



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Regulator's Perspective on Rules of Conduct for TSOs

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Vice President, Technical Support Branch
Canadian Nuclear Safety Commission

International Conference on Challenges Faced by Technical
and Scientific Support Organizations (TSO) in Enhancing
Nuclear Safety and Security,
26 October 2010,
Tokyo, Japan



Outline



- Canadian Nuclear Safety Commission (CNSC)
- The TSO for the CNSC
- Roles and responsibilities
- Challenges in the Regulator-TSO Relationship
- Challenges associated with internal TSOs
- Rules of engagement within the CNSC
- Risk Informed Decision Making (RIDM) Process
- Concluding remarks

Canadian Nuclear Safety Commission



Established May 2000,
under the *Nuclear Safety
and Control Act*

Replaced the AECB,
established in 1946,
Atomic Energy Control Act

***Canada's Independent
Nuclear Regulator -
64 Years Of Experience***



Our Mission Is Clear



Protect the **health, safety** and **security** of persons and the **environment**; and to implement Canada's **international commitments** on the peaceful use of nuclear energy

Canada's Nuclear Watchdog

CNSC Regulates All Nuclear-Related Facilities and Activities

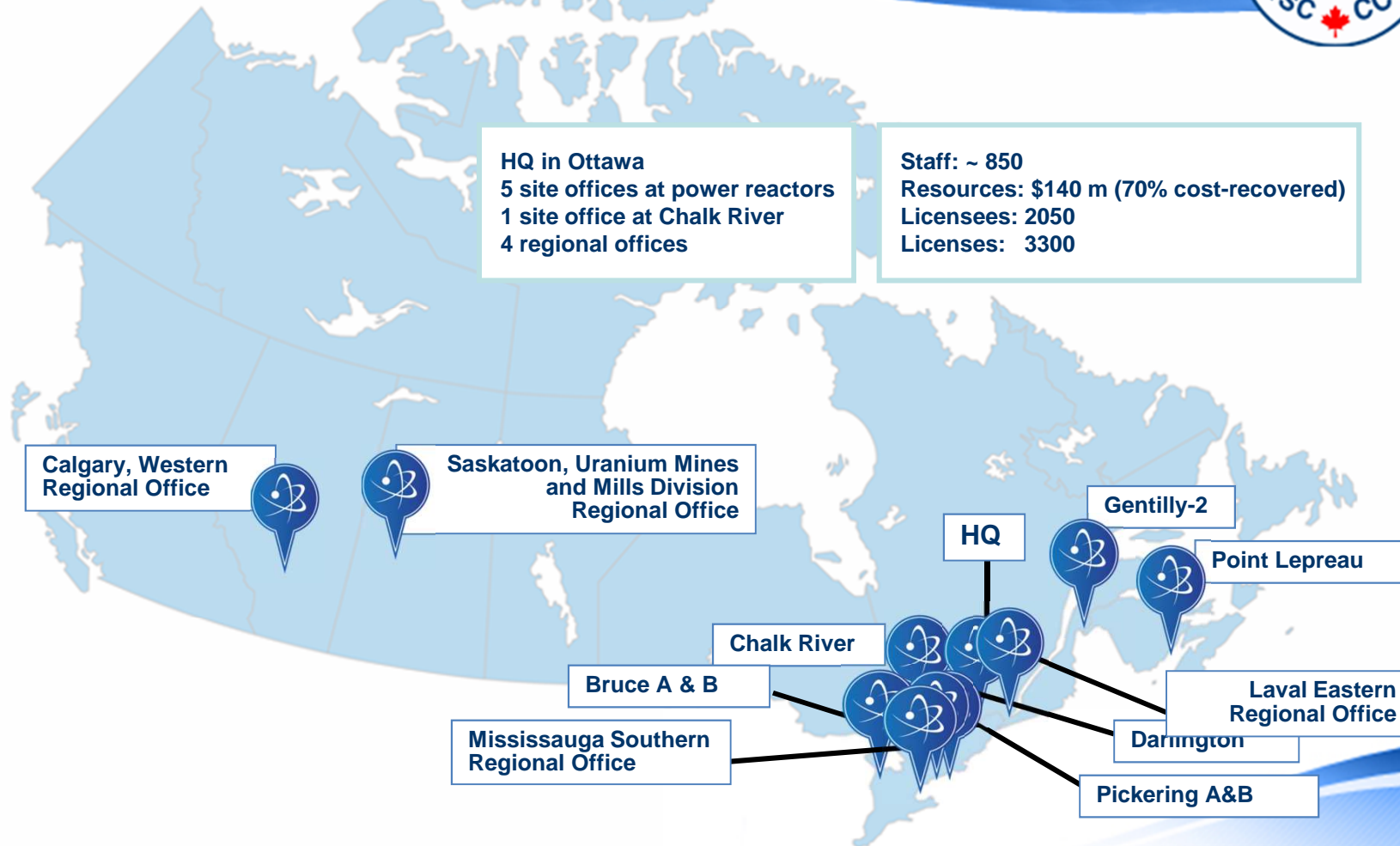


- Uranium mines and mills
