Canadian Nuclear Safety Commission

Commission canadienne de sûreté nucléaire

Public hearing

Audience publique

Cameco Corporation:
Application by Cameco Corporation for the Renewal of Class IB Nuclear Fuel Facility Operating Licence for Cameco Fuel Manufacturing Inc. in Port Hope, Ontario

Cameco Corporation :
Demande de Cameco Corporation pour le renouvellement de son permis d'exploitation de son installation de combustible nucléaire de catégorie IB pour l'installation Cameco Fuel Manufacturing Inc., située à Port Hope en Ontario

November 3rd, 2011

Le 3 novembre 2011

Public Hearing Room
14th floor
280 Slater Street
Ottawa, Ontario

Salle d'audiences publiques
14e étage
280, rue Slater
Ottawa (Ontario)

Commission Members present

Commissaires présents

Dr. Michael Binder
Dr. Moyra McDill
Mr. Dan Tolgyesi
Dr. Ronald Barriault
Mr. André Harvey

M. Michael Binder
Mme Moyra McDill
M. Dan Tolgyesi
M. Ronald Barriault
M. André Harvey

Secretary:

Secrétaire:

Mr. Marc Leblanc

M. Marc Leblanc

General Counsel :

Conseillère générale:

Ms. Lisa Thiele

Mme Lisa Thiele

--- Upon resuming at 3:15 p.m.

--- L'audence est reprise à 15:15

THE CHAIRMAN: The next item on the agenda today is hearing day one on the matter of the application by Cameco Corporation, for the renewal of Class 1B nuclear fuel facility operating licence for the Cameco fuel manufacturing facility in Port Hope, Ontario. Marc?

Cameco Corporation:
Application by Cameco
Corporation for the Renewal of
Class IB Nuclear Fuel Facility
Operating Licence for Cameco
Fuel Manufacturing Inc. in Port
Hope, Ontario

THE REGISTRAR: So this is day one of the public hearing. The notice 2011-H-09 was published on August 24th. Submissions from Cameco and CNSC staff were received by October 3rd, and the supplementary information, in the guise of the presentation or slide decks from Cameco and CNSC staff, were filed by the deadline last week.

Commission member document, or CMD-11-H-17A

is confidential and will be discussed -- well, would be discussed in closed session, but, as indicated earlier, there won't be any closed session on the security document.

Day two of the public hearing is scheduled as the other ones, for January 18th and 19th, 2012, and will be held at the Town Park Recreation Centre in Port Hope. The public is invited to participate. The deadline for the public to file a request to participate and a written submission is December 19th.

In a notice published on August 16th, the CNSC announced that it is allotting funds under its participant funding program for this matter. The Commission received no requests for funding regarding the Cameco fuel manufacturing facility.

Mr. President.

THE CHAIRMAN: Thank you.

So let's begin by calling on the presentation from Cameco Corporation, as outlined in CMD-H-16.1 and 16.1A.

Mr. Thorne? You know the drill; over to you.

(LAUGHTER/RIRES)

11-H17.1 / 11-H17.1A

Oral presentation by

Cameco Corporation

MR. THORNE: Thank you, President, and Members of the Commission.

It's my pleasure to be able to introduce to my left, Mr. Alex Kodarin. Alex is the General Manager of Cameco's fuel manufacturing facility.

To Alex's left is Mr. Mike Longinov. Mike is the Manager of Environment and Occupational Health and Safety at the CFM facility. So, with that, I'll pass to Alex. Thank you.

MR. KODARIN: Good afternoon. My name is Alex Kodarin, for the record.

I'm pleased to provide a brief summary of our licence application document.

CFM's past performance and on-going efforts demonstrate that we are committed to managing a safe, clean, and reliable operation. We place a high priority on the safety of people, the protection of the environment, and the relationship we have with communities in which we operate, and we continue to position ourselves as a dominant manufacturer of fuel bundles for CANDU reactors.

CFM currently operates with a licence that

became effective March 1st, 2007. We are licensed to manufacture fuel bundles for CANDU reactors in Canada, using natural and depleted UO2. In addition, we can manufacture specialty fuel using enriched uranium.

We are uniquely equipped within the Canadian nuclear fuel manufacturing industry to provide significant support to the nuclear power generation community.

We are requesting a single change to our existing licence. The change we are requesting is a ten year licence term. We are confident than extended licence term is justified, given our consistent demonstration of managing a safe, clean and reliable operation.

In addition, risks associated with the operation of the CFM are low. These risks have been adequately managed historically and will be continued to be managed with the same emphasis placed on keeping safety and environmental risk as low as reasonably achievable. In short, we have demonstrated past performance that qualifies us to carry out future activities competently.

Cameco, and by extension, CFM, gauges its performance against four key measures of success. For the licence period, we continued to demonstrate achievement of important milestones in these areas.

In the area of a safe, healthy and

rewarding workplace, we achieved a major milestone having one year with no lost-time injuries.

In the area of clean environment, I'm pleased to say that on October 17th we completed a certification audit to register our environmental management system to the ISO 14,001 standard. The auditors have recommended the CFM be registered and we await the formal recertification letter from our registrars.

In the area of support of communities, during the last year our annual community survey indicated 87 percent approval of Cameco's continued operations in Port Hope. This is a level of approval that has been consistently this high for several years.

And, finally, the area of outstanding financial performance concerns itself with measuring our operation's return to the shareholders by way of maintaining reliable, cost-effective operations that deliver a high-quality end product to our customers. In this area, we have recently refocused our efforts on a multi-year, multi-faceted manufacturing excellence journey. This initiative forms the cornerstone of our daily continual improvement activity, and ensures that the operation remains competitive for the long term.

Let me now provide summaries of the safety

and control areas, as they are defined in the Commission members' document.

