

Canada Industrial Relations Board



Conseil canadien des relations industrielles

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**Our File: 30551-C**

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April 24, 2015

**BY FAX**

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Dear Sir/Madam:

In the matter of the *Canada Labour Code (Part I-Industrial Relations)* and an application filed pursuant to section 87.4(4) thereof involving a question respecting the application of section 87.4(1) by the Professional Institute of the Public Service of Canada, applicant; Atomic Energy of Canada Limited (Chalk River Laboratories), respondent. (30551-C)

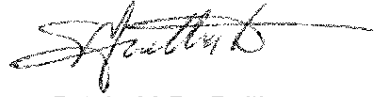
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Further to the hearing held in the above-noted matter, the parties will find enclosed the Reasons for decision issued by a panel of the Canada Industrial Relations Board composed of Ms. Elizabeth MacPherson, Chairperson, and Messrs. André Lecavalier and Gaétan Ménard, Members.

The word "Canada" in a stylized, serif font with a small crown over the 'a'.

To comply with section 20 of the *Official Languages Act*, the Reasons will be translated and published on the Board's website at [www.cirb-ccri.gc.ca](http://www.cirb-ccri.gc.ca). A copy may be obtained upon written request to the undersigned.

Sincerely,



Sylvie M.D. Guilbert  
Executive Director and Senior Registrar

c.c.: ESDC-Labour Program (Fax: **819-997-1693**)  
Mr. Jesse Peters (CIRB-NCR)

Encl.

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## Reasons for decision

Professional Institute of the Public Service of  
Canada,

*applicant,*

*and*

Atomic Energy of Canada Limited,

*respondent.*

Board File: 30551-C

Neutral Citation: 2015 CIRB 774

April 24, 2015

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On July 22, 2014, the Professional Institute of the Public Service of Canada (PIPSC or the union) applied to the Canada Industrial Relations Board (the Board) under section 87.4(4) of the *Canada Labour Code (Part I—Industrial Relations)* (the *Code*), for an order determining the outstanding issues between the union and Atomic Energy of Canada Limited (AECL or the employer) with respect to a maintenance of activities agreement (MOAA). The Board, composed of Ms. Elizabeth MacPherson, Chairperson, and Messrs. André Lecavalier and Gaétan Ménard, Members, held an oral hearing in Ottawa, Ontario on March 16 to 18 and April 7, 2015.

### **Appearances**

Ms. Patrizia Campanella, for the Professional Institute of the Public Service of Canada;

Mr. John Saunders, for Atomic Energy of Canada Limited.

### **I. Background**

[1] AECL is a federal Crown corporation, created by the Government of Canada as a centre of expertise in nuclear science and technology. Since 1957, it has owned and operated a nuclear reactor at Chalk River, Ontario (the NRU). The NRU is used for various research and commercial purposes, including the production of molybdenum-99 (moly-99). Moly-99 is a

**Canada**

radioisotope required for the creation of technetium-99m generators, used in nuclear medicine for diagnostic procedures. Nordion (Canada) Inc. (Nordion) is the sole client for the moly-99 produced by the NRU. Nordion is a private sector company that purifies and packages the product and sells it to radiopharmaceutical manufacturers and hospitals.

[2] In 2001, after a lengthy hearing and the testimony of a number of expert witnesses, the Board determined that a strike or lockout affecting the continued production of moly-99 would pose an immediate and serious danger to the health or safety of the public (*Atomic Energy of Canada Limited, 2001 CIRB 122*) (*AECL 122*). The Board directed the parties to negotiate an MOAA to ensure the continued production of moly-99 and other radioisotopes used for medical purposes. The Board's decision was upheld by the Federal Court of Appeal in *Chalk River Technicians and Technologists v. Atomic Energy of Canada Ltd.*, [2003] 3 F.C. 313.

[3] At the time of the Board's 2001 decision, the evidence revealed that some 60% of the world's supply of moly-99 was produced by the NRU and that there were few reliable alternative sources of supply. In the years following the Board's decision, the NRU suffered two shutdowns that were not related to labour disputes:

- a shutdown for routine maintenance in November 2007 that resulted in a world-wide shortage of radioisotopes. The Government passed emergency legislation authorizing the restart of the NRU on December 16, 2007; and
- a shutdown in mid-May 2009 due to a heavy water leak. The repairs necessitated a shutdown that lasted until August 2010. This shutdown occurred at a time when only one of the other four international medical isotope producing reactors was in production and caused a world-wide shortage of medical radioisotopes.

