



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

# Financial Guarantee Program for Nuclear Substances, Prescribed Equipment and Class II Nuclear Facility Licences

## CMD 14-M44.A

Commission Public Meeting

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Directorate of Nuclear Substance Regulation

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Canada

# Content

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- A new approach for financial guarantee

# What is a financial guarantee?

- Commitment for potential future remediation
- Commission has authority to impose a financial guarantee
- Financial guarantees **already in place** for:
  - Nuclear reactors
  - Uranium mines & mills
  - Major nuclear facilities

Financial guarantees avoid transferring a licensee's obligation to the Crown.

# Financial Guarantees for nuclear substances and prescribed equipment

- Why now?
  - Enviropac focused attention on liability to Crown as a result of costs associated with clean up
  - Commission direction in December 2010 to consider financial guarantees for all licensees

# Financial guarantees - Outcome

Safe termination of all licensed activities, in case of licensee default, includes all actions associated with:

- Disposal of all sealed sources
- Disposal of any radiation devices
- Disposal of any unsealed nuclear substances
- Remediation of areas where unsealed nuclear substances were used

A financial guarantee does not change the licensee's obligation for the safe termination of licensed activities

# Development of an initial model

- Discussion paper DIS-11-01 *Implementation of Financial Guarantees for Licensees*
- Formula based, robust and flexible
  - \$3,000 for each radiation device or sealed source
  - \$4,000 for each room or area using unsealed source
  - \$10,000 CNSC administrative fee
- Recognized different financial risk of a private enterprise vs a public institution



# Outreach on DIS-11-01

- Published in March 2011
- CNSC staff conducted extensive outreach
  - 21 presentations across Canada
  - 4 webinars
- Comment period closed November 30, 2011
- 87 comments received

# Outreach feedback

- Licensees understood their regulatory obligations
- Did not support the proposed approach
- Raised concerns over program fundamentals
  - Large amount of money being tied up
  - Lack of history of occurrence
  - Unreasonable impact on business
  - Formula basis did not consider low-risk situations



# Changes made to original approach

- Re-examination of cost factors used
  - Sealed sources <50 MBq **now exempt**
  - Nuclear substances with half life <72 hrs **now exempt**
  - CNSC administrative fee (\$10K) **now removed**
- Additions
  - Self-shielded irradiators - \$90,000 for cost of disposal
- All other factors remain unchanged