Under "Management Systems," a significant amount of effort has been employed for continuous improvement. In 2007, the fuel services division management structure was established to provide an important link between Cameco and its Ontario sites, and to ensure oversight and encourage sharing of best practices.

As part of a Cameco corporate initiative, CFM implemented Cameco's corrective action process, or CAP, and incident reporting system, or CIRS, and this was a major undertaking that has served us well. We now have an even stronger process in place for reporting incidents and near misses, for conducting timely investigations, and ultimately, for taking corrective actions.

As I mentioned earlier, a significant improvement to our environmental management system was made over the last 18 to 24 months, allowing us to register for ISO 14,001 certification. This effort required extensive awareness building on the shop floor, and considerable effort to update our management procedures.

CFM is an active participant in the CANDU owner's group, or COG, and the COG provides a framework

for cooperation and exchange of information between CANDU operators and their supply base.

And, finally, CFM has actively supported a corporate-wide initiative to develop its supervisors and managers into more effective leaders. This important continual improvement effort contains a number of classroom training and on-the-job training modules. We have graduated a number of leaders from this program during the licence period.

One of the biggest enhancements made to CFM's training and qualification program was the introduction of SAT, or systematic approach to training. SAT applies a robust risk-informed system to analyze and track training requirements and develop and deliver appropriate training.

Maintaining and improving a strong safety culture continues to be an area of focus for the company. We have worked to improve communication with our employees around safety. We encourage a questioning attitude and regularly include employees in safety inspections and in our corrective action process.

Combined, these efforts have helped us make steady improvements to the safety of our operations.

To ensure that that CFM is able to manage attrition and retirements effectively, a succession

planning process is in place. CFM management is looking ahead to anticipate what training and development needs are required to ensure that operations run safely at all times.

Effective systems are in place at CFM to ensure safe, clean and reliable operations. This is evidenced by the achievement of several important milestones.

I've already mentioned the milestone of one year of lost-time, injury-free performance, indicator that our conventional health and safety systems are robust.

During the licence period, we did not exceed any CNSC regulatory limits. We have also shown a number of single years where no reportable environmental incidences have occurred.

We have a number of key performance indicators in all areas of management focus: safety, radiation protection, environment, quality, costs and others to continually monitor our performance. Weekly, monthly and quarterly reviews are conducted to ensure corrective actions are taken, if necessary.

And finally, CFM, along with the entire Fuel Services Division, is taking positive steps towards managing the reduction of historic waste stored at the facility.

CFM maintains a detailed safety report. An updated report has been accepted by the CNSC, and this report indicates hazards are controlled effectively.

In addition, we updated our fire hazard analysis during the licence period and minor non-conformances were addressed. CFM meets the requirements of NFPA 801. A third-party expert has supported our efforts in this area, as they have across the division.

During the current licence period a flood plane study was conducted which indicated that neither a probable maximum flood nor a probable maximum precipitation event would impact facility operations.

In addition to the listed items, a third-party expert was retained to assess our facility against the lessons learned from the Fukushima Daiichi event.

The report indicated that CFM’s safety systems could effectively mitigate beyond design basis events and no gaps were identified in the report.

CFM maintains an effective process for change control. As such, changes to physical design are managed to ensure safe operations at all times.

A number of minor projects have been completed over the course of the licence to maintain plant systems and optimal working conditions or as part of continual improvement activity.

For instance, we've implemented improved filtration on our additional process stack through the installation of a HEPA filter.

Water containment was deployed where required by the fire hazard analysis and fire suppression was added to external buildings to ensure they were complying with all applicable regulations.

Our equipment is maintained using an effective preventative maintenance program. In the last 18 months CFM has migrated to the Cameco standard computerized maintenance and management system called SAP. This enhancement allows us to leverage best practices from the rest of Cameco while adding a level of efficiency to the task of managing preventative maintenance and reporting.

To this end, we have made several other important improvements to our PM program.

The first was the assignment of a full-time planner position, and this will ensure the timeliness and effectiveness of work that is required each day.

The second improvement was in support of the SAP system implementation.

We did a thorough review of our asset base and, more systemically, categorize assets based on a number of business considerations, including risk and

hazard level and safety significance. This allows a better decision-making model for prioritizing maintenance activities.

In addition to the maintenance system improvements, CFM has entered into an agreement with the TSSA to oversee all installations or modifications to pressure-retaining components should they arise.

CFM maintains a comprehensive radiation protection program.

I should take a minute to point out a typographical error in the CFM CMD submission and it's found in Table 5 on page 23.

In the first row under "Average Dose" for the year 2011, the table reads "0.0" and should read "0.04". We apologize.

As I mentioned earlier, no radiation dose levels were exceeded during the licence period. Our health physics laboratory is actively involved in monitoring exposure levels and recommending areas for improvement.

Dosimeters are used extensively by employees and visitors to monitor external dose. Urinalysis is done assess internal dose, and a respiratory protection program is in place for employees requiring this type of equipment to complete their tasks safely.

To enhance our radiation and protection program and in support of ALARA principles, a number of specific improvements were undertaken.

The use of continuous air monitors, or Alpha NAIR monitors, was initiated. The installation of shielding lowered the dose to workers. For instance, lead curtains were installed in an area of in-process pellet storage and plexiglass shields were added to carts of pellets to limit Beta exposure.

In addition, new storage cabinets were designed for respirators and hard hats. This reduces the potential for contamination while these items are deployed but temporarily idle.

We are committed to the safety of our employees and continue to drive improvements in this area.

I already mentioned that during the licence period we achieved a period of one year without a lost-time injury. In fact, we experienced a maximum of two lost-time injuries during any fiscal year, most with very low severity or duration.

