. This action was completed in September of 2015 and is part of departmental improvements to oversight of supplemental staff at a programmatic level.

Methodology Used / Evidence Found

The methodology used for this review was to review the completion notes and the attachments in the notes section. The notes section contain N-INS-00120-10026 "SUPPLEMENTAL PERSONNEL OVERSIGHT". The process for managing oversight based on risk is further enhanced by Project Oversight Planning and Construction Oversight Planning that is housed within the Oversight Reporting Tool used by the Darlington and Pickering CMO by field engineering and contract management personnel. A risk based approach is applied to direct oversight activities based on risk to safety/cost and schedule.

Assignment Review

Assignment Number: 11 ***Assignment Type:*** E-Enhancement Action

Assignment Description

Perform pre-effectiveness check for corrective action plan. The EO manager is to establish a meeting with the Performance Improvement Manager before this action's due date. The purpose of the meeting is for the EO manager and Performance Improvement to conduct a preliminary review on the CAP action completion notes including: 1) Did you do what you committed to? and 2) Did you document it clearly (who, what, when) ? This assignment will be considered complete when the meeting has been conducted, and a path forward on effectiveness has been established.
TCD: 4 weeks after last RC action (SCRR) to allow for meeting to occur.

Action Completion Notes

the action for ar# 28177049-11 with regards to project related safety events for scr d-2015-04075 was to perform a pre-effectiveness review of the corrective action plan. the actions completion notes and associated attachments were reviewed for completion criteria as per n-form-11240 action tracking completion notes checklist. feedback was received from performance improvement s. cake on july 12, 2016. the findings from the feedback will be addressed and tracked via management action # 28191184-01 due on 30sep2016. this action is complete. grant howard director, projects.

Any Negative Impact for Corrective Action?

N/A

Action Effectiveness Disposition

N/A

Methodology Used / Evidence Found

N/A

Assignment Review

Assignment Number: 12 ***Assignment Type:*** EOER

Assignment Description

In accordance with N-PROC-RA-0022. section 1.15; EO CA Effectiveness Reviews shall be conducted in accordance with N-GUID-01966-10001, Evaluating Organization Effectiveness Reviews and checklist N-FORM-11159, Evaluating Organization Effectiveness Review Checklist and documented using N-PROC-RA-0097, Self-Assessment and Benchmarking. Schedule for completion of the effectiveness review shall be commensurate with the nature of the CAs, not to exceed 6 months from when the last CAPR is completed.
Completion notes to clearly state whether cap is effective or ineffective and state Self Assessment #. When creating the Self assessment, choose Level = Snapshot and Plan Type = EO Effectiveness Review.

Action Completion Notes

Any Negative Impact for Corrective Action?
N/A
Action Effectiveness Disposition
N/A
Methodology Used / Evidence Found
N/A

Assignment Review
Assignment Number: 13 ***Assignment Type:*** S-One Time Fix
Assignment Description
This assignment is to review the root cause report for D-2015-04075 for applicability at DNGS Refurb. If found to be applicable please follow the OPEX process as per N-PROC-RA-0035
Action Completion Notes
scr d-2015-04075 has now been completed. full information is located in the inprog notes with a document attached. notes entered by d hudson for ken hobbs.
Any Negative Impact for Corrective Action?
N/A
Action Effectiveness Disposition
N/A
Methodology Used / Evidence Found
N/A

Assignment Review
Assignment Number: 14 ***Assignment Type:*** S-One Time Fix
Assignment Description
This assignment is to review the root cause report for D-2015-04075 for applicability at Pickering. If found to be applicable please follow the OPEX process as per N-PROC-RA-0035
Action Completion Notes

Any Negative Impact for Corrective Action?
N/A
Action Effectiveness Disposition
N/A
Methodology Used / Evidence Found
N/A

Conclusions/Verifiable Evidence

The determination for this EOER is INEFFECTIVE due to subsequent events since the evaluation was completed and while the corrective action plan was being implemented.

The CAP developed as a result of the B2 evaluation for SCR D-2015-04075 Project Related Safety Events at DNGS (Common Cause) was actually completed on May 1st, 2015. There were numerous revisions and delays to acceptance of the report and the associated actions. The actions main objective was to address the lack of vendor, sub vendor management and OPG oversight in the areas of safety during execution and the attitudes surrounding the traits of a nuclear safety culture.

Of the common causes identified (5), the resulting RC actions were agreed to and after numerous extensions, were completed between September of 2015 to June of 2016. Based on the completion dates it can be determined that the CAP could not have been executed in time to allow for the actions to take full effect. Time to integrate the requirements into daily work execution in order to reduce vendor and sub vendor performance is required. Time is also required to allow the remainder of the actions with regards to vendor leadership training which includes field supervisory training and development to evolve.

[redacted]. A review of the OPG Safety Performance Report for 2015 and 2016 supports this finding. There were 4 major evaluations (2 C2's and 2 B2's) completed by Projects and Modifications in 2016 resulting in approximately 40 actions. [redacted]

[redacted]

This CAP is being deemed Ineffective because, from Sept 2015 to Dec 2016, there were still a number of significant project related safety events at Darlington. As documented in this EOER, the individual corrective actions taken have now been completed and resulted in some improvements. There is limited value (cumulative impact) in conducting additional analysis and it is recommended that no further corrective actions are taken via this SCR and no additional EOERs are completed. Rather, further improvements will be driven and evaluated for effectiveness through existing corrective action plans and the P&M Nuclear Safety Culture Improvement Plan.

SCR D-2017-05050 has been filed to document this ineffective EOER.

Recommendations/Actions

Recommendations

1. Review the actions from the B/C2 evaluations in 2016 to determine any duplicates or gaps exist.

2. Schedule vendors and OPG personnel to Pel 70080 SOER 10-2 training.

3. Perform a review of the 2015/2016 vendor O&C data.

4. Review the JVs O&C program.

5. Review the JVs sub contractor management program.
Vendor paired observation

Actions

Post CARB Comments

D17-000282 EOER complete. Closed to N017-0001381-SA/D-2017-05050. CARB concurred.
Updated Post CARB Comments; executive summary unavailable after SA CARB approved and closed.
D17-000282 recommendations will be assessed under N017-0001381-SA.

Quality Review

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