



Order No. 706 exempt facilities which are regulated by the U.S. Nuclear Regulatory Commission (“NRC”) or the Canadian Nuclear Safety Commission (“CNSC”)<sup>4</sup>. The Commission has come to understand that not all facilities within a nuclear plant in the U.S. are regulated by the NRC. Hence, the Commission in its recent order dated September 18, 2008<sup>5</sup>, offered clarification by ruling that such facilities, commonly referred to as the “balance of plant”, are subject to compliance with the eight mandatory “CIP” reliability standards.

### **III. COMMENTS**

The IESO and Hydro One do not support the Commission’s ruling that facilities within a nuclear plant should be separated into facilities which would be regulated by a nuclear regulatory authority such as the NRC and facilities which would be required to comply with the North American Electric Reliability Corporation’s (“NERC”) cyber security “CIP” standards. Despite this ruling being specific to U.S. nuclear facilities regulated by the NRC, parallels can be drawn regarding the scope and mandate of the NRC in the U.S. and the CNSC here in Canada.

The CNSC has recently sought input from the nuclear industry regarding implementation of mandatory cyber security standards for nuclear facilities in Canada. The CNSC also recommended adoption of NRC and Nuclear Energy Institute (“NEI”) guidelines. In response to the CNSC initiative, the Canadian nuclear industry entities

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pertains to sabotage reporting, does not include the exemption statement that is the subject of this order.  
<sup>4</sup> The Canadian Nuclear Safety Commission (CNSC) protects the health, safety, and security of Canadians as well as the environment, and respects Canada’s international commitment on the peaceful use of nuclear energy. CNSC was established in 2000 under the Nuclear Safety and Control Act and reports to the Parliament through the Minister of Natural Resources. The mandate of the CNSC includes the review of applications for licences according to regulatory requirements, and the enforcement of compliance with the Nuclear Safety and Control Act, regulations, and any licence conditions imposed by the CNSC.

<sup>5</sup> Docket No. RM06-22-000, Mandatory Reliability Standards for Critical Infrastructure Protection

indicated strong support of the NERC cyber security standards and recommended that these standards be adopted for nuclear facilities. Although in Ontario there is a general agreement with the Commission's ruling regarding mandatory compliance with NERC cyber security standards for nuclear facilities, the IESO, Hydro One and the Canadian nuclear industry entities, particularly companies in Ontario, Ontario Power Generation ("OPG")<sup>6</sup> and Bruce Power<sup>7</sup>, are of the strong opinion that nuclear facilities should only be regulated by a single entity and mandatory enforcement of cyber security standards for nuclear facilities, be it the NERC "CIP" standards or other such standards, should be under the jurisdiction of the CNSC in Canada and the NRC in the U.S. Additionally, the IESO and Hydro One offer the following comments in response to the questions raised by the Commission.

**A. Whether there is a clear definition between those facilities within a nuclear generation plant that pertain to reactor safety security or emergency response and the non-safety portion or, as NRC refers to it, the "balance of plant":**

In a nuclear plant, it is not possible, either from a procedural or technical perspective to establish a clear demarcation between facilities which impact reactor safety or emergency response and facilities which impact reliability of the electricity grid.

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<sup>6</sup> Ontario Power Generation Inc. (OPG) is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. OPG's electricity generating portfolio as of December 31, 2007, had a total in-service capacity of 22,158 megawatts (MW), which consisted of three nuclear generating stations with a capacity of 6,606 MW, five fossil-fuelled generating stations with a capacity of 8,573 MW, 64 hydroelectric generating stations with a capacity of 6,972 MW, and three wind generating stations (including a 50% interest in the Huron Wind joint venture, which was sold in February 2008).

<sup>7</sup> Bruce Power operates the Bruce A and B nuclear generating stations, on lease from the OPG. Each Bruce station holds four CANDU reactors. Six of those units are currently operational and combine to produce more than 4,700 megawatts. Bruce Power is also in the process of restarting the remaining two units at Bruce A, which will provide another 1,500 megawatts of emission-free electricity.

Delineation of facilities within a nuclear plant is not feasible since there may be facilities which fall into the category of “balance of plant” but have an indirect impact on NRC or CNSC regulated facilities. Additionally, the nuclear plant system state model is an interconnected and complex operational model with multiple interfaces to the external system and the environment. Breaking up such a model into the two suggested groupings is not only technically difficult but would also lead to confusion in implementing safety and reliability standards, especially if these happen to be governed by separate regulatory agencies. As you are aware, the safe operation of nuclear generating plants is crucial to public health and safety and bulk power system reliability, primarily due to the nature of its radio-active fuel. Any such lack of clarity or confusion in the adoption and implementation of operational and reliability standards would be detrimental to public health and safety and bulk power system reliability. Given the possible repercussions of such delineation, nuclear owners and/or operators should not attempt to demarcate the specific facilities that pertain to reactor safety or emergency response, and the balance of plant that would be subject to the NERC CIP reliability standards.

The adoption of the NERC CIP standards should be a coordinated effort with, and under the jurisdiction of, the regulatory agency in question ( NRC or the CNSC) and such an effort should consider the entire nuclear plant as a single facility rather than breaking it up into the two distinct facility groupings. This will ensure coordination and consistency in the adoption and implementation of these standards across the two countries. Such a unified approach would help prevent the confusion and lack of clarity that would be created by the involvement of multiple regulatory and standards authorities and complicate the compliance monitoring and enforcement processes.

**B. Should Table 3 of the NERC CIP Implementation Plan control the implementation schedule of the cyber security standards**

The adoption of cyber security standards should not follow the implementation plan as currently stipulated in the NERC implementation plan. Generator Owners and Operators have already begun the process of implementing the various stages of the NERC CIP Implementation Plan as per its prescribed timelines. This has been an ongoing effort and it would not be appropriate to now obligate nuclear owners and operators to follow the existing implementation timelines. Furthermore, the IESO believes that the NERC CIP implementation plan was not fully vetted with the nuclear industry. Although the nuclear industry already has strong cyber security measures in place they would need to ensure consistency with the NERC CIP standards. This would require consultation and coordination with the nuclear industry and affected participants which would also involve the establishment of appropriate timelines.

**IV. CONCLUSION**

For the reasons set forth above, we do not support the Commission's ruling that facilities within a nuclear plant should be separated into facilities which would be regulated by a regulatory agency such as the NRC and facilities which would be required to comply with the NERC cyber security "CIP" standards. We respectfully request that the Commission consider our expressed concerns on the clarification ruling and issue a revised ruling on this matter after due consultation and engagement of all parties concerned.

Respectfully submitted,

/s/ Nicholas Ingman

Nicholas Ingman  
Manager, Regulatory Affairs  
**Ontario's Independent Electricity  
System Operator**  
655 Bay Street, Suite 410  
Toronto, Ontario  
M5G 2K4  
Canada

/s/ David Kiguel

David Kiguel  
Manager, Reliability Standards  
Hydro One Networks Inc.  
483 Bay Street, 15<sup>th</sup> Floor  
Toronto, Ontario  
M5G 2P5  
Canada

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