I will offer one brief update at this point in time. Since the data cut-off date for the CMD, we have experienced two lost-time injuries. The severity of these incidents was low and both workers were able to perform normal activities after just one lost day of work.

To enhance our conventional safety program, we hired a full-time health and safety specialist to help improve the efficiency and effectiveness of investigating incidents and to drive faster closure of corrective actions.

A full-time nurse was also added in 2011. This is a position that is consistent across the division. We were able to leverage this added expertise to drive improvement in many elements of our safety program.

In addition to the added resources we have made other significant improvements such as updating our contractor management program to match requirements of Cameco’s corporate procedure; establishing a more systematic heat-stress management procedure in the plant; implementing Arc Flash Program to meet legislative requirements. This includes compliant clothing and personal protective equipment for all employees involved in such activities.

And we completed a number of projects to proactively address one of the biggest causes of first-aid and medical injuries at CFM, musculoskeletal disorders, or strains and sprains.

With an aging workforce, we have been looking more closely at optimizing workplace ergonomics and reducing the strain associated with certain job tasks.

We've have some good success in several areas of the facility.

Protection of the environment is a key measure of success at Cameco. CFM has experienced no exceedences of CNSC regulatory limits during the licensing period.

Cameco is required to meet federal, provincial and local regulatory requirements and our internal systems and programs are well developed and drive us toward continual improvement and maintaining compliance.

Of particular note, during the licensing period our air emissions measurement methodology was verified as being adequate by third-party experts. As can be referenced in the CMD, CFM's emissions are consistently reported to be a small fraction of the regulatory release limit.

Several other improvements were made to our environmental protection program during the licence period.

I mentioned that HEPA filtration was added to one of the main process discharge stacks. Our HEPA filters are maintained regularly and monitored to ensure that process emissions remain at the current low levels. All process stacks at CFM are now HEPI filtered.

To better delineate groundwater a number of new ground-monitoring wells were installed. We now have upwards of 70 wells in the program.

In emergency management and fire protection, CFM meets all regulatory requirements. During this licensing period CFM entered into formal agreement with the Municipality of Port Hope for emergency response.

The updated agreement ensures the two parties continue to work collaboratively and effectively to safely respond to emergencies that may occur at the Port Hope site.

As part of our continual improvement efforts, we conducted a joint exercise with the Municipality to test our emergency preparedness and response. This full-scale simulation was observed by the CNSC and internal staff and yielded some minor recommendations for improvement which have been implemented.

On a regular basis we conduct drills and exercises that simulate emergency situations and each event is used to improve systems and performance.

During the latter part of the current licence period, through a collaboration between the fuel service division sites, we made some important headway in the waste management areas.

An effort was undertaken to make certain that the inventory of waste stored at the CFM facility was accurately characterized and this detailed characterization aided in additional efforts to plan for safe disposal or recycling of historic waste materials.

In some cases, such as uranium contaminated oils and metals, we have successfully processed and recycled these historic waste materials.

Efforts will continue through 2012 and beyond to manage stored waste inventories while reducing, where practical, the quantity of uranium contaminated waste that is generated from ongoing operations.

CFM security plan covers programs needed to support requirements outlined in the Nuclear Safety and Control Regulations and other CNSC requirements. Five security compliance inspections took place during the current licensing period and we are currently compliant with all CNSC requirements.

CFM is compliant with all IAEA requirements. During the licensing period, CFM participated in a full range of IAEA and CNSC inventory verifications and short-notice random inspections.

Cameco will be developing new software in the next licensing period to facilitate improved tracking and reporting of uranium inventory at the site.

Primarily, CFM packages finished fuel bundles for transport by road to customers. These shipments are routine and procedures are well-established and effective. Our staff involved in the shipment of finished fuel have been trained in the transportation of dangerous goods.

An approved ERAP or emergency resistance -- sorry, emergency response action plan, is under file with Transport Canada and Cameco's qualified staff available to respond to offsite transportation events should they arise.

We have no projects currently requiring an environmental assessment.

We participate in Aboriginal consultation with the direction and guidance of Cameco's Fuel Service Division and we feel that our current consultations are appropriate.

CFM meets all requirements under the cost recovery control area. An approved PDP or preliminary decommissioning plan exists for CFM and has been recently updated. A financial guarantee for the facility is in place and we maintain all required operational permits from other regulatory authorities.

CFM participates actively along with the Fuel Services Division initiated programs to communicate

with the community. Operational updates are provided at community forum meetings and information is readily sent to all Port Hope households via our community newsletter.

Quarterly environmental reports are presented to the municipal council and posted on our website and quarterly and annual compliance reports are shared with CNSC and posted on our website.

Cameco maintains their required nuclear liability insurance for CFM. Our policy is in effect and in good standing and we have no additional or other matters to highlight.

I believe the outline I provided demonstrates that CFM has operated their facility in a safe, clean and reliable manner and is qualified to receive a new 10-year operating licence.

The facility also complies with the *Nuclear Safety and Control Act* and our current licence.

It was our intent to highlight some aspects of our past performance such as the Commission and other stakeholders have continued confidence in our commitment to operating in a compliant manner in the future.

I thank you for your time. I'm glad to take questions.

THE CHAIRMAN: Thank you.

I'd like to move now to a presentation from

CNSC staff as outlined in CMD H17.

Mr. Elder?

11-H17
Oral presentation by
CNSC staff

MR. ELDER: Thank you. Good afternoon. I'm still Peter Elder, Director General Directorate of Nuclear Cycle and Facilities Regulation.

With me again is Mr. B.R. Ravishankar, Director of the Processing and Research Facilities Division, and we are joined by -- at the front table now by Mr. Julian Amalraj, who is our Senior Project Officer in charge of this facility.

We are here to present the CNSC staff's view on the licence renewal of the Cameco Fuel Manufacturing.