- Uranium fuel fabricators and processing
- Nuclear power plants
- Waste management facilities
- Nuclear substance processing
- Industrial and medical applications
- Nuclear research and educational
- Export/import control

...From Cradle To Grave



CNSC Staff Located Across Canada



Independent Commission



- Quasi-judicial administrative tribunal
- Commission members are independent
- Commission hearings are public and Webcast
- Supported by a Secretariat and independent legal services



Transparent Decision-Making

CNSC Commission Members



Dr. Michael Binder
President and Chief Executive Officer, CNSC



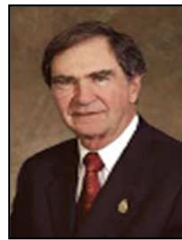
Mr. Alan R. Graham
Businessman and former New Brunswick Minister of Natural Resources and Energy
Rexton, New Brunswick



Ms. Jocelyne Beaudet
(Temporary Member)
Cultural Anthropologist and environment and public participation consultant
Lunenburg, Nova Scotia



Dr. Ronald J. Barriault
Practising physician and member of the Canadian Medical Association, the College of Family Physicians of Canada and the New Brunswick Medical Society
Charlo, New Brunswick



Mr. André Harvey
Former President, Bureau d'audiences publiques sur l'environnement (BAPE)
Québec, Québec



Mr. Ken Pereira
(Temporary Member)
Professional Engineer and former Vice-President, Operations (CNSC)
Ottawa, Ontario

