



ZERO INJURIES

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Safety Management Systems

What is a Safety Management System?

A management system comprises those elements of an organization (including its resources, systems, planning, implementation and monitoring processes, culture, structure and tasks), that taken together support Ontario Power Generation (OPG) in the achievement of OPG's objectives. These objectives may fall into one of more of the following categories:

- Effectiveness and efficiency of operations
- Reliability of internal and external reporting
- Compliance with applicable laws and regulations

A Safety Management System identifies the specific elements that are necessary to achieve objectives in the area of occupational safety.

OPG's Safety Management System Framework and OHSAS 18001

OPG's *Safety Management System* is actually a series of management systems described as follows:

- An OPG level *Safety Management System* supporting the Board of Directors and President/CEO. This system defines the overall OPG process for managing safety and the responsibilities of all parties, specifically at the corporate level. This system also describes requirements for the Businesses that cascade from the corporate *Safety Management System*.
- The Businesses (Plants, Plant Groups or Corporate Groups) each develop and maintain safety management systems to support their Business line organization in fulfilling their due diligence responsibilities. This ensures that safety is being managed down through the organization to where the worker is exposed to workplace hazards.

The safety management systems described above all conform to a number of internal and external specifications or standards. The *OPG Safety Management System* framework is consistent with OPG's policy on Management Systems and the British Standards Institution's OHSAS 18001: "Occupational Health and Safety Assessment Series (OHSAS) Management System Requirements". Both the OPG Policy on "Management Systems" and the OHSAS 18001 are based on a "Plan→Do→Check→Review" cycle of management. The OHSAS 18001 specification is consistent with the ISO 14001 model for Environmental Management Systems. Development of the *OPG Safety Management System* also considers our current

organizational culture and business processes. See Figure 1 below for a description of the elements of OPG's safety management system.

OPG has implemented these safety management systems to result in:

- compliance with applicable legislative or corporate requirements to allow demonstration of due diligence
- the implementation of minimum corporate level operational control requirements which provide the necessary assurance to the OPG Board of Directors and President/CEO that significant safety risks are being mitigated. However, the Businesses are allowed the necessary flexibility to operationalize the requirements to meet their unique business environment
- the application of sound business management processes to the management of safety, and
- continuous improvement of safety performance in OPG through a regular cycle of Planning→Doing→Checking and Reviewing, resulting in improvement initiatives that are further developed throughout the cycle.

Scope

The Corporate level *Safety Management System*

- applies to all workplaces under the control of OPG
- will address the management of all safety risks associated with OPG's businesses excluding ionizing radiation
- The scope does include the management of "industrial health" or "industrial hygiene" issues, NOT the management of "wellness" types of health issues.

While the scope of the OPG *Safety Management System* includes contractor safety, this risk area is also managed under the *OPG Contractor Management Program*

Although the *OPG Safety Management System* also includes public safety in its scope, Public Safety is managed through Business and site level programs and governance.

Current Status

An OPG [Health and Safety Policy](#) has been developed and maintained that is the foundation of the framework. An OPG safety management system program document has been developed to explain the managed system and requirements.

OPG is proud of two corporate level governing documents that further operationalize the requirements of the Health and Safety Policy. These two documents have been developed and approved jointly with our two major unions: The Power Workers' Union and The Society of Energy Professionals of Canada. They are:

- The **Work Protection Code** - establishes the conditions which, when combined with appropriate work practices, procedures and works methods will provide employees with a Safe Work Area. It is applicable to all individuals required to perform work on OPG owned property, circuits or equipment and may be used by OPG employees when working on customer-owned equipment.
- The **Corporate Safety Rules** - apply to all employees across OPG. They provide a common set of safety requirements on both general safety subjects and specific high risk areas. Their purpose is to protect employees, contractors and members of the public from occupational health and safety risks associated with our operations. They are based upon two fundamental principles: the five Safety Basics and Safe Work Planning. All OPG contractors must follow the Common Rules, and any Risk-based Rules deemed applicable to their work environment.
- In addition, a number of minimum standards for high risk areas or critical processes have been developed. Safe work planning
 - Contractor Safety
 - Incident management
 - Legal and other requirements

Using the Corporate level governance described above, the Businesses develop their own specific site procedures as required to align with the requirements.

At present all hydro-electric generating sites and Nanticoke GS have received 3rd party registrations for their safety management systems according to the OHSAS 18001 requirements. Other sites have also developed safety management systems consistent with OHSAS 18001.

For questions or comments related to the content of the Safety Management Site, please email [Cathy Catton](#).

Figure 1
Ontario Power Generation Safety Management System
OHSAS 18001 Based

