



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire



# *IMPLEMENTING THE STATE-LEVEL APPROACH: Moving Forward*

A Presentation to the INMM Annual Meeting  
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Tucson, Arizona, July, 2009

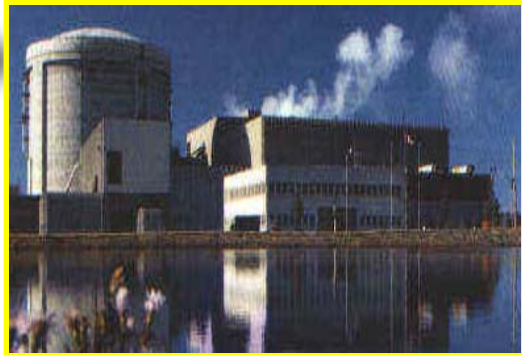
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# OUTLINE



- The State-level concept
- The benefits of State-level integrated safeguards
- Optimising State-level integrated safeguards approaches
- Some considerations relevant to Canada
- Concluding remarks

# *The State-level Concept*



## **A Change in Perspective**

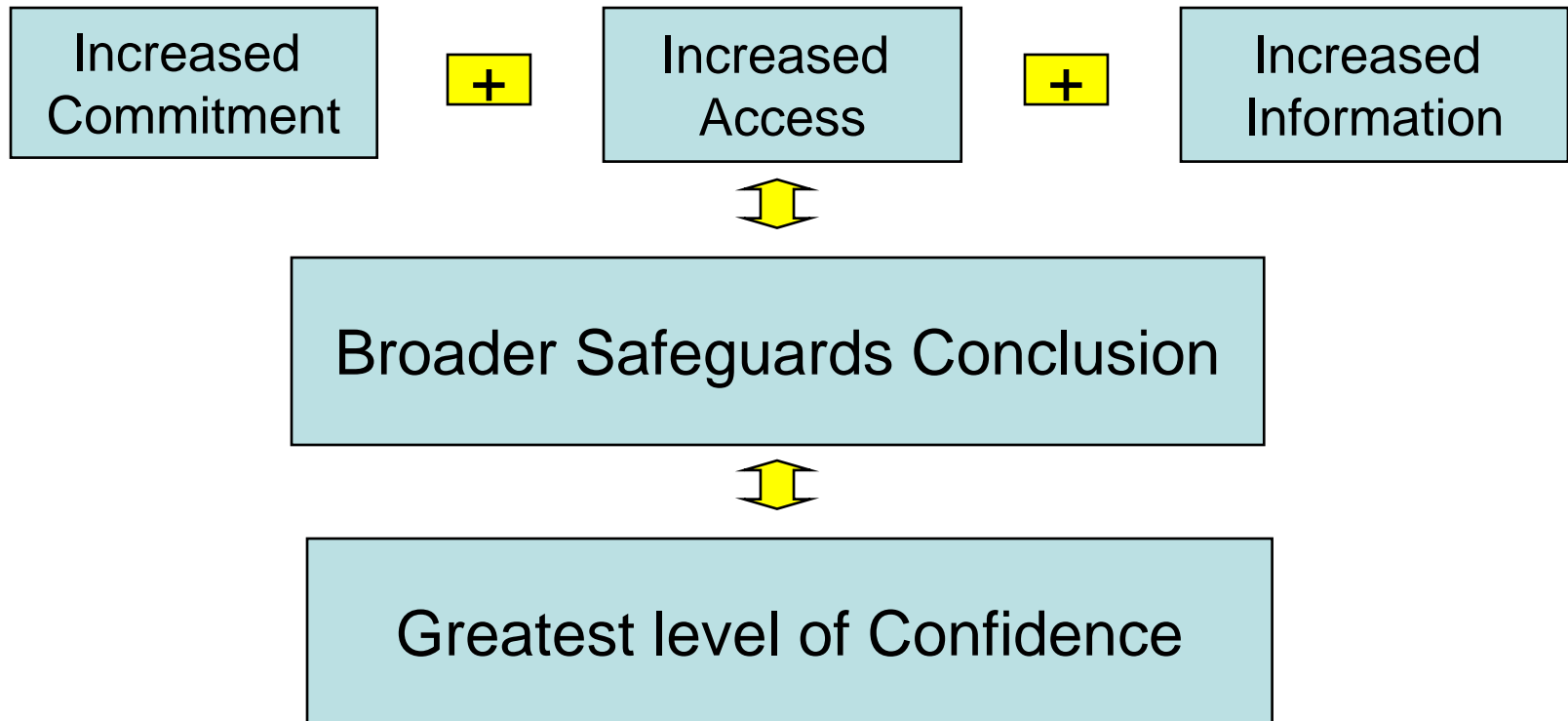




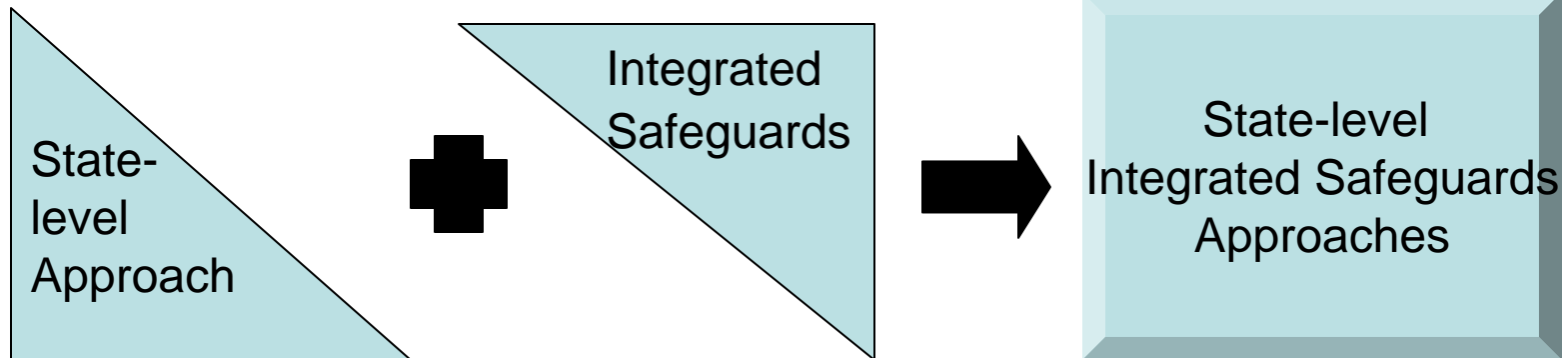
# *The State-level Approach*



## **Optimisation: Comprehensive Safeguards Agreement + Additional Protocol**



# *State-level Integrated Safeguards*





## **Primary Characteristics**

Information Driven

Differentiated

More Risk-Informed

High Degree of  
Unpredictability



## **Challenges to Optimisation**

- Striking the right balance between quantitative and qualitative elements
- Strengthening capabilities regarding undeclared nuclear material and activities
- Ensuring consistency and transparency in processes and in application
- Ensuring appropriate reporting

# *Optimising State-level IS Approaches*



## **The Quantitative/Qualitative Mix**

- Re-examine nature and scope of annual verification effort
- Greater use of non-technical State-level considerations
- Increase range of options under IS facility level and State-level approaches

