

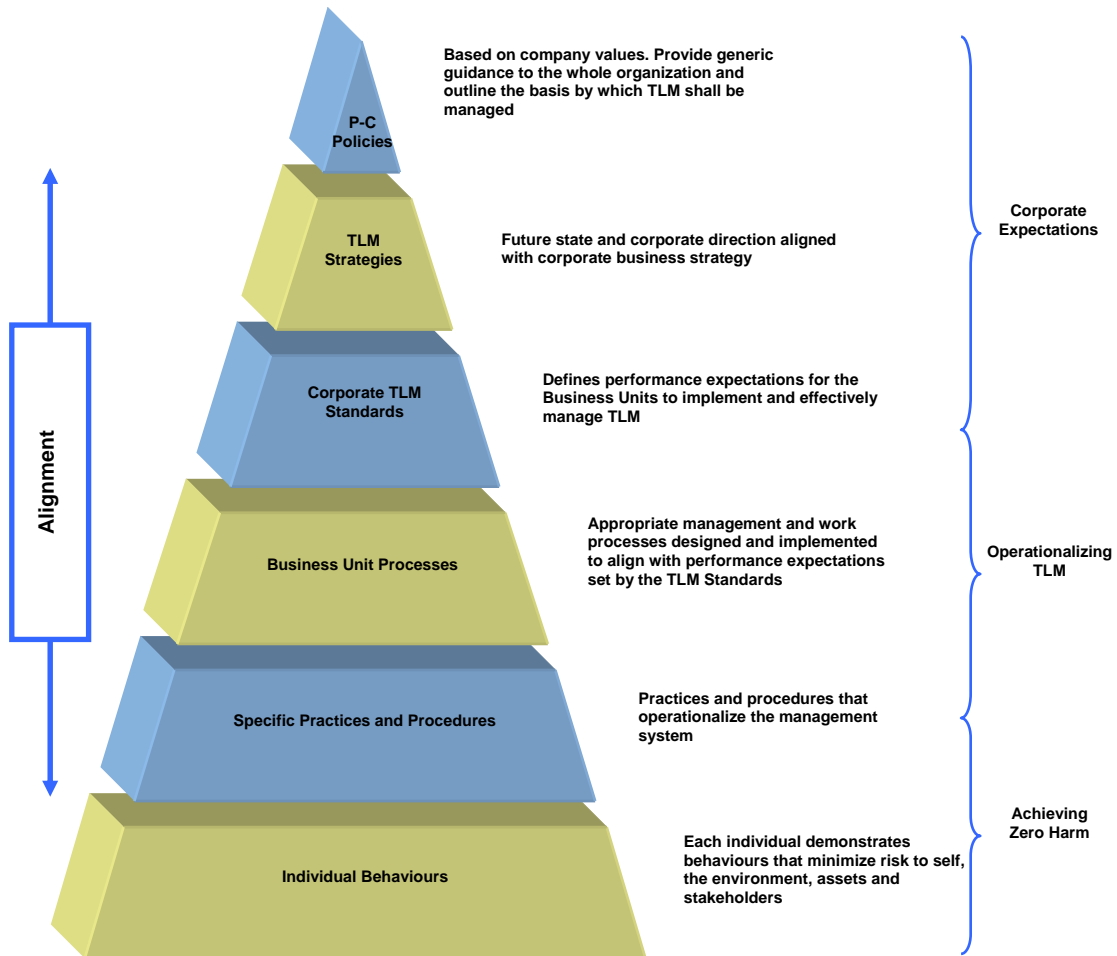


# TOTAL LOSS MANAGEMENT (TLM)

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Total Loss Management is a systematic approach to the management of loss, integrating reliability and quality with the reduction of risk, to people, the environment, assets and production.

The TLM Framework is a model that demonstrates the integrated management functions that are required to develop the corporate culture desired by Petro-Canada. It is a culture that believes in the ultimate goal of Zero-Harm to employees, others at our facilities, the public, the natural environment, company assets and property.