[4] These crises led the Organisation for Economic Co-operation and Development (OECD) to create a High Level Group (HLG) within its existing Nuclear Energy Agency (NEA) to improve coordination among producers of moly-99 and enhance supply chain management. Part of the HLG's mandate is to collect and share information, encourage transparency and coordinate reactor shut-down schedules in an effort to ensure an adequate, reliable supply of moly-99 at all times.

[5] In 2013, the Canadian Government announced a restructuring of AECL that included the creation of a subsidiary, Canadian Nuclear Laboratories (CNL), which is now responsible for operation of the NRU. The Government is currently engaged in a procurement process seeking

a private sector partner for the management and operation of AECL's nuclear laboratories, including the NRU.

[6] It was against this backdrop that the PIPSC served a notice to bargain on AECL for renewal of the collective agreement expiring June 30, 2014. The parties have agreed that some 42 bargaining unit members must continue to work in the event of a strike or lockout in order to ensure the safety and security of the site. However, they have been unable to agree on whether the continued production of moly-99 is necessary to prevent an immediate and serious danger to public health or safety. When the parties were unable to agree on the terms of an MOAA applicable to this round of collective bargaining, as required by section 87.4 of the *Code*, the union filed this application pursuant to section 87.4(4) of the *Code*.

[7] It should be noted that the Government announced in 2010 that the NRU would cease production of moly-99 as of October 31, 2016. However, it modified this decision in February 2015 when it announced that, subject to relicensing, the NRU would continue to operate until March 31, 2018 and would be maintained in a stand-by condition to produce moly-99 should the need arise.

## **II. Positions of the Parties**

### **A. The Employer**

[8] The employer argues that since the *Code* does not expressly provide for a reverse-onus with respect to section 87.4, as it does for complaints alleging a violation of section 94(3) of the *Code*, the union, as the applicant, bears the burden of proof in this matter. However, the employer admits that both parties have an obligation to provide convincing evidence to support their respective positions.

[9] The employer submits that the burden is a high one, as a determination that an employee is required to continue providing a service pursuant to section 87.4(1) of the *Code* deprives that individual of the statutory right to strike. It asserts that limits on the right to strike must not be taken lightly.

[10] The employer takes the position that the market for moly-99 has changed significantly since the 2001 Board order that required it to continue to produce moly-99 and other pharmaceutical radioisotopes in the event of a legal work stoppage. It argues that there is significant excess

capacity among other producers of moly-99, such that there would be no immediate or serious danger to the safety or health of the public if the NRU ceased producing this radioisotope.

[11] The employer explained that moly-99 is now produced by eleven reactors in the world, including the NRU (see Exhibit 1-23). At the time of the Board's proceedings, world demand for moly-99 was between 9,200 and 9,500 6-day curies per week. World production capacity is over 31,000 6-day curies per week, or more than triple the actual demand. The NRU represents only 2.6% of total world capacity and 8.8% of total world usage. This, the employer argues, is far different from the situation in 2001, when the NRU accounted for 42% of world capacity and 60% of world usage.

[12] The evidence provided by the employer, primarily consisting of reports from the HLG, demonstrates that, even with planned outages for maintenance and buffering for unanticipated problems, there is more than enough supply to meet world demand. The following chart is extracted from Exhibit 6 and demonstrates the respective capacity of each of the world's reactors:

Country & reactor	Normal operating days/year	Expected available capacity per week of 6-day curies
Belgium BR-2	190	7800 out of operation for parts of 2015 & 2016
Holland HFR	266	5400
Czech Republic LVR-15	210	2400
Poland MARIA	200	2700
Australia OPAL	300	1000 + 2600 in 2017
Brazil RA-3	230	400
South Africa SAFARI-1	305	3000
France OSIRIS	182	2400 closing end of 2015

Canada NRU	280	4680
Russia RIAR	350	1000
Russia KARPOV	350	350
Germany FRM-II	240	2100 * Market entry 2017, dependent on conversion of processors

[13] Moly-99 is provided to medical isotope processors such as Nordion. There are four other major processors: NTP (South Africa); ANSTO (Australia); IRE (Belgium); and Mallinckrodt (Holland). These processors supply radiopharmaceutical manufacturers who create the technetium-99m generators that are supplied to hospitals. Some of the processors, such as Mallinckrodt, are also manufacturers.