So as with the other presentations today, they are structured in the same view -- way so I'm not going to go over the parts again. And I will just now hand the presentation over to Mr. Ravishankar for the next portion.

MR. RAVISHANKAR: Thank you, Mr. Elder.

Good morning, Mr. President and Members of

the Commission. For the record, my name is B.R. Ravishankar, Director of the Processing and Research Facilities Division.

Cameco Fuel Manufacturing is also located in Port Hope, Ontario and has been in operation since 1965 under various management. They employ approximately 190 people.

And moving on to the next slide, I would like to spend a minute going over the relative position of Cameco Fuel Manufacturing vis-à-vis, Port Hope Conversion Facility.

The large water body on the top-left portion of the slide is Lake Ontario. You can see Cameco's Port Hope Conversion Facility on the top-right portion. Cameco Fuel Manufacturing Facility can be seen at the bottom-centre of the photograph. The facility is shown here in this picture which includes the Town of Port Hope with certain -- some residential area around. The facility is located approximately 2.2 kilometres from the town centre.

The primary product manufactured by Cameco Fuel Manufacturing are fuel element bundles for use in Canadian nuclear reactors. The fuel element bundles are made using Zircaloy tubes and uranium dioxide pellets. The Zircaloy tubes are manufactured by CFM in a sister

facility in Cobourg while the pellets are made at this facility with ceramic-grade uranium dioxide supplied by Cameco's Port Hope Conversion Facility.

CFM handles and stores depleted and natural uranium as well as enriched uranium at a small scale.

The current licence, which is in place since 2007, was also amended twice during the current licence period. The first amendment was in July 2008 to authorize handling of enriched uranium, and the second amendment was in November of 2008 to change the name of the facility from Zircatec Precision Limited to Cameco Fuel Manufacturing Inc.

In their application for licence renewal, Cameco had indicated that they were not requesting any changes to the facility operations nor to their production capacity for the proposed licence period. Cameco has also requested that CNSC grant a 10-year operational licence for this facility.

As noted in the previous slide, Cameco has requested that the Commission grant a 10-year operating licence for this facility. The 10-year licence term request was reviewed upon the same logic as presented for the other two facilities.

As detailed in the other presentations earlier today, CNSC staff's proposed changes to the

licence include reorganization of safety and control areas, a new licence format and the introduction of licence conditions handbook.

Mr. Julian Amalraj will now continue with the presentation.

MR. AMALRAJ: Thank you, Mr. Ravishankar.

For the record, Julian Amalraj, Senior Project Officer at the Processing and Research Facilities Division. Good morning, Mr. President and Members of the Commission.

As part of reviewing Cameco's licence renewal application, CNSC staff assess CFM's compliance activities and their performance in the current licence period. CFM's compliance activities are based on CNSC's compliance activity plan which includes multiple onsite inspections, desktop reviews, review of events, detailed assessments of corrective measures put in place by the licensee to address deficiencies observed either during inspections or program.

This compliance activity plan is based on the relative risks of all nuclear facilities and is consistent with CNSC's risk informed regulatory approach.

From their assessments of CFM's compliance performance in the current licence period, CNSC staff conclude that CFM continues to maintain comprehensive and

mature core programs in all safety and control areas. There are no safety-significant items outstanding and Cameco has operated the CFM facility safely and in compliance with CNSC requirements.

CNSC staff’s assessment of CFM’s overall performance in all 14 safety and control areas is satisfactory.

In the next two slides CNSC staff present a summary of ratings for all 14 individual safety and control areas. CFM achieved satisfactory performance ratings in all safety and control areas. No safety and control area has been assigned a downward trend in performance.

CFM also made improvements to its employee training program which was significant. For that reason, CNSC staff assigned an improving trend for the human performance management area.

As mentioned earlier, CFM achieved satisfactory performance rating in all safety and control areas, including the eight from the previous slide and the six presented here.

Information pertaining to the safety and control area of security is protected and is submitted separately in CMD 11 at 17A.

We now present CFM's overall performance

and key statistics in certain safety areas, including radiation protection, environmental protection, conventional health and safety and other matters of regulatory interest to the commission and the public.

First, we will present an overview of radiation production. From the review of compliance activities CNSC staff conclude that CFM has a comprehensive radiation protection program. The maximum effective dose to a member of the public from CFM's radiological emissions remain a very small fraction of the regulatory limit of one millisievert per year. With the maximum value being 0.007 millisieverts recorded for the year 2008. The radiation protection program with CFM is satisfactory.

This slide presents the annual effective radiation dose, which is an indication of radiation exposure by a nuclear energy worker. The data is taken from CFM's annual compliance reports for the years 2006 through 2010. CFM has monthly and quarterly action levels for these parameters. As evident from the graph the average effective dose to workers at CFM during the current licensing period is low, and the maximum effective dose is well below regulatory limits, with the highest value at 9.58 millisieverts recorded in 2008.

Of relevance to CFM due to production

workers handling of uranium pellets manually is the annual extremity and skin doses. Hence we have presented the same here. The data presented in this figure is taken from CFM's annual compliance reports for the year 2006 and through 2010.

Again, CFM has monthly and quarterly action levels for these parameters. The maximum skin doses have historically been received by production workers and the average extremity dose is calculated as an average of left hand and right hand averages. The annual average extremity and skin radiation doses as well as the maximum extremity and skin doses received by nuclear energy workers at CFM are well below regulatory limits.

We will now present licensee's performance in the safety and control area of environmental protection. CFM's environmental protection program is intended to monitor and control all releases of radioactive materials and its impact to the environment from a facility as a result of licensed activities.

CFM's environmental program is well developed and the program includes monitoring and control of air emissions, liquid effluent releases, perimeter gamma monitoring, public dose, groundwater, as well as soil and vegetation monitoring. Overall, CNSC staff conclude that CFM's environmental protection program is

satisfactory.