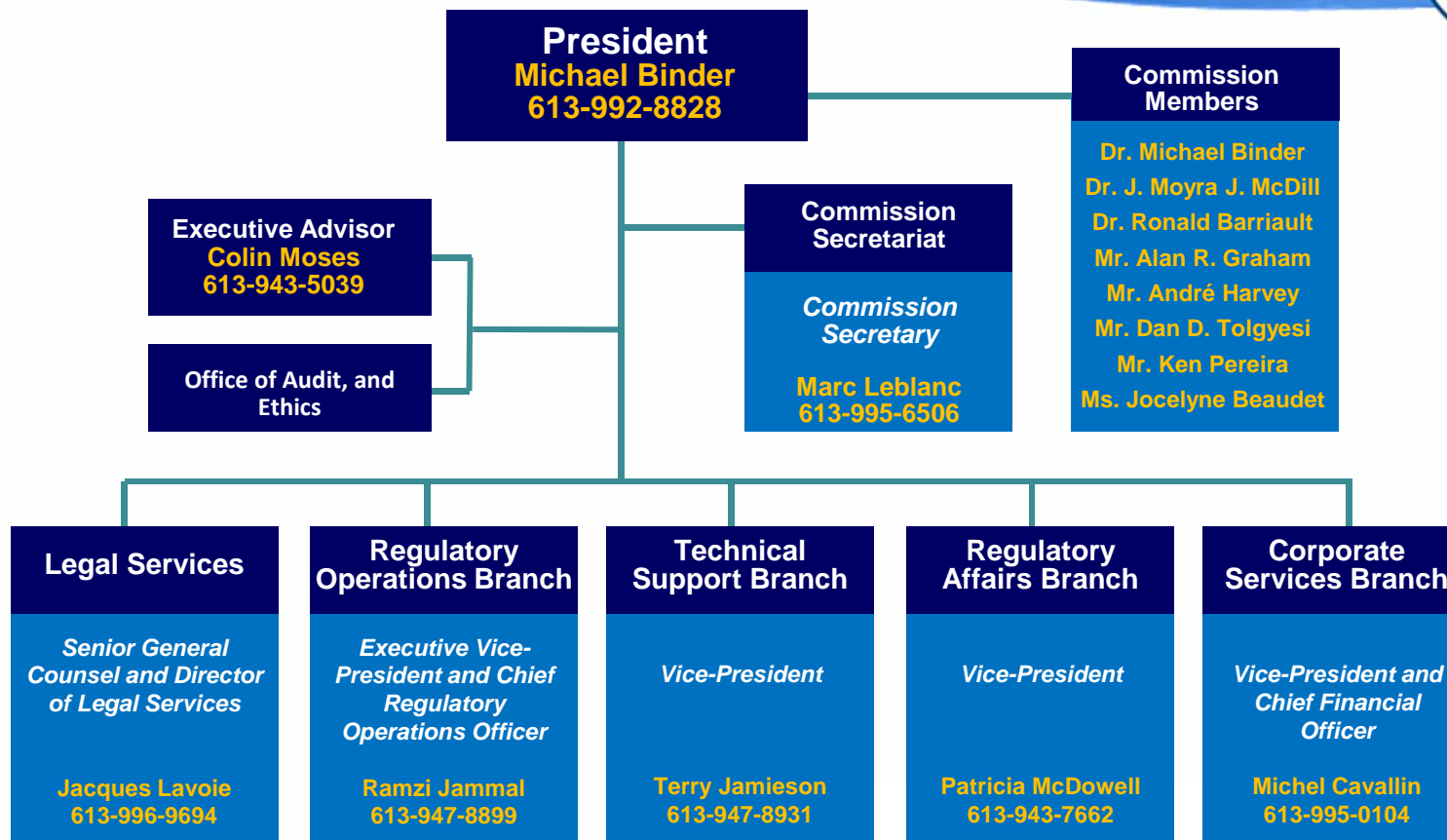


Dr. J. Moyra J. McDill
Professor, Department of Mechanical and Aerospace Engineering, Carleton University
Ottawa, Ontario

