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Ontario Power Generation Procedure

TITLE
SAFETY INCIDENT INVESTIGATION AND CORRECTIVE ACTIONS

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PURPOSE
<p>This procedure establishes the requirements for the investigation of safety incidents and the implementation of corrective actions in Ontario Power Generation (OPG). This procedure applies to all safety incidents:</p> <ul style="list-style-type: none"> Involving OPG workers performing work as defined in OPG-PROC-0120, Safety Incident and Regulatory Event Response. Affecting OPG workers as a result of OPG operations and facilities. <p>Involving contractors, where OPG is the constructor and the safety incident occurs at an OPG workplace, or is associated with OPG operations.</p>

DATES (YYYY-MM-DD)

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EXCEPTIONS

This procedure does not apply to:

- OPG safety incidents excluded from reporting as per OPG-PROC-0120.
- Safety incidents deemed to be “Privileged and Confidential” by OPG Law Division.
- Contractor “owner only” safety incidents.
- Public Safety Incidents.
- Security incidents –Refer to OPG-STD-0067, Security Incident and Deficiency Reporting Standard or applicable Nuclear Instruction, N-INS-61400-10033, Nuclear Security Reporting Procedures for the process to be followed.

Investigations of workplace violence and harassment as defined in the Occupational Health and Safety Act (OHSA). Refer to OPG-PROC-0075, Violence Free Workplace Procedure and OPG-PROC-0099, Human Rights and Harassment Procedure.

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1.0 DIRECTION

1.1 Guiding Principles

A safety incident investigation is the systematic evaluation of an event - that did, or could, result in an injury – to determine the cause in order to develop corrective actions to eliminate or reduce the possibility of similar types of safety incidents occurring in the future.

- (a) All safety incidents at OPG (Ontario Power Generation) require a management fact finding.
- (b) Accountabilities in regard to safety incident investigation are clearly defined at all levels.
- (c) Legal advice shall be obtained from Law Division in regard to safety incident investigation where necessary.
- (d) Businesses shall be provided with guidance from Environment, Health and Safety, as necessary, to determine the following:
 - (1) Appropriate type of investigation.
 - (2) General process for investigations.
 - (3) General format, content and quality of investigation reports.
- (e) The objective of a safety incident investigation is to:
 - (4) Identify the cause(s).
 - (5) Develop recommendations for corrective actions.
 - (6) Improve safety performance.

2.0 GENERAL REQUIREMENTS

2.1 Classification of Safety Incidents

- (a) Line management, with assistance from Environment, Health and Safety as necessary, shall determine the classification of a safety incident as detailed in OPG PROC-0120, Safety Incident and Regulatory Event Response.
- (b) Classifications for safety incidents include:
 - (1) OPG Safety Incident – A safety incident involving either OPG or a contractor where OPG is the Constructor on a Construction Project or where the contractor works under the supervision of an OPG employee (as augmented staff).

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- (2) Contractor “Owner Only” Safety Incident – A safety incident involving a contractor where OPG has assumed the role of “owner only” and OPG staff do not direct or supervise the work.
 - (3) Public Safety Event – An event that results in, or has the potential to result in, an injury or fatality to a member of the public primarily resulting from or caused by OPG’s facilities or operations.
- (c) Only “OPG Safety Incidents” shall be investigated under this procedure.

2.2 Management Fact-Finding

When a safety incident is confirmed, line management has legislative and corporate obligations to fulfil based on what occurred. This includes:

- (a) Conducting a fact-finding exercise as soon as feasible which may include visiting the site and/or securing it pending further investigation

Note: Where a *fatality* or *critical injury* has occurred, secure the incident scene so it remains undisturbed until released by Local Authorities and the Ministry of Labour (MOL) inspector.

Where an incident scene cannot be secured because it poses a risk to workers or member of the *public* or may cause unnecessary damage to equipment, ensure that evidence is gathered and preserved to the extent possible.

- (b) Review the need to provide the affected JHSC an opportunity to participate in a fact-finding exercise.

Note: A tripartite fact-finding exercise is encouraged to help facilitate dialogue throughout the investigation and MRPH rating process.