In this slide we show CFM's total annual uranium releases for the current licence period. There are 12 stacks monitored at this facility. The current licence limit is based on drug release limits with regulatory limit of one millisievert dose to the public as a basis.

For the proposed new licence CNSC staff have proposed a more stringent value using 50 microsieverts to the public based on ALARA principles. The facility is also governed by action levels that ensure overall emissions are monitored and controlled effectively.

CFM's annual uranium in air emissions are well below regulatory limits, with the maximum of 50.55 grams per year recorded in 2008.

CFM's total annual uranium in liquid effluent releases for the current period is shown in this slide. Again, the current licence limit is based on (inaudible) release limits whereas the proposed new licence CNSC staff have proposed a more stringent value using 50 microsieverts dose to public based on ALARA principles.

CFM's annual uranium in liquid effluents are well below regulatory limits with a maximum of 1,052

grams per year recorded in 2010.

Mr. President, as you mentioned in the previous slides for the proposed licence period CNSC staff have recommended more stringent environmental release limits. The proposed new limits are based on a .05 millisievert effective dose to the nearest resident on the basis of ALARA. This change in determining the release limits aligns CFM with other nuclear cycle facilities.

While not present and setting, the resultant of this change is that the proposed limits for CFM are 120th of the current licensed release limits. CNSC staff have discussed this change with Cameco management, and Cameco has indicated that they can comply with the new limits without a transitional period.

Accordingly, staff recommend that the commission approve the proposed licence with the recommended new release limits.

In addition CNSC staff have also reviewed CFM's proposed action levels going forward, and they're accepted updated action levels. Details of which are in Table 8, page 40 of the CMD.

Another safety and control area of interest presented here is conventional health and safety. There were no safety significant events during the review period. CFM has had zero lost time to injuries in 2010.

For 2011 CFM reported zero lost time injuries until June, 2011. Subsequently CFM has reported two incidences.

Previous events associated with loss time injuries were promptly reported and corrective actions as reviewed by CNSC were implemented in a timely manner. CNSC staff is satisfied with CFM's event detection, reporting, investigation processes and timely implementation of corrective and preventive actions.

Overall performance of the licensee in this safety and control area was satisfactory.

We will now present selected other matters of regulatory interest. CFM has indicated in its licence renewal application of no changes to operations and capacity of this facility. CNSC staff determine that an environmental assessment in this case is not required.

CFM has an acceptable public information program very similar to the programs with the conversion facility. CFM is also in good standing with respect to cost recovery.

CFM was required to submit a revised preliminary decommissioning plan as part of relicensing along with a revised financial guarantee. CFM's revised preliminary decommissioning plan was reviewed against CNSC requirements as listed in Canadian Standards Association document N294 and was found acceptable.

CFM has proposed a revised financial guarantee of 19.5 million, which CNSC staff recommend that the Commission accept.

As part of the relicensing process staff identified and sent letters of notification to 12 aboriginal groups and organizations. To-date no concerns have been raised about the licence renewal and no aboriginal groups have applied for participant funding.

CNSC has made participant funding available for this licence renewal process to aid and encourage interveners for a sum of $25,000.

Regarding post-Fukushima review. Cameco submitted their final evaluation report to CNSC staff in August, 2011 in response to the CNSC 12/2 request. The report concluded that CFM facility is safe with respect to public workers and the environment and is capable of mitigating both natural and manmade risks.

There were no identified gaps with Cameco's fuel manufacturing facility located in Port Hope, and CNSC staff's preliminary reviews support Cameco's conclusions.

Mr. Elder will continue with his presentation.

MR. ELDER: Thank you. In considering the information presented here today and the additional information that CMD provided regarding the past

performance of the facility CNSC staff have included that Cameco's application for licence renewal meets the requirement of the *Nuclear Safety Control Act* and applicable regulations.

Cameco has operated the facility in compliance with the CNSC's regulatory requirements for the current licence period and is qualified to carry on activities per the proposed licence for the ten-year period.

Further to just state at the conclusion, CNSC staff recommend that the Commission approve the issuance of a ten year nuclear fuel facility operating licence for Cameco fuel manufacturing. Accept CNSC staff recommendation regarding the proposed financial guarantee, and this be increased to a value of $19.5 million.

And also we also suggest that Cameco be required to present a formal performance review to the Commission after five years.

Thank you. This concludes our presentation.

THE CHAIRMAN: Thank you. So let's start the question period here with Dr. McDill.

MEMBER McDILL: Thank you, again. My first question relates page 13 of 42 from Cameco, and also to the licence. Since CFM is going to be repurposing some of

the LVRF and SEU equipment, what is the role of keeping the enriched uranium clause that was added in 2008, why not remove that from the licence since the equipment's going to be repurposed? If I can ask both staff and Cameco.

MR. KODARIN: Alex Kodarin for the record.

CFM is in a unique position in the supply chain, the nuclear industry here support CANDU reactors. We feel it's a competitive advantage for us to have the flexibility to manufacture enriched fuel should the need arise. And we would like to keep that flexibility in our operation, we think it's a competitive advantage for CFM.

MR. ELDER: Peter Elder. I'll just add that they -- well, obviously they put in the new line to do the slightly enriched uranium. They also have in the past made fuel for other reactors, like research reactors that have required using enriched fuel as well. So the rich fuel provision is not only associated with the LVRF fuel.

MEMBER McDILL: But wasn't the licence amended in 2008 specifically for that purpose?

MR. ELDER: Yes, it was. Yeah.

MEMBER McDILL: And before that there was -- I believe there was some enriched uranium capability there, but I'm wondering if -- I understand the

competitive edge, that's not my decision. I'm just wondering if all of the equipment is being taken out, if everything's being reconfigured. Even to utilize some of the equipment to replace and enhance present operating equipment there won't be a line there anymore.