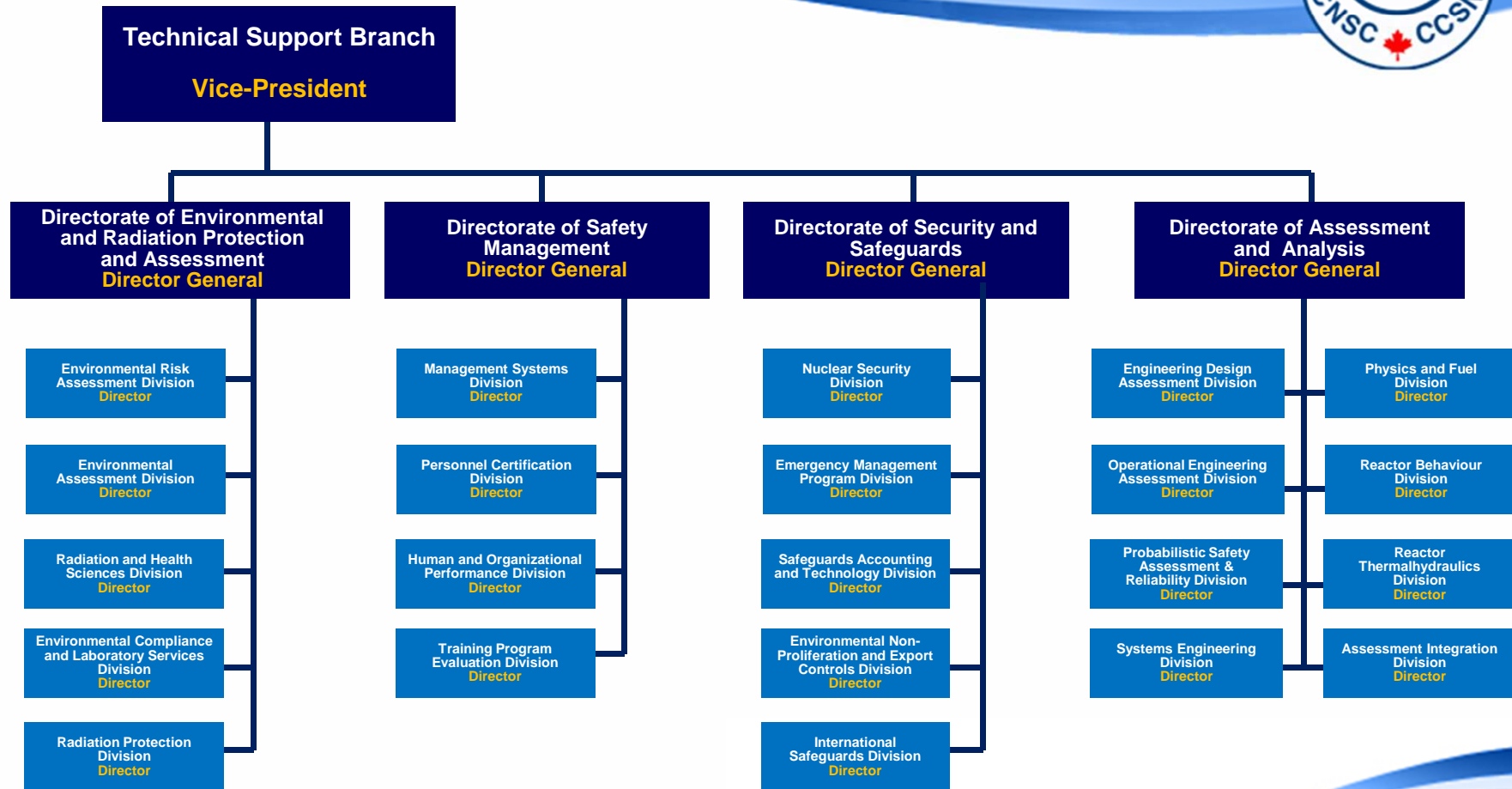


Mr. Dan D. Tolgyesi
President, Quebec Mining Association
Québec, Québec

Executive Structure



The Canadian TSO (1)



The Canadian TSO (2)



- Full complement of engineering, scientific and “policy” expertise
- Supported by a state of the art radio-chemical laboratory
- Strong links with other national and international agencies and resources

Roles and Responsibilities



- Broadly speaking, roles of the operating branches are:
 - Regulatory Operations Branch: manages regulatory activities as well as licensing and compliance decision-making
 - Technical Support Branch: provides specialist advice for regulatory programs, reviews licensee submissions, participates in inspections, and helps to develop relevant regulatory framework documents
- This is where some of the challenges manifest themselves

Challenges: The Regulator - TSO Relationship



- Ethics
- Conflicts of Interest
- Openness
- Transparency
- Independence
- Public information and outreach
- Balancing safety and availability
- Balancing risk and benefits
- Developing expertise to match current and future challenges

All of these working well with the CNSC's TSO model

Challenges: Associated with Internal TSOs (1)



- Internal TSOs present new challenges for the regulatory body, as well as increasing the challenges associated with the balances of safety/availability, safety/security and risk/benefit

Challenges: Associated with Internal TSOs (2)



- Suggestion S3 from June 2009 IRRS mission:
“Staff from the Regulatory Operations Branch and Technical Support Branch branches of CNSC may wish to review how they could work together in a more harmonized manner to ensure that security measures do not compromise safety and vice versa and to ensure continued compliance with security requirements as reviewed.”
- The CNSC Management Response:
“Regulatory Operations Branch and Technical Support Branch will conduct a review of how they can work together in a more harmonized manner. This will examine how they work together for assessments and compliance inspections that impact both safety and security, and overall communication processes to ensure that security staff and licensing/compliance staff do not work in isolation of each other. The conclusion of the review will be the formalization of the respective roles and responsibilities within the CNSC (first phase: NPPs) and the development of a generic CNSC communications protocol with licensees that addresses both safety and security (an existing Harmonized Plan initiative)”.