- (c) Ensure the following steps are conducted during the fact-finding exercise:
 - (1) Collect evidence, e.g., secure the scene, quarantine damaged equipment, photograph scene, take measurements as required, etc.
 - (2) Interview affected workers.
 - (3) Gather relevant documentation, e.g., safe work plans, work packages, work procedures or process, etc.
 - (4) Perform testing or sampling as required. **Note:** if testing or sampling is required, ensure a designated JHSC member is notified and provided the opportunity for attendance during the testing or sampling process.
 - (5) Determine the need for further investigation as per Section 3.0.
- (d) Identify and implement interim fixes.

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- (e) Engage JHSC in classification of Maximum Reasonable Potential for Harm (MRPH) rating and investigation type determination.
- (f) Complete and submit the Corporate Report of Injury/Incident, myCority Safety Event Report, or Station Condition Record (SCR), as appropriate.
- (g) Prepare the initial safety and environment flash report, if applicable, to assist in sharing Operating Experience (OPEX) within OPG.

2.3 Types of Investigations

- (a) Based on the results of the fact finding or field investigation, line management shall determine if further investigation is warranted. Line management is also responsible for determining the appropriate investigation type with input from the affected JHSC.
- (b) If an incident involves site Contractors, the Business Level Authority (BLA) will determine if OPG will lead the investigation or if the investigation will be led by, and fall within, the Contractor’s own Health and Safety Managed System. Refer to Section 3.2 “Contractor-Led Investigations”.

3.0 OPG LED INVESTIGATIONS

- (a) Line Management shall determine the appropriate type of investigation as follows:
 - (1) **Root Cause Investigation** – Conducted by a team or single investigator where the management system needs to be reviewed. This may also be assigned for repeat events of a complex nature, possibly involving multiple root causes.

A root cause investigation may be appropriate for events where:

 - (i) Event is complex, e.g., multiple crews, multiple energies, multiple barrier failures.
 - (ii) There are broad implications for the site, business or corporation.
 - (iii) Cause(s) not immediately obvious (obscure).
 - (iv) Complex barriers and controls involved.
 - (v) Requires the use of multiple investigation analysis techniques.
 - (2) **Apparent Cause Investigation** – Conducted by a single investigator or a team to determine apparent cause(s) of the event.

An apparent cause investigation may be appropriate where:

- (i) Failure mechanisms and incident causes are readily apparent, e.g., defective tool used, wrong tool used.
- (ii) Sufficient information available at the time of the safety incident to determine recommendations for corrective actions.

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- (iii) Procedural non-compliance, e.g., worker failed to follow requirements.
 - (iv) Causal factor(s) outside control of OPG, e.g., motor vehicle accident.
 - (v) Procedural deficiency, e.g., wrong operating sequence in procedure.
- (3) **Technical Investigation** – Requiring either a single or multiple technical experts, e.g., Professional Engineer, material scientist, laboratory analysis, industrial hygienist, needed to determine the technical reason for failure leading to the safety incident. A technical investigation may be appropriate in cases of equipment or structural failure design deficiencies.
- (4) **Other Investigation Types** – Different investigation types will be considered for implementation and use. Prior to the selection of another investigation type, review to determine if they meet tripartite approval by the Joint Working Committee (JWC), and are not in contravention of any collective agreements or Letters of Understanding (LOUs) shall be conducted. As applicable, participants shall have been provided adequate training.
- (b) The decision on the type of investigation shall be communicated to:
- (5) Affected Joint Health and Safety Committee (JHSC).
 - (6) Corporate Environment, Health and Safety.

3.1.1 Discipline

- (a) Information obtained during a root cause, apparent cause or technical investigation process shall not be used for disciplinary purposes and an individual involved in the disciplinary process associated with the safety incident being investigated shall not be a member of the investigation team.
- (b) When requesting that a bargaining unit assign their member to a team investigation, line management shall notify the bargaining unit representatives of any disciplinary matters which are underway.

3.1.2 Qualifications

- (a) Lead investigators for team root cause investigations shall be qualified.
- (b) Corporate Environment, Health and Safety shall ensure that there is a list of qualified lead investigators for root cause investigations.
- (c) Apparent cause investigators shall be qualified.
- (d) Technical investigations shall be conducted by individuals with training, knowledge and experience in the work, equipment or design factors.