MR. KODARIN: Alex Kodarin for the record.

That is correct. There won't be a line there specifically for SEU fuel. However, again in the interest of having flexibility current equipment can be redeployed for SEU fuel, again, in the event that that might show up again in the future.

MEMBER McDILL: Thank you.

THE CHAIRMAN: Will you require, if you decide to get back into that line, will you require further approval from staff, from the Commission?

MR. KODARIN: Alex Kodarin for the record.

It's my expectation that if that does arise there'll be plenty of consultation with the project officers and the CNSC on that particular project.

THE CHAIRMAN: Staff, is that explicitly describing the LCH?

MR. ELDER: I'll have to check the LCH, because the main requirement from our end is that they have appropriate criticality safety programs in place. So whenever you do a change where a program that you haven't

used and then you go back and use, we would normally do an inspection before they started the activity, but we'll make sure that the LCH is explicit to say that they notify us before any intention to change.

THE CHAIRMAN: Thank you. Dr. McDill.

MEMBER McDILL: Thank you very much.

My next question is more an observation than with respect to day two. On page 15 there was -- there's reference to an assessment for a probable maximum flood and probable maximum precipitation. I'm not sure if this is the same study that the Ganaraska Conservation Authority did or not, but this is something that the community has expressed concern about in the past.

So for day two I think it would be useful to have something a little bit more than just that you made the assessment so that your community can see what the assessment results were. I realize it says it's -- neither will impact the facility, but contour line of the maximum extent of the flood would be I think helpful, for example. Is that something that can be done?

MR. KODARIN: Alex Kodarin for the record.

We do have that information. We can share that.

MEMBER McDILL: Okay, thank you.

My next question relates to, and maybe I

just missed it as people were talking and I was noting. On page 21 of 42 Cameco refers to eight exceedances of action levels and staff has seven. So is that a -- it's the same action levels?

MR. AMALRAJ: Julian Amalraj for the record.

We did clarify that with CFM. The eighth incident that they reported was a technicality per se, in that it was an issuance of a quarterly TLD to a new worker when a monthly should have been issued. So our staff did not account for that as an accident.

MEMBER McDILL: Okay, thank you.

And on page 29 also referring to slide 15. The new groundwater monitoring wells, just as we requested for the previous case I think again, this would be helpful for the community to see where these wells are located in a pictorial kind of a sense so they can identify with what you're saying. I can accept that there are 12 wells, but I don't know where they are, there's no picture.

THE CHAIRMAN: I thought there were 70 wells.

MEMBER McDILL: This is the 12 new ones.

THE CHAIRMAN: The new ones. But it would be nice to see the whole 70, and what kind of contour on any readings there are so we can understand maybe the

history behind and migration if any.

MR. KODARIN: Alex Kodarin for the record. We can share that.

MEMBER McDILL: Thank you.

And my last question in this series. This one is in staff's report on page 34 concerning radiation protection, and the updates are not complete. So could I have an idea of when they are going to be complete, maybe from Cameco? These are radiation protection updates. It's page 34, just above 3.7.3.

MS. PURVIS: Caroline Purvis for the record.

There were two inspections that were conducted during the licence term that had a focus of radiation protection. One in 2009, eight action items were issued. All have been closed.

There was an additional inspection in 2010 I believe in October in the fall. There's still two outstanding actions. Cameco has responded with their corrective action plans. At the current time staff is waiting for some additional information, however there's no -- I don't have the actual dates for expected completion. But I can say that there is no risk at the current time for the health and safety of workers related to these open action items.

MEMBER McDILL: Were the two outstanding items the same two left over from 2009, or were they different, two different ones?

MS. PURVIS: They were two new ones that were issued as a result of that 2010 inspection.

MR. LONGINOV: For the record, Mike Longinov.

In that section I do believe it also refers to that we have updated our radiation and environmental protection manual. We have submitted that to the CNSC staff in support of relicensing. We have received from the staff several comments. We have modified our manual and we have resubmitted that to CNSC staff, so we wait for their comments on that.

MEMBER McDILL: Will this be closed out by day two, maybe?

MR. AMALRAJ: We can issue an update on that. And that we have received the report and we are reviewing it right now.

MEMBER McDILL: Thank you, Mr. Chair.

THE CHAIRMAN: Since we're talking about update and open action. On 32 is the same kind of -- if I got it correctly -- if I can understand, page 32, second paragraph:

"A number of actions do remain open

due to longer term corrective action plan."

Are they ---

MR. ELDER: I'll just -- Peter Elder, for the record. Those are one that Ms. Purvis was talking about which we will provide ---

THE CHAIRMAN: So about the same?

MR. ELDER: No, they're not the same so we'll provide an update on those ones as well.

THE CHAIRMAN: Okay, thank you.

Mr. Tolgyesi?

MEMBER TOLGYESI: Merci, monsieur le président.

It's a kind of question to Cameco. We're witnessing a kind of increase in every operation for financial guarantee. Do you have any comments on that?

In this case, it's on page 46 when financial guarantees increase from 17.95 million to 19.5, and it was -- it's all other sides are increasing regarding financial guarantees.

Do you have any comments about this increase?

MR. LONGINOV: For the record, Michael Longinov.

It seems that every time we go ahead and

update this, it always seems to be making a better document and we find other areas where we can improve upon this.

Some areas, of course, things such as waste, was reassessed, pieces of equipment that are contaminated the equipment have been assessed, but other improvements such as price escalation and deleterious type materials are now included in that. We've also made some provision for expanded miscellaneous soil that may need to be removed. So we've accounted for things such as that. So that pretty much is the reason for the increase in the funding.