Rules of Engagement: Key Messages



- Working in a more harmonized manner
- Integration of safety and security
- Better communications
- Clearer definition of roles and responsibilities

Rules of Engagement: Key Messages



- Clearer definition of roles and responsibilities AND better communications:
 - ➔ Working in a more harmonized manner
 - ➔ Integration of safety and security

Rules of Engagement: Clearer Definition of Roles and Responsibilities



ROB staff are responsible and accountable for:

- requesting assessments/recommendations
- establishing the scope/depth of the assessments
- integration of recommendations into the final regulatory decision
- making final regulatory decisions/recommendations

TSB staff are responsible and accountable for:

- conducting technical assessments that are based on the best available science, technical knowledge and analytical methods
- consulting with ROB on findings prior to finalizing assessments
- providing recommendations for regulatory actions as appropriate
- regulatory framework

Rules of Engagement: Better Communications



Maintaining regular engagement and open communication between the Regulatory Operations Branch and Technical Support Branch, in order to:

- Set appropriate relative priority of technical and regulatory issues
- Develop understanding of safety implications of such issues
- Maintain adequate regulatory programs for nuclear facilities
- Make justified and defensible regulatory decisions
- Establish, monitor and respect scope, depth and schedule
- Ensure issues identified and resolved prior to drafting regulatory recommendations

Rules of Engagement: Working in a More Harmonized Manner



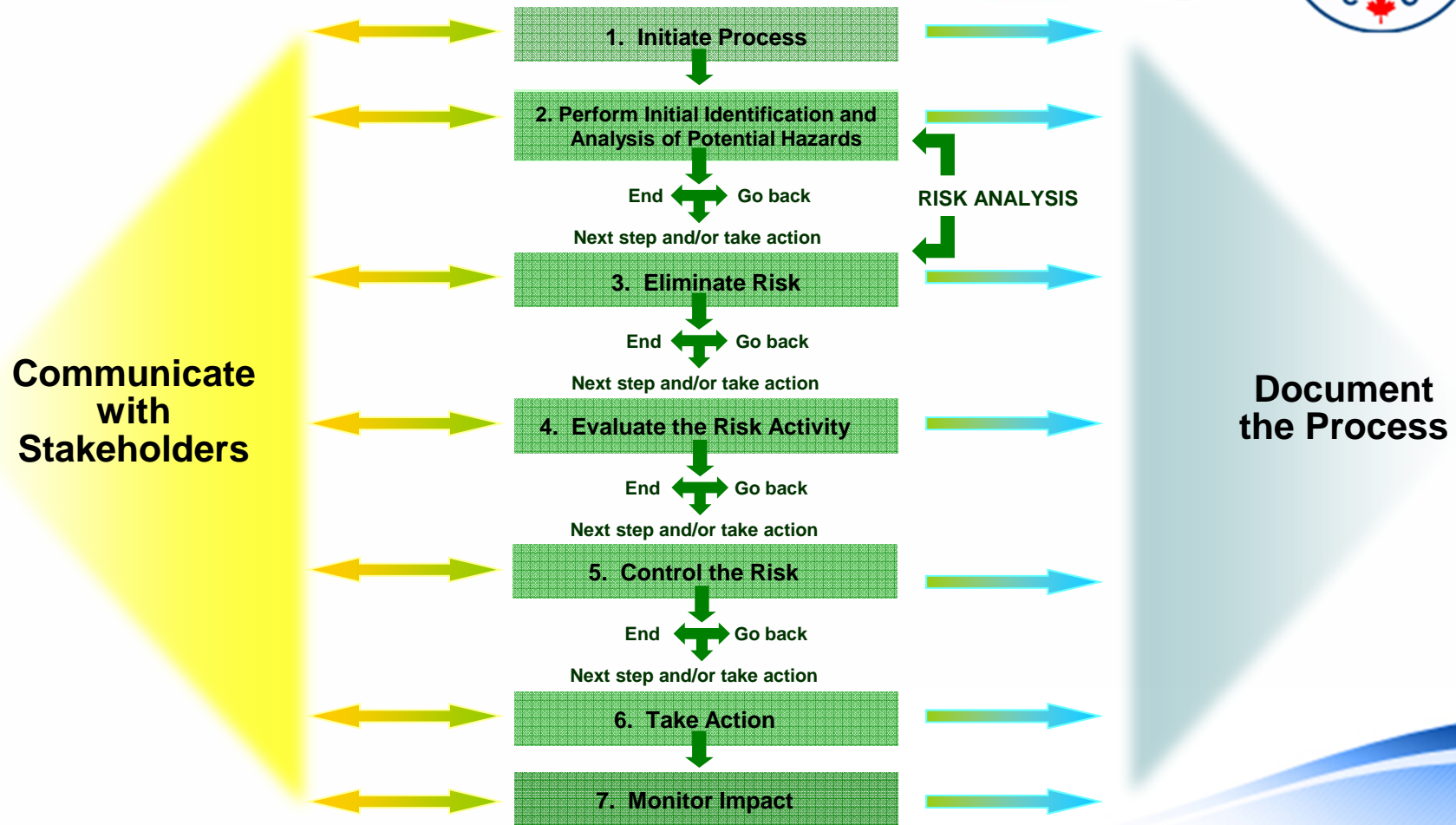
- An element of continuous improvement
 - IRRS mission confirmed no major problems
- Director-led teams
- Formal process for dispute resolution
- Direct communications between licensing and technical specialists
- ROB/TSB management meetings
- TSB staff write first draft of regulatory recommendations