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3.1.3 Classification – Privileged and Confidential

- (a) Line management shall, with input from Environment, Health and Safety, consult with Law Division on any safety incident where there may be a potential for legal action, e.g., Ministry of Labour (MOL) charges.
- (b) Where Law Division determines the potential for legal action exists from any safety incident investigation, “Privileged and Confidential”, shall apply with the following conditions:
 - (1) Law Division is the client for the investigation and no local records are maintained.
 - (2) Law Division approves any distribution of the report.
- (c) Where a team is involved, the lead investigator for the investigation shall:
 - (1) Communicate this classification to all team members.
 - (2) Indicate the requirement for restrictions on information and circulation of reports.

3.1.4 Classification – OPG Confidential

- (a) All investigations that are not classified as “Privileged and Confidential” shall be classified as “OPG Confidential” investigations. Refer to Appendix - Confidentiality.
- (b) Where a team is involved, the lead investigator for the team shall:
 - (1) Communicate this classification to all team members.
 - (2) Indicate the requirement for restrictions on information and circulation of reports.

3.2 Team Investigations

- (a) Where a safety incident requires a team investigation, it shall be arranged by line management who should assign a lead investigator.
- (b) The client for the investigation will be the BLA or their delegate.
- (c) Where the safety incident has been rated a High MRPH and a team is assigned to the investigation, the Regional Pool process shall be used to obtain team members representing their bargaining unit and a Terms of Reference (TOR) shall be provided before the bargaining unit member is assigned. Refer to Appendix B, Team Investigation Process.
- (d) Whenever a team is appointed to conduct an investigation, line management shall invite the affected bargaining units to participate on the investigation team and the affected bargaining unit shall select their representative.
- (e) Where line management considers a team investigation is **not** warranted for a High MRPH safety incident, the following shall apply:

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- (1) The affected JHSC notified of management’s intent not to conduct a team investigation.
- (2) A discussion of the rationale for not conducting a team investigation with local JHSC co-chairs (delegate) occurs. This rationale must also be provided to the Director, Corporate Environment, Health and Safety.
- (3) Management is to seek endorsement from the JHSC co-chairs before a final decision is made and any concerns from the committee members should be dispositioned at this time.
- (4) Where either of the JHSC co-chairs does not endorse the decision, line management documents the concerns and provides them to the BLA for review with line management’s request to forego a team investigation. The Director, Corporate Environment, Health and Safety is also provided with this information.
- (5) Line management follows the BLA’s direction on whether or not a team investigation is conducted.
- (6) Director, Corporate Environment, Health and Safety notifies the Joint Health and Safety Working Committee of the outcome of steps 1 to 5 for discussion.

Note: Refer to Appendix C, High Maximum Reasonable Potential for Harm – Team Investigation Flow Chart.

- (f) For High MRPH team investigations involving an OPG contractor, the following additional considerations shall apply:
 - (1) Line management requests contractor participation by a contractor representative and a trade union representative who are familiar with the work activity in the location where event occurred, unless Law Division determines contractor participation is not appropriate due to the type or circumstance of the event, e.g., fatality, potential for MOL charges, etc.
 - (2) Contractor safety management system is included in the scope in TOR.
 - (3) Contractor and their representatives are bound by same requirements for “OPG Confidential” classification.

3.3 Root Cause Investigations

3.3.1 Terms of Reference

- (a) A Terms of Reference (TOR) for root cause investigations shall be prepared by line management using OPG-FORM-0095, Terms of Reference – Safety Incident Investigation or N-FORM-10139, Investigation Terms of Reference.
- (b) The TOR shall be provided by line management prior to the start of the investigation to the following:
 - (1) Lead investigator.

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- (2) Director, Corporate Environment, Health and Safety.
- (3) Affected bargaining unit representative for Regional Pool process when a team is involved for High MRPH investigations.

