

Incorporating PSM into TSSA Regulatory Framework

Jorge Larez, Risk Management, TSSA



PARTNERING
FOR A
SAFE ONTARIO

TSSA Overview

- Established as a not-for-profit, self-funded organization in 1997 to deliver safety services on behalf of the Government of Ontario
- Approximately 400 employees
- Governed by 13-member board
- TSSA reports to the Ministry of Government and Consumer Services (MGCS), which oversees TSSA's delivery of safety services and organizational performance and retains authority for the *Technical Standards and Safety Act, 2000*.

Overview of Regulated Industries

- **Elevating & Amusement Devices, Passenger Ropeways (Ski Lifts):**
TSSA regulates elevating & amusement devices and ski lifts in Ontario.
- **Fuels:**
Fuels Safety Program regulates the transportation, storage, handling and use of *fuels in Ontario (*Fuels include natural gas; propane; butane; hydrogen; digester gas; landfill gas; fuel oil; gasoline; diesel)
- **Boilers & Pressure Vessels (BPV):**
BPV Safety Program ensures the safe design, construction, maintenance, use, operation and repair of all pressure-retaining components in Ontario
- **Operating Engineers (OE):**
 - The OE Safety Program registers, inspects and regulates the safety of plants in Ontario.
 - TSSA is also responsible for the examination and certification of the professionals who manage, operate and maintain plants and the equipment within.

Background

- The Government of Ontario amended the Technical Standards and Safety Act, 2000, to provide the Minister of Government and Consumer Services (The Minister) authority to approve alternate rules for the Operating Engineers' regulation.
- These alternate rules exist in parallel to the current regulation.
- The new rules adopt a risk-based regulatory framework recommended by a panel of industry experts.

What are alternate rules

- Alternate rules exist in parallel to the regulation and offer different options for achieving compliance
- A person or a business may choose to follow alternate rules, but only if permitted by the regulator
- Pursuing alternate rules arrangement could increase or decrease plant staffing
- The acceptance to follow alternate rules can be revoked by the regulator

Understanding Path 1 & Path 2

- TSSA uses an estimation of a plant's safety risk to determine appropriate staffing levels
- Under the regulation, a plant's safety risk is estimated by using a plant's total power rating as the only variable.
- Alternate rules recognize the complexity of modern plants and calculates safety risks differently:
 - **Path 1** – TSSA's methodology considers multiple variables (incl. total power rating) to measure and estimate plant's safety risk
 - **Path 2** – TSSA assesses professional engineer's risk management proposal (based on PSM CSA-Z767-17) that accounts for all known variables to estimate a plant's safety risk

Background

- Under the new rules, an industrial facility may choose one of two alternate regulatory paths:
 - **Path 1 category-based approach**, where operator staffing requirements for industrial facilities are determined based on a rating system that considers the safety risk posed plant operations
 - **Path 2 performance-based approach**, where regulated industrial facilities develop and implement their own site-specific Risk and Safety Management Industrial facilities (RSMP). In this approach, the operating engineer staffing would be addressed in a manner specific to an industrial facility and the corresponding hazard scenario. The RSMP would not only reflect the count and category of staffing, but also characteristics (such as specialized training and expertise) in order to ensure the risk to both workers and the public is kept within the prescribed individual risk tolerances and is brought to as low as reasonably practicable.

The new rules will provide businesses with flexibility and choice to either utilize the alternate rules or to continue adhering to requirements in the current regulation.

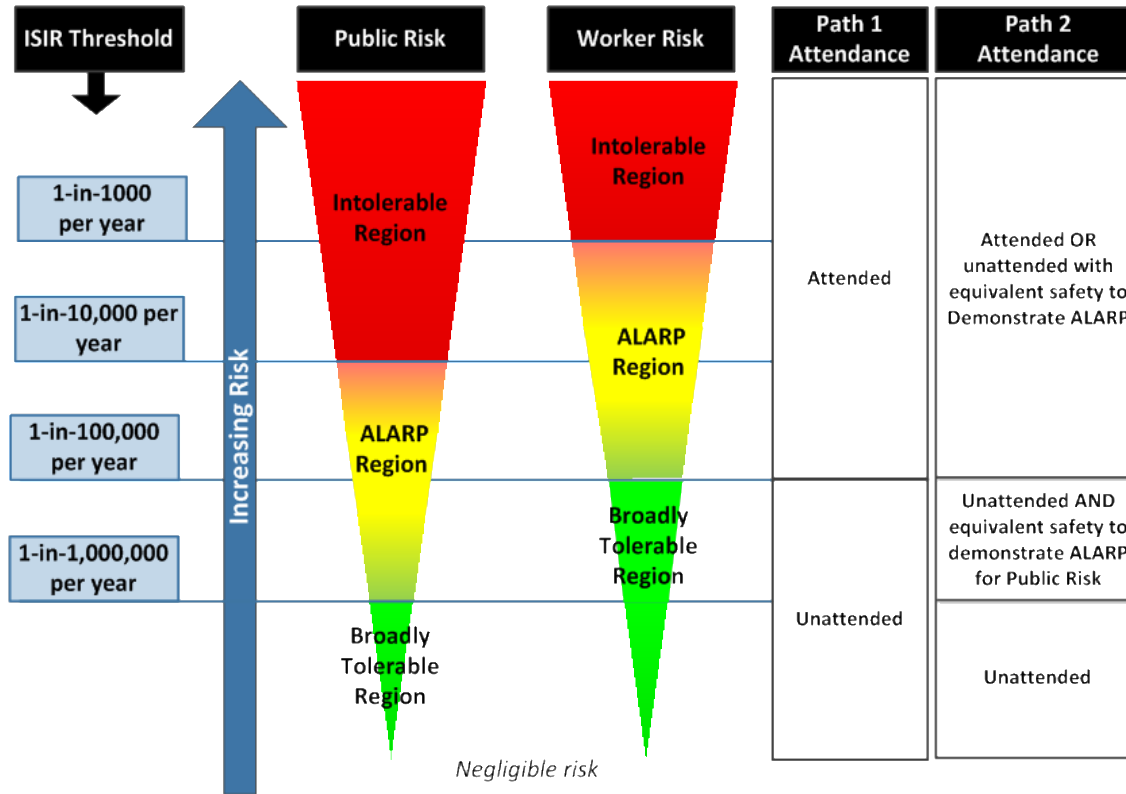
P1 & P2 Authorizations

- P1 & P2 authorizations may have conditions. During the review stage, TSSA can impose conditions or restrictions based on our assessment.
- For P2 plants, the Z767 also requires plant users to periodically review and audit their RSMPs
 - TSSA can request evidence of these audits during TSSA inspections.
- If TSSA discovers conditions are not being met, TSSA can suspend or revoke P1 and P2 status of a plant and revert the plant back to original requirements in the regulation
 - This possibility serves as a major deterrent for alternate rules plants from disregarding safety along with costs associated with P1 and P2 applications

P1 & P2 Plant Oversight

- OE plants under all three paths (default, P1 & P2) will be placed under risk-based scheduling for TSSA inspections
- For P2 plants, inspection checklists and compliance standards will be tailored to the site-specific requirements of the RSMP
- In addition, P2 plants may be subject to additional management system audits by TSSA (**under consideration**)

Path 2-ALARP-Risk Acceptability Criteria



Thank you
Questions?