The Petro-Canada version of TLM is a risk-based process. While our ultimate goal is Zero-Harm, our route to achieving this goal is through the progressive reduction of harm based on the highest risks receiving the greatest attention. Business success requires a continual assessment of risks and making of choices. The TLM Standards are intended to help operating business units establish management processes that will help our employees at all levels of the organization make the right choices at the right times, based on the inherent risks to its operations.

The Corporate TLM Standards provide guidance and define general expectations for the whole corporation, outlining the basis for which TLM will be managed. Each of the ten Elements in the Standards identifies the management processes that the organizational units are expected to develop. The organizational units determine the risks to their business related to each sub-element. This establishes the priorities for TLM implementation and allows the business to set its own compliance targets based on the risks, the potential benefits afforded by the planned improvements and how well the processes can be integrated into the rest of its functions. This is what we mean by "risk-based". The business unit determines what is important to its future, based on sound loss management principles and knowledge of its own history and future directions. The concept of minimizing loss is aligned with and supportive of our corporate values.

## **CORPORATE TLM STANDARDS**

Each Organizational Unit within Petro-Canada is responsible for managing the impact of its activities and products on people, the environment, property and corporate assets. To guide organizational units through this process, the company has developed TLM standards in 10 elements or subject categories.

The 10 Elements are:

- **Element 1: Leadership** identifies what leaders must do to provide a compelling sense of direction and purpose by driving alignment to reinforce focus and commitment to, and ensure a disciplined execution of, the TLM Standards.
- **Element 2: Health & Safety** identifies the health and safety management processes that focus on employee health, safety and wellness, with a goal of Zero-Harm. The employee's health and safety is at the centre of successive layers of work environment considerations, business unit processes and corporate processes. The approach to Zero-Harm and employee wellness will drive risks to as low as reasonably practicable.
- **Element 3: Physical Asset System Integrity & Reliability** ensures the integrity, reliability and safety of existing and new assets through their whole life cycle, recognizing that different management controls are necessary during each of the three cycles – build, operate and decommission.
- **Element 4: Contractor Management** follows the key steps inherent in the contracting process and scales the process to the significance and complexity (risk) of the work. This element directs leaders to select and manage TLM with contractors who are performing services or providing equipment/materials to ensure that they are aware of and follow TLM practices, or have equivalent programs of their own which are aligned with Petro-Canada's TLM Standards and practices.
- **Element 5: Environmental Management Systems** identifies management accountabilities necessary to identify, assess and

monitor impact of operations on the environment, reduce the risk of adverse impact on the environment and apply prevention of pollution and continual improvement practices.

- **Element 6: Employee Practices, Capability & Development** provides the framework and guidance to all employees so that Petro-Canada has the human resource (people) capabilities to consistently and predictably deliver Best in Class TLM performance.
- **Element 7: Audits & Inspections** provides guidance in developing or managing inspections and audits from which information can be gathered on business exposures, system integrity, improvement opportunities, so that the requirements imposed by external organizations and company management, including TLM requirements, can be met.
- **Element 8: Stakeholder Relations** identifies the management accountabilities necessary to promote effective relations with neighboring communities, landowners, indigenous or aboriginal peoples, regulators, governments, non-governmental organizations, other industries, oil and gas operators, business partners, and other stakeholders who have an interest in Petro-Canada operations or development projects. The focus is on all phases of our operations and on proactive dialogue to ensure a principled relationship with relevant stakeholders, consistent with Petro-Canada's Principles for Investment and Operations.
- **Element 9: Security & Emergency Preparedness** involves the development of three management tools for organizational units to identify security risks and develop plans to mitigate their occurrence; to identify specific undesirable scenarios that could degrade into an emergency, to develop in advance responses to those situations, and to identify the steps an organizational unit would follow in the early stages of an emergency escalating through the three tiers of response. This element also provides for the protection of individual human rights when engaging the use of private or public security forces.
- **Element 10: Event Management** establishes a common standard for the management of events and hazards. This standard identifies requirements for the reporting, notification and investigation of events and hazards, the management of remedial and corrective actions and the analysis of information about Petro-Canada's event performance.