3.3.2 Process and Report

- (a) The root cause investigation shall include, but is not limited to, the following:
 - (1) Event Description, e.g., specific location, date and time, overtime, planned or emergent work, supervisory oversight, Safe Work Plan, type of injury or near-miss, work group(s) involved.
 - (2) Discussion of the appropriateness of the MRPH rating.
 - (3) Review of similar events or conditions within OPG as determined by the team leader, e.g., OPEX.
 - (4) Review of relevant documents, e.g., procedures, instructions, training, etc.
 - (5) Detailed description of what happened, e.g., timeline, what happened, pictures of work area/activity.
 - (6) Detailed description of how it happened.
 - (7) Detailed description of why it happened, e.g., error precursors, causal factors, root causes, contributing causes.
 - (8) Recommendations for corrective actions.
- (b) The investigation report will be:
 - (1) Prepared by the lead investigator when a team is involved.
 - (2) Marked as “OPG Confidential” and printed with a DRAFT watermark.
 - (3) Provided to and discussed with the line manager and DRAFT watermark.
 - (4) Provided to and discussed with the line manager and all members of the team, where applicable.
 - (5) Approved by the line manager, with guidance from Corporate Environment, Health and Safety as necessary, at which time the report will be marked FINAL.
- (c) Line management shall:
 - (1) If there is additional information of value to communicate beyond that contained in the initial Safety Flash Report, complete the Safety Flash Report – Summary of Investigation with causal factors and corrective actions and provide to Health and Safety. Refer to OPG-PROC-0120.

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- (2) Distribute final investigation reports to:
 - (i) Director, Corporate Environment, Health and Safety.
 - (ii) Appropriate line management as required.
 - (iii) Affected JHSC

- (d) The Director, Corporate Environment, Health and Safety shall provide a copy of the final report with the cover letter on confidentiality to the designated bargaining unit Joint Working Committee (JWC) members. Refer to Appendix A.

- (e) OPG “Privileged and Confidential” investigation reports shall be the sole property of Law Division and they shall determine which sections of the report shall be distributed.

3.4 Apparent Cause Investigations

- (a) Where a safety incident requires an apparent cause investigation, it shall be arranged by line management.

 - (b) A TOR may be produced using OPG-FORM-0095, or for Nuclear N-FORM-10139.

 - (c) Where a team is used for the investigation, line management should appoint a lead investigator and contact the affected bargaining units for their representatives.

 - (d) The report of the investigation shall:
 - (1) Define the problem.
 - (2) List the pertinent facts and information.
 - (3) Discuss the appropriateness of the MRPH rating.
 - (4) Review previous similar conditions, e.g., OPEX.
 - (5) Provide recommendations for corrective actions.
 - (6) Be marked “OPG Confidential”.
 - (7) If applicable, disclose any differences amongst the team in the form of a Minority Report, written by the team member(s) in disagreement, attached as appendix or similar within the report before distribution.

 - (e) When the investigation is complete, line management shall:
 - (1) Review and approve the report.
- Note:** Where a team is involved in an apparent cause investigation, the lead investigator prepares the report.

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- (2) Send copies of the final report to Director, Corporate Environment, Health and Safety and ensure that the affected JHSC is provided a copy or has the necessary means to access to it.

3.5 Technical Investigations

- (a) Where a safety incident requires a technical investigation, it shall be arranged by line management.
- (b) A TOR may be produced using OPG-FORM-0095 or N-FORM-10139.
- (c) The investigation report shall:
 - (3) Include the results of examination or testing of equipment component or system that failed in order to identify mode of failure, e.g., fatigue, corrosion, overload.
 - (4) Review any design issues that may have contributed to event.
 - (5) Review previous similar conditions or OPEX.
 - (6) Provide recommendations for corrective actions.
- (d) Line management shall:
 - (1) Review and approve the report.
 - (2) Send copies of the final report to Director, Corporate Environment, Health and Safety and ensure that the affected JHSC is provided a copy or has the necessary access to it.

3.6 Corrective Actions

- (a) Line management shall develop a Corrective Action Plan (CAP) to address the recommendations from the final investigation report.
- (b) The CAP shall be provided within 90 days of the assignment of the type of investigation for the safety incident to the following:
 - (1) BLA.
 - (2) Director, Corporate Environment, Health and Safety upon BLA approval of the CAP.
- (c) If there is an affected bargaining unit in the investigation, the affected JHSC members shall be provided with the opportunity to review the management approved CAP.
- (d) The BLA shall establish a process for follow up of the CAP for all High MRP safety incident investigations to address:

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- (1) Tracking and monitoring of specific actions and their completion dates.
- (2) Providing updates on status to Total Rewards and Solutions Centre and local JHSC on request.
- (e) For High MRPH team investigations involving a contractor, the following additional conditions shall apply:
 - (1) CAP developed with input from the contractor’s management.
 - (2) Contractor agreement required for all corrective actions assigned to them.
 - (3) Trade Union representative provided with opportunity to review approved CAP.