MEMBER TOLGYESI: And you feel comfortable with it?

MR. KODARIN: Alex Kodarin, for the record.

Yes, we believe it's an accurate representation.

MEMBER TOLGYESI: On staff presentation page 44, they are saying that Cameco submitted the required annual third-party review report and compliance with the fire protection. And CNSC staff reviewed and the scope of the TLT needed to be improved. So there was -- an accepted depth analysis was submitted and the CFM committed to submit the finalized report by October 21st -- October 2011.

Now being November 3rd, could you provide us with some update on this?

MR. AMALRAJ: Julian Amalraj, for the record.

CFM did submit an action plan that CNSC staff have reviewed and accepted and we are looking forward to an update in terms of implementation of the action plan.

MEMBER TOLGYESI: Merci.

This is a question to Cameco. According to proposed licence limits, there will be a kind of 95 percent decrease. It's on page 39 of staff's submission. A 95 percent decrease in uranium in the air release limits from 280,000 grams per year to 14 and similar uranium in liquid effluent release limits from 9.5 million to 475,000.

Do you have any comments? How do you see that?

MR. KODARIN: Alex Kodarin, for the record.

As shown in the CMD, our effluent levels are actually very low so we don't see any problems at all with meeting those limits.

MEMBER TOLGYESI: So you are fully satisfied and it's a kind of good move by licence conditions?

MR. KODARIN: Alex Kodarin, for the record.

I believe as my colleague Chris Astles mentioned this morning; yes, we like to be challenged with continuous improvement so we're fine with the numbers, thanks.

THE CHAIRMAN: Okay, I -- you -- this is to staff. You did challenge me and I am challenged. Why are we changing the units? In many of the other ones, it's kilogram per hour, gram per year, milligram per litre, gram per year. Why are we changing from one facility to another facility the units? It's complicated enough to understand it without sending a whole new set of units.

MR. RAVISHANKAR: Ravishankar, for the record.

I will attempt to answer that question. It's -- the units for action levels are generally based on the instrumentation and what is measured and that helps for a quick review and to determine whether there is an upset or not. So that is why the action level units vary from one location to the other.

With the Blind River facility, for example, for liquid effluent, there is a diffuser; therefore, the units are different. In the Cameco Fuel Manufacturing, this is gram per year because this is a total annual limit that has been put.

Now, we could convert that to kilogram per year if that facilitates better understanding and ease of -- less confusion, certainly.

THE CHAIRMAN: Go ahead.

MR. ELDER: Peter Elder, for the record.

I think it also actually reflects the differences in how on the liquid releases on how they are actually done and the processes of the two facilities.

The releases in terms of the fuel manufacturing is only uranium. That's all there is in it. There are no other issues. So it's dealt with on a -- you measure each one; how much uranium you have in your effluent.

Actually, in terms of -- well, we just presented the uranium number for Blind River; they actually have numbers for uranium, radium, another nuclear substance, as well as nitrates and then some general characteristics of the effluent. It's a bigger volume of effluent. And in those ones to make a comparison easier, we actually went to per litre rather than a total.

So it was more reflected to the type of facility. If you go back and if you compared the fuel manufacturing numbers and limits to the ones that are in for GE Hitachi on another fuel fabrication facility, they're in the same units.

So these are quite different processing type of facilities that they are, but we will look at in terms of whether there is some way to standardize it.

THE CHAIRMAN: Well, let me argue the other way. The reason we are interested is not because of the facility, but because of the emission on the environment and to the public.

MR. ELDER: Right.

THE CHAIRMAN: And, therefore, I'm more concerned about consistency.

And I must tell you how much I feel comfortable with four kilogram per hour rather than 14,000 kilogram per year. I mean, it's maybe symbolic and maybe the same thing, nevertheless, I -- somehow you want to relate it to something that makes sense about the impact on the environment. And if it's good enough to measure in Blind River as a kind of an emission, it should be good enough here too.

What am I missing?

MR. ELDER: I don't think -- as I said, it's historical. We also wanted to make sure we were doing comparison with the current licence to the (inaudible) intake, but I get your point, which is why we went through the presentation to say the logic behind it is all the same in terms of that, whether it's kilograms or grams,

gets converted back into an actual dose to the public and that's what is our potential dose to the public. This is all based on the one millisievert and originally now they're all based on the 50 microsieverts logic.

THE CHAIRMAN: But you can demonstrate what 50 microsievert looks like in a consistent way on an action level?

MR. ELDER: Yes. On -- well, on the limit level. The action levels you have to ---

THE CHAIRMAN: To the limit level, right. Okay.

MEMBER TOLGYESI: I have two more. On page 38 of staff -- I'm talking about liquid effluent monitoring, Table 6. At 2011, for the first six months, it's 295 grams for six months, which means about 600 grams for a year, just about.

Now, when you look over from 2007 to 2011, if I extrapolate the year and 600, it's a kind of cyclicity, 600 over 1,000, 600 over 1,000, 600. It's a kind of -- it's just a coincidence or it's some reasons behind this?

MR. LONGINOV: Mike Longinov, for the record.

This is really just a typical variation within the normal production. There are a couple of small

things that do occur.

For example, in 2008, we did embark upon a sewer inspection campaign to verify that none of our sewer lines could potentially offer a method to groundwater, and during that cleanout some historic material had been dislodged. So we attributed the spike in 2008 to some historic material in the sewer lines being dislodged.

In 2009, there's a drop. That drop is primarily due to four months where the facility was under a labour disruption. So no production was being undertaken during that time.

MEMBER TOLGYESI: And my last is to staff. On page 32, the first paragraph, at the top of the page, you are saying that in each case the inspection team concluded that while the RP program and its implementation were adequate, improvements were necessary in a number of areas.