Rules of Engagement: Integration of Safety and Security



- TSB has established the required in-house expertise
- Regulatory documents reflect need to balance
- Assessments/inspections examined for both safety and security
- Licensee role and responsibilities
- Culture shift

Risk Informed Decision Making



Concluding Remarks

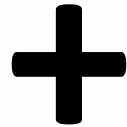


- Support to the regulator can work with a number of TSO models
- Regardless of the model, some common challenges arise regarding the interface
- These challenges are manageable provided:
 - There is a clear understanding of roles and responsibilities
 - There are processes and procedures to resolve disagreements and to put risk into context
- Above all, clear and respectful communications are required

CNSC Ensures Nuclear Safety...



Core (licensing and compliance)



- **Commitment to ongoing improvements**
- **Clarity of requirements**
- **Capacity for action**
- **Communications**



Still A Lot Of Misconceptions



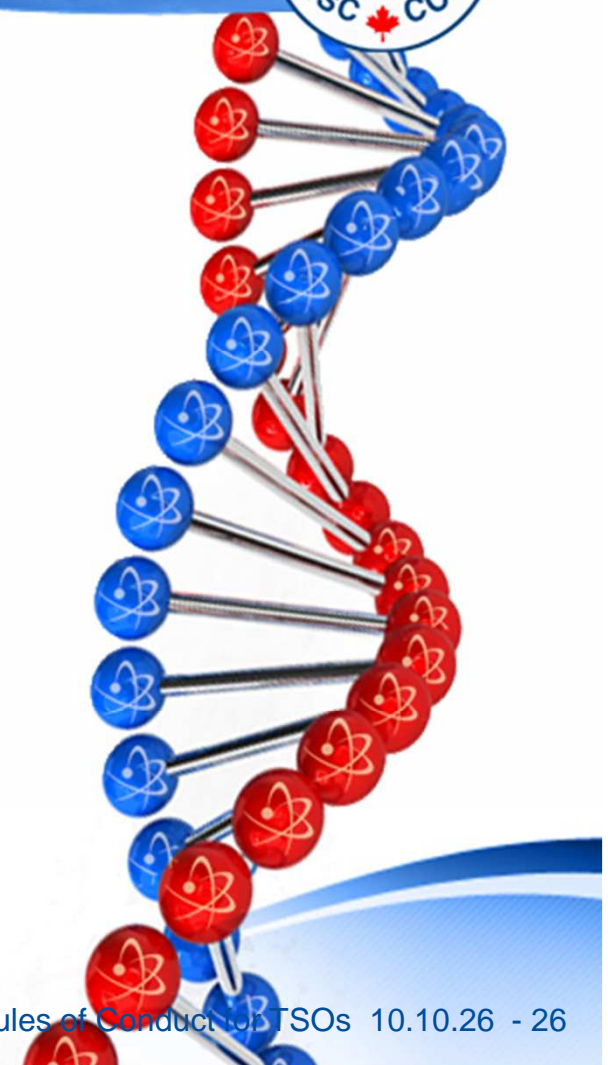
- **Nuclear reactors and uranium mining are safe**
 - Most heavily regulated in Canada
- **Nuclear industry is not a security risk**
 - Sites heavily guarded
 - Nuclear substances tightly controlled
- **Environment is protected**
 - Stringent licence conditions and proactive disclosure
- **Nuclear waste is managed or contained**
 - Long-term solution underway

Communications Are Important!

CNSC will not compromise safety...



***...It's In Our
DNA!***





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nuclearsafety.gc.ca

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