4.0 CONTRACTOR-LED INVESTIGATIONS

Intent: The following section on contractor-led investigations is not intended to require contractors to complete investigations of their incidents that occur on OPG property, but rather give flexibility to the accountable OPG BLA to allow contractor investigations under appropriate circumstances.

4.1.1 General Requirements

- (a) When an incident occurs that falls within the control of a site Contractor and does not affect employees of an OPG bargaining unit, OPG Line Management can decide to allow the applicable investigation to be completed by the Contractor.
- (b) OPG Line Management will determine a contractor’s ability to conduct an investigation under the above condition with consideration of the contractor’s ability and resources to conduct a quality investigation, including the maturity of the safety program, managed system, experience leading investigations, and OPG’s trust that the investigation will be completed with quality and to OPG’s expectations.
- (c) The output of a contractor-led investigation is to improve the contractor’s own H&S Managed System, however as the precipitating event occurred on OPG property and as OPG is the Constructor, OPG shall maintain oversight and acceptance of the final investigation report and corrective actions.

4.1.2 Qualifications

Lead investigators shall be deemed competent and be trained by their employer in the contractor’s investigation program in the applicable investigation methods.

4.2 Team Investigations

- (a) Where the safety incident has been rated a High MRPH and a team is assigned to the investigation, the affected bargaining unit shall be given the opportunity to provide a representative to be a member of the team.

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- (b) Where contractor management considers a team investigation is **not** warranted for a High MRPH safety incident, the following shall apply:
 - (4) The affected JHSC is notified of management’s intent not to conduct a team investigation.
 - (5) A discussion of the rationale for not conducting a team investigation with affected JHSC co-chairs (delegate) occurs. This rationale, including any possible areas of disagreement from the affected JHSC must also be provided to the Director, Corporate Environment, Health and Safety who will advise the OPG BLA on process expectations.
 - (6) Contractor management will follow the OPG BLA’s direction on whether or not a team investigation is conducted.

4.3 Root Cause Investigations – Process and Report

- (a) The root cause investigation shall follow the vendor’s root cause investigation requirements including but not limited to, the following:
 - (1) Event Description, e.g., specific location, date and time, overtime, planned or emergent work, supervisory oversight, Safe Work Plan, type of injury or near-miss, work group(s) involved.
 - (2) Review of relevant documents, e.g., procedures, instructions, training, etc.
 - (3) Detailed description of what happened, e.g., timeline, what happened, pictures of work area/activity.
 - (4) Detailed description of how it happened.
 - (5) Detailed description of why it happened, e.g., error precursors, causal factors, root causes, contributing causes.
 - (6) Recommendations for corrective actions.
- (b) The investigation report will be:
 - (1) Provided to and discussed with the line manager and the team, where a team has been utilized.
 - (2) Reviewed for quality and completeness by the OPG BLA
 - (3) Filed by OPG as appropriate to ensure traceability and controlled access rights to enable confidentiality when required.
- (c) OPG Line management shall:
 - (1) If there is additional information of value to communicate beyond that contained in the initial Safety Flash Report, complete the Safety Flash Report – Summary of

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Investigation with causal factors and corrective actions and provide to Health and Safety. Refer to OPG-PROC-0120.

- (2) Distribute final investigation reports to:
 - (i) Director, Corporate Environment, Health and Safety.
 - (ii) Appropriate OPG line management as required and ensure that the affected JHSC is provided a copy or has the necessary access to it.
- (d) Unless deemed to be confidential by the OPG BLA, a copy of the final report will be made available to the Joint Working Committee members. Rationale for not showing the report will be shared with the JWC upon request.

4.4 Apparent Cause Investigations

- (a) Where a safety incident requires an apparent cause investigation, it shall be arranged by the contractor.
- (b) Where a team is used for the investigation, the contractor should appoint a lead investigator and contact the affected bargaining units to allow for participation in the investigation.
- (c) The report of the investigation shall:
 - (1) Define the problem.
 - (2) List the pertinent facts and information.
 - (3) Provide recommendations for corrective actions.
- (d) When the investigation is complete, OPG line management shall:
 - (1) Review the report for quality and completeness
 - (2) File the report as appropriate to ensure traceability and controlled access rights to enable confidentiality when required.