# *Optimising State-level IS Approaches*



## **Strengthening Capabilities**

- Need robust toolbox
- Targeted R&D





## **Enhancing Transparency**

- Differentiation requires clear, consistent and defensible processes
- Common understanding of the safeguards objectives and the various means to attain them



## **Ensuring Appropriate Reporting**

- By the Secretariat
- By States

# The Canadian Case



## Setting the Scene

- Natural uranium fuel cycle
- State-level IS approach approved in Dec. 2005
- Sector by Sector
- SNRIs, UIs, Remote monitoring (SOH)
- Reduction of PDIs (1100 to 750)





## **Moving Forward**

- Concentrate on areas of the most strategic significance
- Use UI and SNRI to confirm that activity *or inactivity* is consistent with operator information



## Safeguards Challenges

- Maintain a credible safeguards system and address non-compliance
- Meet anticipated new requirements arising from nuclear expansion, safeguards in NWSs and disarmament initiatives
- Use the resources available for verification effectively and efficiently.



## **Addressing the Challenges**

- Maximise strengths inherent in the State-level approach, particularly under IS
  - Develop a new risk framework
  - Align safeguards approaches, policies and guidelines to the new framework



## Value of State-level IS Approaches

*Provides the basis for a focused and adaptable safeguards system which emphasises efficiency without undermining effectiveness and provides a high level of confidence in the annual safeguards conclusions drawn by the Secretariat*



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