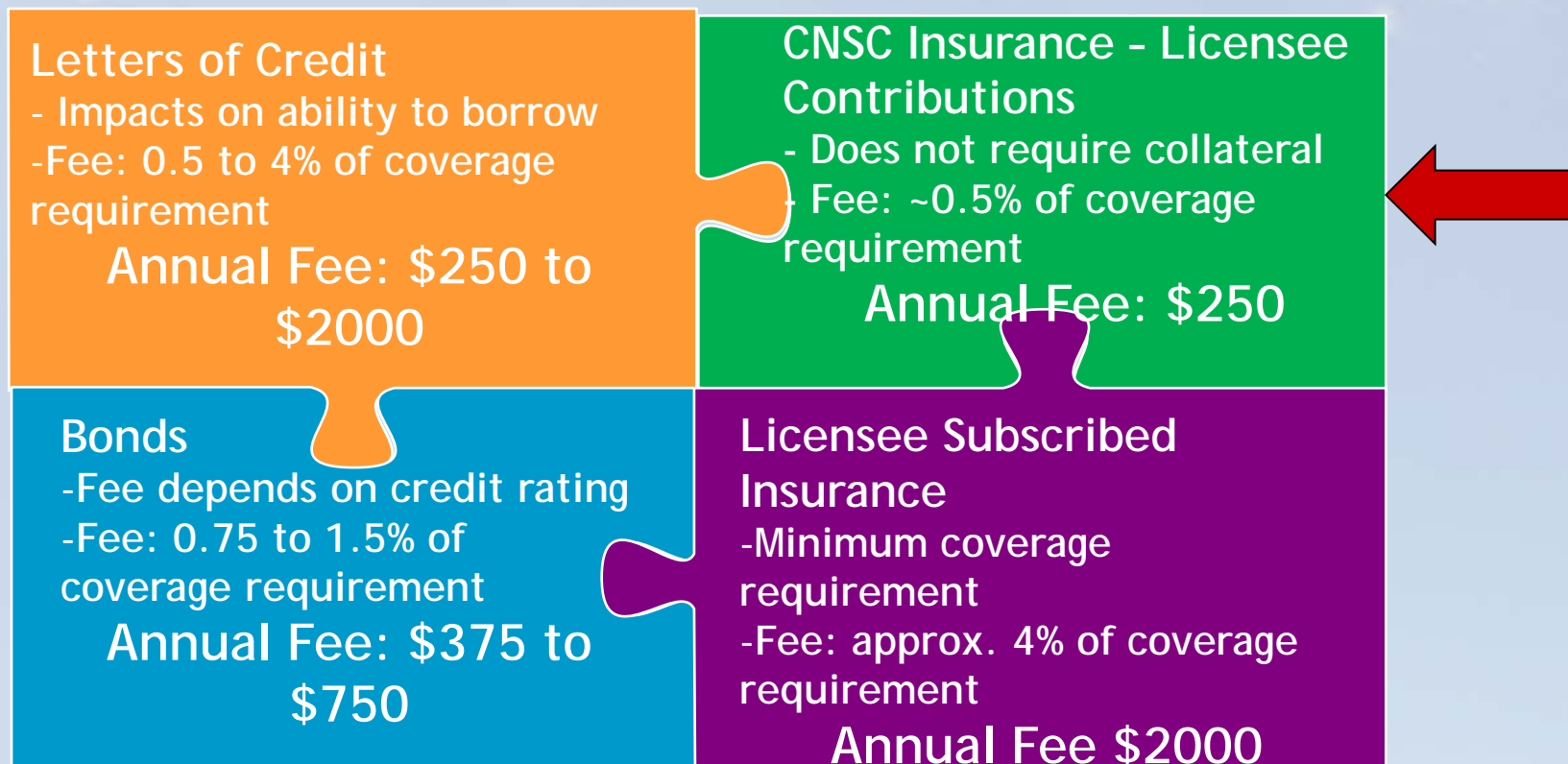
# Consideration of alternatives

- Provide sufficient funding for expected liabilities
- Respect CNSC principles of certainty, liquidity, adequacy & continuity
- Objectives
  - Provide coverage for possible liability
  - Not require sequestering of funds
  - Minimize financial impact on licensees

CNSC Staff worked with industry groups to consider alternatives

# Alternatives

Assuming a licensee with a liability of \$50,000 :



# CNSC Insurance Approach for financial guarantee

- CNSC is solely the insured party
- Coverage for costs incurred by CNSC to provide safe termination of licensed activities in case of licensee default
- Covered licensee default
  - Financial impairment
  - CNSC regulatory action

Cost of CNSC insurance premium will be paid by fee paying licensees.

# Insurance Policy terms

<u>Maximum coverage</u>	
Per claim or total of claims	\$1,000,000 (over 24 month period)
CNSC interim storage if required pending court order	\$250,000 (in addition to \$1M above)
Premium - Paid by licensees (based on estimated total licensee liability of ~\$54M)	~\$54M X 0.4437% = ~\$240,000 per year (0.4437% is the premium coverage factor)
Deductible	Nil
Inclusions for safe termination	Packaging, transfer, storage, processing, transport, decontamination and disposal

# Original approach using DIS-11-01

Licensee with 4 rooms, 3 devices and 5 sealed sources

4 rooms @ \$4,000 =	\$16,000
+ 3 devices @ \$3,000 =	\$9,000
+ 5 sealed sources @ \$3,000 =	\$15,000
+ CNSC administrative fee =	\$10,000
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= Total Liability of	\$50,000

Annual cost of a financial surety to cover this liability is about \$750 + collateral cost



# CNSC Insurance Program

## (Annual premium contribution cost)

Licensee with 4 room, 3 devices and 5 sealed sources

4 rooms @ \$4,000 =	\$16,000
+ 3 devices @ \$3,000 =	\$9,000
+ 5 sealed sources @ \$3,000 =	\$15,000
<del>+ CNSC administrative fee =</del>	<del>\$10,000</del>
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= Total Liability of	\$40,000

Annual premium contribution cost to licensee  
= \$40,000 x 0.4437% = \$177.48  
and no impact on business assets

# Additional Examples

- Licensee with 8 labs, 3 labs exclusively use nuclear substances with half-life < 3 days
  - 5 labs @ \$4,000 = \$20,000
  - 3 labs @ \$0 due to short half-life

Total liability is \$20,000

- Annual premium contribution cost to licensee
  - $\$20,000 \times 0.4437\% = \$88.74$

# Examples (cont'd)

Licensee with 12 irradiators @ \$90,000 each

Total liability is \$1,080,000

- Annual premium contribution cost to licensee
  - $\$1,080,000 \times 0.4437\% = \$4,791.96$

However the liability exceeds \$1M cap and as a result the licensee will pay the maximum annual premium contribution of \$4,437.

# Other considerations

- Licensees that do not adopt this approach will be required to set up a financial guarantee acceptable to the Commission
- Public institutions will be required to recognize their total liability required for safe termination of licensed activities

# Conclusions

- The Commission has the authority under the *Nuclear Safety and Control Act* to impose a financial guarantee
- The new approach proposed by CNSC staff meets CNSC requirements for financial guarantees and addresses industry concerns

# Conclusions (cont'd)

- New approach is based on insurance where CNSC is sole insured party with premium paid by fee-paying licensees
- New approach will provide licensees with low cost means to meet financial guarantee obligations that are acceptable to the Commission



# Future steps

- Licence condition will be added to all licences to require a financial guarantee
- CNSC staff will:
  - Provide licensees with information regarding insurance approach, as part of required opportunity to be heard
  - Solicit stakeholder feedback by way of written submission
  - Disposition written feedback from stakeholders on this approach and provide to the Commission for its consideration