4.5 Technical Investigations

- (a) Where a safety incident requires a technical investigation, it shall be arranged by the contractor
- (b) The investigation report shall:
 - (1) Include the results of examination or testing of equipment component or system that failed in order to identify mode of failure, e.g., fatigue, corrosion, overload.
 - (2) Review any design issues that may have contributed to event.

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- (3) Provide recommendations for corrective actions.
- (c) OPG Line management shall:
 - (1) Review the report for quality and completeness
 - (2) File the report as appropriate to ensure traceability and controlled access rights to enable confidentiality when required.

4.6 Corrective Actions

- (a) The contractor shall develop a Corrective Action Plan (CAP) to address the recommendations from the final investigation report.
- (b) The CAP shall be provided within 90 days of the assignment of the type of investigation for the safety incident to the following:
 - (1) OPG BLA.
 - (2) Director, Corporate Environment, Health and Safety upon OPG BLA approval of the CAP.
- (c) The affected JHSC members shall be provided with the opportunity to review the management approved CAP.
- (d) The OPG BLA shall establish a process for follow up of the CAP for all High MRPH safety incident investigations to address:
 - (1) Tracking and monitoring of specific actions and their completion dates.
 - (2) A scheduled review of the effectiveness of controls implemented by the contractor.

5.0 ROLES AND ACCOUNTABILITIES

5.1 Business Level Authority

- (a) Determine accountability and delegate authorities with direct reports to implement the requirements of this procedure
- (b) Ensure investigation reports meet the established requirements.

5.2 Managers and Supervisors

- (a) Determine MRPH and type of investigation for safety incidents.
- (b) Provide administrative and logistical support to an investigation team as required.
- (c) Manage reports of unsafe conditions when notified by the lead investigator.

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5.3 Director, Corporate Environment, Health and Safety

- (a) Review safety incident type of investigation decisions as deemed necessary.
- (b) Ensure that the status of team investigations for High MRPH safety incident investigations is monitored, recorded and reported as required.
- (c) Ensure that the relevant documentation for each High MRPH safety incident investigation is filed in the Corporate Records system (File Number 08965.24), e.g., TOR, investigation report, CAP, documentation on the decision not to carry out a team investigation.
- (d) Ensure that High MRPH investigation reports are reviewed for quality.

5.4 Vice-President, Solutions Centre and Total Rewards

- (a) Monitor record and report CAP status, as required.
- (b) Prepare a report of the status of outstanding corrective actions quarterly.

5.5 Law Division

- (a) Provide advice to BLA, Line Manager and Director, Corporate Environment, Health and Safety as required.
- (b) Review all written material e.g., investigation reports, accident reports to the MOL, press releases, depersonalized summaries, prior to distribution where it is determined the potential for legal action exists from any safety incident investigation.
- (c) Be consulted prior to any investigation by OPG involving members of the public or involving contractors where OPG assumes the role of “owner only”.

6.0 DEFINITIONS AND ACRONYMS

6.1 Definitions

Affected Bargaining Unit: As per Joint Working Committee Interpretation (23JUN2005), a bargaining unit is considered affected if a safety incident involves the following:

- (a) Risk of exposure to a member of the bargaining unit i.e. a physical risk.
- (b) Potential liability to a member of the bargaining unit i.e. a supervisor, project leader, contract monitor

Business Level Authority (BLA): Executive Vice-President or Senior Vice-President of a Business responsible to implement this procedure

Fact Finding: The gathering of pertinent information from observation of the work site and equipment involved and interviews with affected worker(s) by the supervisor or line manager.

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Maximum Reasonable Potential for Harm (MRPH): A rating system used to classify safety incidents and to determine the appropriate level of investigation. Each safety incident is reviewed on an individual basis, i.e., on the actual circumstances of the specific event to determine the rating where “reasonable potential” needs to satisfy all three following conditions:

- (a) Energy level was or may have been sufficiently high to cause injury.
- (b) Control of energy was less than adequate, e.g., lack of planned and deliberate barriers; safety barriers were ineffective, weak, or missing.
- (c) Likelihood of worker exposure.

Minority report: A separate report presented by members of a committee or other group who disagree with the majority.

myCority: Environment, Health and Safety (EHS) software to document and record health and safety related events.

Owner Only: OPG is considered the “owner only” where there are contractors who are working in a “construction island” and there is a Constructor other than OPG. A “construction island” is an area physically separated from OPG controlled areas by clearly defined physical boundaries within which construction activities occur that are controlled by a Constructor other than OPG.