[14] The primary suppliers of technetium-99m generators to the Canadian market are Mallinckrodt and Lantheus. Mallinckrodt supplies 65% of the Canadian market and obtains 100% of its product from reactors in Belgium, Holland and Poland. Lantheus supplies the other 35% of the Canadian market and obtains 50% of its base product from Europe and 50% from the NRU via Nordion. It is estimated that only about 80 6-day curies per week, or 10% of the NRU's production, make their way to Canadian hospitals. The employer therefore concludes that even if Canada's current level of production did not exist, Canadian needs could easily be met from the excess capacity of the other reactors. It observes that, in recent years, the market has been able to cope with unanticipated supply issues such as a shutdown of both the Dutch and South African reactors for a period of time in late 2013 and early 2014. The employer also observed that hospitals have become more efficient in their use of moly-99 and that alternative diagnostic tests are available that do not require moly-99.

[15] The employer submits that any shortages in the supply of moly-99 can be mitigated in a number of different ways and there is no evidence to support the contention that there would be a serious danger to public health or safety should the NRU be shut down by a legal strike or lockout. It also asserts that, given the world supply capacity, there is no reasonably foreseeable immediate danger. It states that these alternative sources of supply are reliable and demonstrably sufficient and effective to remove any potential danger to the health or safety of the public.

[16] The employer suggests that the Government's direction to CNL that it cease production of moly-99 in October 2016 is an indication that the NRU is no longer a critical supplier in meeting the world demand for moly-99.

[17] The employer asks the Board to decline to designate the continued production of moly-99 as necessary in order to prevent an immediate and serious danger to the safety or health of the public.

## **B. The Union**

[18] The union submits that, with respect to maintenance of activities issues, the Board is called upon to perform a public duty to ensure that public health and safety will not be endangered by the exercise of the right to strike. Section 87.4 of the *Code* is predicated on a public interest concept and therefore is different from the usual complaint or application that comes before the Board. It submits that the burden of proof that applies in private disputes therefore does not apply to this provision of the *Code*.

[19] Although the union agrees that the circumstances related to the world market for moly-99 has changed since 2001, it submits that the supply chain for moly-99 is very fragile and that production of this product by the NRU therefore remains necessary for the protection of public health and safety.

[20] The union asserts that, although the Government has directed CNL to cease production of moly-99 as of October 2016, this decision was based on a strategy that included promoting alternative (non-reactor based) technologies for the production of technetium-99m and working with the international community to manage reactor outage schedules and coordinate information sharing and adjustments when unanticipated events occur. At present, none of the alternative technologies are producing technetium-99m on a commercial scale and the Government has extended the period during which the NRU will be capable of producing moly-99 to March 31, 2018. This extension is intended to help meet global medical isotope demand between 2016 and 2018 in the event of unanticipated shortages, given that the HLG projects that global supply could experience periods of tightness in 2017. The union submits that the fact that the Government has taken out this insurance policy against a potential black swan event is evidence that the continued production of moly-99 by the NRU is necessary to prevent a possible danger to public health and safety.



[21] The union submits that the shutdown of the Dutch and South African reactors in 2013-14 created a supply shortage that necessitated a doubling of production at the NRU on short notice in order to fill the supply gap. It suggests that this is evidence of the continued fragility of the supply chain. The union submits that, should a similar situation occur during a strike or lockout at the NRU, the world would face another shortage. It submits that such a situation is not impossible, as France will be shutting down its OSIRIS reactor at the end of 2015, taking some 2,400 6-day curies per week out of the available capacity, and Belgium will be undertaking a 16-month refurbishment of its BR-2 reactor in 2015 and early 2016.

[22] The union provided the evidence of Dr. Andrew Ross, a nuclear medicine physician at the Queen Elizabeth II Health Sciences Centre in Halifax, Nova Scotia. He testified as to the adverse effect on patient care of delays in diagnostic services due to shortages in the supply of radioisotopes and highlighted the importance of the reliable, continuous availability of medical radioisotopes. He also indicated that, since the world-wide shortage of 2009-10, the medical community has become more efficient in its use of radioisotopes. In November 2009, a document entitled "*Guidance for Maximizing Supply of Technetium-99M (TC-99M) During a Shortage*" was issued by Health Canada (Exhibit 3-5). This document is based on a plan developed by the Government of Ontario and provides guidance on options for health care practitioners to consider in the event of a moly-99 shortage. Nevertheless, Dr. Ross indicated that the shortages that were experienced in 2013-14 caused difficulties for his hospital, as it was not able to readily find an alternative supplier. The hospital has since changed suppliers and now uses Mallinckrodt.

[23] The union argues that, where public health and safety are involved, the Board should err on the side of caution. It submits that the Board should adopt a cautious approach to assessing the risk of a shortage of moly-99 due to a labour dispute affecting the NRU. It suggests that the Government will not be able to meet its commitment to maintain a reserve processing and production capacity until March 2018 unless the continued production of moly-99 is determined to be essential.