Public Safety: Conditions and factors primarily resulting from or caused by OPG operations and facilities that affect the well being of the public. Conditions and factors do not include those related to environmental impacts that can affect the health of the public.

Qualified: A worker who possesses knowledge, experience and training and demonstrates familiarity with the rules, procedures, equipment and hazards.

Safety Incident: Where all three of the following conditions are met, the event shall be classified as a safety incident:

- (a) There is an unwanted energy flow or reasonable potential for unwanted energy flow with sufficient energy to cause a work-related injury or illness to an OPG or contractor worker.
- (b) Control of energy was less than adequate, e.g., lack of planned and deliberate barriers, or safety barriers were ineffective, weak, missing.
- (c) OPG or contractor worker exposure or reasonable potential for exposure to the unwanted energy exists.

Security Incident: A circumstance or event involving the occurrence of:

- (a) Actual, suspected, potential, or threatened loss or harm to persons, property, facilities, information, or other assets.
- (b) Known or suspected illegal acts or violations of the Code of Business Conduct. Refer to OPG-STD-0067, Security Incident and Deficiency Reporting Standard.

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6.2 Abbreviations and Acronyms

BLA	Business Level Authority
CAP	Corrective Action Plan
EHS	Environment, Health and Safety
JHSC	Joint Health and Safety Committee
JWC	Joint Working Committee
MOL	Ministry of Labour
MRPH	Maximum Reasonable Potential for Harm
OHSA	Occupational Health and Safety Act
OPEX	Operating Experience
OPG	Ontario Power Generation
PWU	Power Workers' Union
SCR	Station Condition Record
Society	Society of Energy Professionals
TOR	Terms of Reference

7.0 BASES, RECORDS AND REFERENCES

7.1 Bases

None

7.2 Records

The following records may be generated by use of this document and shall be registered in appropriate document management system in accordance with the following table.

Record Created	Associated Form or Template Number	QA Record? Y/N	Filing Information/Retention (AIMS Type/Sub-Type)
Terms of Reference – Safety Incident Investigation	OPG-FORM-0095	N	Retained by Department Document Number: Filed under SCI 08965.24 Records Retention Code (RRC): HS1-0001 Retention: Permanent
Incident Investigation Terms of Reference	N-FORM-10139	N	File in accordance with N-STD-RA-0008 Incident Investigation
Investigation Reports	NA	N	Retained by Department Document Number: Filed under SCI 08965.24 Records Retention Code (RRC): HS1-0001 Retention: Permanent

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7.3 References

7.3.1 Performance References

- [R-1] N-FORM-10139, Incident Investigation Terms of Reference.
- [R-2] N-INS-61400-10033, Nuclear Security Reporting.
- [R-3] OPG-FORM-0095, Terms of Reference – Safety Incident Investigation.
- [R-4] OPG-PROC-0099, Human Rights and Harassment Procedure.
- [R-5] OPG-PROC-0075, Violence Free Workplace.
- [R-6] OPG-PROC-0120, Safety Incident and Regulatory Event Response.
- [R-7] OPG-STD-0067, Security Incident and Deficiency Reporting.

7.3.2 Developmental References

- [R-8] GEN-PW-1005, Incident Ratings and Investigations.
- [R-9] JWC Communication re Team Investigations for High MRPH Safety Incidents (2008).
- [R-10] N-STD-RA-0008, Incident Investigation.
- [R-11] N-PROC-RA-0020, Preliminary Event Notification.
- [R-12] N-PROC-RA-0022, Processing Station Condition Records.
- [R-13] NUC-PW-1004, Incident Ratings and Investigations.
- [R-14] OPG-STD-0030, Protecting OPG’s Information and Intellectual Property.
- [R-15] Regional Pool Agreement (2004).
- [R-16] Society LOU #134, Incident Ratings and Investigations

8.0 REVISION SUMMARY

This is an **intent** revision. Revision bars were used.

- Formatted to new template document.
- Updated based on recommendations from the JWC subcommittee MRPH team.
 - Revision to section 2.2 Management Fact-Finding

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- Engagement and involvement of JHSC members
- Revised title of Director, Corporate Health and Safety to Director, Environment, Health and Safety.
- Added Definition of Minority Report and myCority.

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**Appendix A:
Confidentiality**

MEMORANDUM

OPG Confidential

File No.: 08965.23/P

SAFETY INCIDENT TEAM INVESTIGATION REPORT – COVER LETTER

REPORT TITLE:

SCR or IMS NUMBER and RETENTION:

DATE:

The attached Safety Incident Investigation Report (the “Report”) is provided to you in the spirit of the Internal Responsibility System to enhance safety at OPG.

- A. The Report is provided to you for information purposes only. Acceptance and retention of the attached Report shall be deemed to be conclusive evidence of your acceptance of the terms and conditions contained in this cover letter. Where distribution of this report is allowed by the terms of this cover letter, the party distributing the report must advise the party receiving the report that the terms of the cover letter must be adhered to.

Classification:

This Report is classified as “OPG Confidential”. Consequently, access to the Report is limited to OPG employees, contractors and business partners with a valid OPG business related “need-to-know” purpose. This Report contains OPG proprietary and confidential information which is the exclusive property of OPG.

Access to the Report:

A number of parties have been approved to receive a copy of this Report on the condition that such parties use the Report only for valid OPG purposes and do not distribute this Report or communicate its contents internally within or externally to OPG except in accordance with this cover letter. The parties approved to receive a copy of the report upon their request are: the relevant workplace JHSC Co-Chairs, members of the OPG JWC, and OPG management who require access to the Report in connection with corrective actions relating to the Report. The accountable line manager may also approve access for others upon request.

Distribution:

Distribution or communication of this Report or any of its contents to parties internal or external to OPG is prohibited, other than as set out in this cover letter. This prohibition includes but is not limited to the Ontario MOL and any employers other than OPG.

- B. For clarification relating to Section “A”, above, the JHSC Co-Chairs or JWC members may share the enclosed Report with Union elected representatives, Union Legal Counsel and Union

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Staff Officers. Such persons shall be bound to maintain the confidentiality of the contents of the Report. Neither OPG nor the Unions may use this report for the purpose of addressing discipline matters.

- C. JWC members are required to use the information contained in the Report only for fulfilling their mandate as JWC members.
- D. Neither OPG nor any of its employees, officers, directors or agents make any representation or warranty, express or implied as to the accuracy or correctness of the attached information.

Members of management with questions regarding the above should contact Corporate Environment, Health and Safety. Unionized staff with any questions regarding the above should contact their JWC representatives.

Director, Corporate Environment, Health and Safety

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**Appendix B:
Team Investigation Process**
(This process does not apply to contractor led investigations)

Complete documentation on the agreement and process is located on the Health and Safety website.

Step	Responsibility	What Happens
1	Line Management, with support from Safety staff	(a) Determines the rating of the safety incident. (b) If the safety incident is rated as HIGH MRPH and a team is appointed to investigate: <ul style="list-style-type: none"> A TOR must be produced, including the start date, estimated length of investigation, location, and expected deliverable. The affected bargaining units must be determined and notified for participant on the team investigation:
		Refer to the “Incident Investigation – OPG Regional Pools Summary of Process Steps” for current contact information for the Power Workers’ Union (PWU) and Society of Energy Professionals (Society) contacts.
		If the safety incident is rated as High MRPH and it is determined that a team investigation is not warranted , the Business Units will discuss the decision with the Director, Corporate Environment, Health and Safety. Corporate Environment, Health and Safety will notify the bargaining units to inform them of the rationale for the decision. In addition, Line Management will notify the local JHSC.
		If the safety incident is rated as Medium or Low MRPH and a team is appointed to investigate an incident , the affected bargaining units shall be invited to participate on the investigation team, and shall select their representative. However, in this case, local union representatives may be contacted to appoint their team member
2	Union Representatives	(a) Verify the availability of potential team members for a safety incident investigation. (b) Endeavour to respond back to line management within 48 hours of the request with the name of the team member.
3	Line Management (On-going)	Identify, in advance, investigators who, for legitimate reasons, will not be available during specified times due to high priority work activities, e.g., outages. The names of these individuals must be forwarded to the appropriate PWU and Society contacts noted above for discussion as soon as they become known.
4	Joint Health and Safety Working Committee	Periodically review the operation of the networks and timeliness of the investigations.

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**Appendix C:
High Maximum Reasonable Potential for Harm –
Team Investigation Flow Chart**
(This flow chart does not apply to contractor led investigations)