[24] The union submits that the demand for emergency production of moly-99, while difficult to predict, may arise at any time, as evidenced by the 2013-14 outages that resulted in a request that the NRU ramp up its production. It asserts that it is not possible to predict whether this type of an emergency would coincide with a strike or lockout. The union argues that the danger to public health or safety would be immediate and serious and that the production of moly-99 by

the NRU is still required until a more robust supply chain is established. It submits that the Board should ensure the uninterrupted production of medical isotopes so as to prevent any possible immediate and serious danger to the health or safety of the public in the event of a labour dispute.

### III. Analysis and Decision

#### A. Onus

[25] The Board has considered the issue of the onus of proof in cases involving public health and safety in earlier decisions interpreting and applying section 87.4 of the *Code*. As the Board indicated in *City of Ottawa*, 2009 CIRB 447:

[5] Section 87.4 of the *Code* is a "public interest" provision, added to the statute in 1999. While the Preamble to Part I of the *Code* expresses Parliament's commitment to free collective bargaining, Parliament has also seen fit to impose certain limitations on the ability of employers and unions to use economic sanctions to enforce their demands. Included in these limitations are measures to protect the public from immediate and serious danger to their safety or health during a labour dispute. Section 87.4 was enacted to take into account the fact that labour disputes regulated by the *Code* normally take place between two private parties, who cannot always be relied upon to keep the public's interest foremost during a dispute (see Andrew C.L. Sims, *Seeking a Balance: Canada Labour Code, Part I, Review* (Ottawa: Human Resources Development Canada, 1995) ("the Sims Report") at Chapter 10). When there is a question as to the services and activities that must be continued during a labour dispute in order to prevent an immediate and serious danger to public health or safety, the Board is mandated as the appropriate authority to make this determination.

...

[34] Because it has the potential to place significant limits on the ability of the parties to freely negotiate and engage in economic sanctions to enforce their collective bargaining demands, the Board is of the view that section 87.4 must be carefully interpreted. To give effect to Parliament's intent, it is necessary for the Board to interpret and apply section 87.4 in a manner that, to the greatest extent possible, balances the principles of free collective bargaining with the protection of the safety and health of the public.

[35] In *Canadian National Railway Company*, *supra*, the Board also made reference to the burden of proof in section 87.4 cases, and indicated:

[31] When the activities to be maintained are in dispute, the onus rests primarily with the employer to prove that certain services, operations or facilities must continue despite a strike or a lockout. That being said, both parties have the obligation to provide the Board with convincing evidence supporting their respective positions (*Atomic Energy of Canada Limited*, *supra*). It is imperative that the parties assist the Board by providing evidence that will enable it to determine whether or not the services are essential in order to protect the health or safety of the public and whether or not a strike or lockout will cause a danger (*Nav Canada*, [2002] CIRB no.168, at paragraph 168).

[26] This explanation of the onus of proof was based on the premise that it is the party seeking to limit the exercise of the right to strike or lockout that bears the burden of proof. In the instant case, it is the union rather than the employer that is arguing that certain services must continue despite a strike or lockout. Consequently, following the Board's earlier logic, it is the union that should bear the burden of proof. However, the counterbalance to this argument is that there is an existing Board decision, *AECL 122*, which declares that the continued production of moly-99 is necessary to prevent an immediate and serious danger to public health or safety. Ordinarily, the burden of proof would fall on the party seeking to overturn a Board order or decision. In this case, it is the employer that seeks a different outcome from the Board's ruling in *AECL 122*.

[27] In the instant case, the Board has determined that the public interest aspect of section 87.4 mandates that the party asserting that there is no danger to public health or safety should bear the burden of proof. Accordingly, the onus in this case is on the employer to persuade the Board that the decision that it made in *AECL 122* is no longer valid and should be revised.

#### **B. Merits**

[28] Section 87.4 of the *Code* contemplates the possibility that circumstances affecting the parties' obligations under that provision might change over time. Firstly, the statute requires the parties to give consideration to maintenance of activities issues each time a notice to bargain is given (section 87.4(2)). This provides the parties with an opportunity to review and confirm or amend an MOAA reached during a previous round of collective bargaining. Secondly, during a strike or lockout, any of the parties or the Minister of Labour may ask the Board to review and confirm, amend or cancel an MOAA (section 87.4(7)).

[29] In 2001, the Board was persuaded on the basis of the evidence before it that a strike or lockout affecting the NRU could pose an immediate and serious danger to the safety or health of the public if AECL was not able to maintain the uninterrupted and safe production of medical isotopes as prescribed by AECL's site license.

[30] That decision, *AECL 122*, related not only to the production of moly-99 but also to the production of other medical radioisotopes used in diagnostic and therapeutic procedures. At the time, AECL was the only manufacturer of moly-99, iodine-125, iodine-131 and xenon-133 in Canada and was the largest manufacturer and supplier of those products in the world. In this proceeding, the Board has been assured by the employer and the union that there are now

alternative sources of supply or substitutes for iodine-125, iodine-131 and xenon-133 and that the only issue in this proceeding is the production of moly-99.

[31] The evidence in the current proceeding is significantly different from that which was before the Board in 2001. Not only are there a number of other nuclear reactors capable of producing moly-99, but Canada's share of the market has diminished considerably. Specifically, the following changes have occurred since the Board's 2001 decision:

- AECL is no longer the primary provider of moly-99, either in Canada or the world. Whereas the NRU once produced 60% of the world's supply of moly-99, its production now represents less than 10% of world supply;
- There is more than sufficient capacity among world producers to make up for the loss of the NRU's actual production of 800 6-day curies per week. World demand is about 9,200 – 9,500 6-day curies per week, while world production capacity is more than 31,000 6-day curies per week;
- Given the world production capacity, other suppliers can be quickly found to fill orders for moly-99 should the NRU cease production;
- Moly-99 from other sources is of reliable quality. There is no reason to believe that patients would experience any health risks from the use of alternative sources of supply.

[32] In addition, the testimony before this Board indicates that hospitals have become more efficient in their use of moly-99 and are able to implement work-arounds in the event of shortages. These include running the diagnostic equipment 24/7; using modified scanning techniques to minimize consumption; using alternative (non-moly-99 based) tests; and delaying non-priority testing.

[33] The issue for the Board is whether, under the current circumstances, the continued production of moly-99 during a legal work stoppage is necessary to prevent an immediate and serious danger to the safety or health of the public.

[34] The public in this case consists of all persons requiring medical diagnostic procedures that rely on the use of moly-99. None of the parties has denied, and the Board accepts, that the use of moly-99 in these diagnostic procedures is necessary for the purposes of public health or safety. However, on the basis of the evidence before it, the Board is unable to find that an interruption in the production of moly-99 by the NRU could pose an immediate and serious danger to public health or safety.

[35] The evidence demonstrates that the current world capacity to produce moly-99 exceeds demand by more than 300%. The HLG carefully monitors and co-ordinates the scheduling of planned maintenance shutdowns. Should one reactor fail unexpectedly, the others are able to increase their actual production to make up for any shortfall, as occurred in 2013-14 when both the Dutch and South African reactors were out of service simultaneously. Under the current circumstances, the Board is unable to conclude that a shutdown of the NRU would result in the world-wide shortages that would have occurred in the past. Even with the planned shutdown of the Belgian reactor, BR-2, in 2015, a disruption in the NRU production would still leave a world-wide production capacity of some 17,000 6-day curies per week or almost double the current demand.

[36] A careful reading of the NEA document (Exhibit 3-8) introduced by the union to substantiate its position regarding the fragility of the supply chain reveals that the HLG's concern over potential shortages in the 2015-18 period is in large measure attributable to lack of processing capacity rather than lack of production capacity. The issue of processing capacity is not an issue before the Board in this proceeding, as it is Nordion and not AECL or CNL that processes the moly-99 produced by the NRU.

[37] While an unforeseen catastrophic event could happen that might affect world-wide production, the Board must make its decisions based on evidence and reasonable likelihoods, rather than hypothetical black swan scenarios. Under the circumstances that exist at present and the projections for the foreseeable future, the Board is not persuaded that a strike or lockout affecting the production of moly-99 by the NRU could pose an immediate and serious danger to the safety or health of the public. Consequently, there is no statutory requirement obliging the employer, the employees and the union to continue the production of moly-99 in the event of a legal work stoppage.

[38] The parties shall have ten working days from the date of this decision in which to agree on the content of an MOAA for the employees they have agreed are required to maintain the safety

and security of the site in the event of a strike or lockout. Failing agreement, either party may advise the Board of that fact. The Board hereby retains jurisdiction to resolve any remaining issues related to the maintenance of those activities in the event of legal work stoppage.

[39] This is a unanimous decision of the Board.



Elizabeth MacPherson  
Chairperson



André Lecavalier  
Member



Gaétan Ménard  
Member