If it's adequate, why is something necessary? Probably it should be recommended if it is necessary because it is not adequate.

I'm not sure if I am right or ---

MR. ELDER: I believe that it is just a choice of wording on this one. Maybe we should have said there was no immediate concern but there needed to be improvements in place for the longer term.

That was the sense and these are the issues that have already been discussed earlier.

But the intent of what we said is that there is no immediate concern but there were some areas that they've improved to make sure that they don't get into problems in the future.

MEMBER TOLGYESI: And could you provide more details on these improvements? What types of improvements are there?

MR. ELDER: I'll ask Caroline Purvis to go over them.

MS. PURVIS: Caroline Purvis, for the record.

Just adding on what Mr Elder said, the way that that was worded is because the program on paper was adequate.

However, when we go to do inspections, we're verifying the implementation of the program, and so there were certain deficiencies that were identified because what the licensee had committed to on paper wasn't being consistently implemented.

And so our recommendation for action was to look at those areas and to ensure that they had corrective action measures in place to ensure consistent effective implementation of those program elements.

For example, I can give you just a couple of examples. One had to do with maintaining records. One had to do posting of signs. One had to do with assigning visitor dosimetry.

So the licensee certainly has program elements which address all those things. There were deficiencies identified during that period of time of the inspection that showed us that consistent application of those requirements was lacking.

THE CHAIRMAN: Thank you.

Monsieur Harvey.

MEMBER HARVEY: Merci, monsieur le président.

In Cameco's document, page 27, the second paragraph from the bottom of the page, second sentence:

> "Most processed liquid effluents are sampled and analysed prior to discharge."

Why most? What about the others? Is there other effluents that should be or ---

MR. KODARIN: Alex Kodarin, for the record.

We have most of our processed water goes into a treatment facility. We do have some processed water that has discharged to the sewer directly.

I will add -- Alex Kodarin, for the record

-- that that is sampled as well. All effluent at the site is sampled.

MEMBER HARVEY: Last paragraph:

> "The combustibles are containerized inventory and put into storage pending the establishment of an external processing route."

What is the status of that? Is there any research or are you aware of elsewhere in the world that they manage that? Do you have any projection in the future where you would be able to do something with that?

MR. THORNE: Andy Thorne, for the record.

Currently, we don't have a route for the contaminated combustible materials. Historically, Zircatec actually stored those in containers on the site.

As a result, some of the work we've been doing as a Fuel Services Division, we have given some thought to the possibility of considering using the Blind River incinerator to deal with this contaminated combustible material.

At this point in time, we're reviewing it as a conceptual idea. We have had some initial discussions with CNSC staff in relation to this, but we would need to look at what things need to be put in place in the future to allow us to do that if we chose to take

that option moving forward.

MEMBER HARVEY: Staff?

MR. RAVISHANKAR: Ravishankar, for the record.

Yes, I confirm that there has been very preliminary discussions by Cameco with CNSC staff.

When CNSC staff receives a more detailed, concrete plan, then we will be reviewing it according to our requirements.

MEMBER HARVEY: I know the same question would be in page 45 of the staff CMD about the waste management radioactively contaminated, combustible waste are being stored on site until a proper disposal method is developed. So it's the same pattern for the combustibles and non? That's on page 45 of the staff CMD, which is the last paragraph at the bottom of the page.

Have you got it?

MR. ELDER: It would be the same type of issue. All it's saying is that in this licence there was a requirement for them to have a formal waste management program, and one of the requirements of such a program is they start to identify what is their disposable path for these sources of waste.

So this is an area where while it's safe to store them on site for now, looking forward they need to

look at and define what is their disposal path for these wastes.

There are commercial available -- you know, it's not -- these are not unique types of waste. There are commercially available routes to deal with them.

MEMBER HARVEY: So my other question, is it just a question of cost? There exists some option or it's something else or technically there is a problem?

MR. ELDER: I don't think this is a -- right now, I do not view it as a question of costs. I think this is another one where this facility joined Cameco -- it became part of Cameco in 2008, 2007. I think it's just as they come into adopting the normal Cameco processes for making sure that they have identified their waste treatment plans.

MEMBER HARVEY: What is the rate of expansion of that storage, I mean, for both?

MR. KODARIN: Alex Kodarin, for the record.

Expansion -- we don't have exact figures there, but we are able to manage it within the footprint of the facility and the current storage facility. So it's not an imminent issue right now.

MEMBER HARVEY: Could you give us an idea of the size of -- each year, you've got what volume or what quantity of those?

MR. KODARIN: Alex Kodarin, for the record.

I believe the number is something around 20 or so drums per year, 50-gallon or 45-gallon drums; that's what they're stored in. That's about the rate of expansion.

MEMBER HARVEY: Could you come up with the answer on Day Two, a more precise answer?

MR. THORNE: Andy Thorne, for the record.

One thing I would just like to add is, moving forward it is not our intention to simply keep storing this material. We are proactively looking at ways to recycle this material. Cameco, as a corporation, is committed to environmental leadership and we're not comfortable with just simply storing it on-site for the long term.

We believe we do have options. Like Mr. Elder said, there are a number of options for us moving forward, and in the very near future we will be dealing with this material appropriately.

MEMBER HARVEY: I like that answer.

THE CHAIRMAN: Just to be absolutely clear, because on page 34 of 42, this is the Cameco presentation, you make, however, a blanket statement, if you were "not able to find commercially viable" -- I'm looking at 3.11.4. You have not been able to find any Canadian

commercial viable, I assume.

So, to Mr. Elder, you just mentioned that there are such possibilities, so what's the problem here?

MR. THORNE: So just to follow up, this morning Mr. Clark mentioned the grit blasting capabilities that we have for recycling steel components, or contaminated steel components, by the conversion facility. That is we have some spare capacity of that equipment and it's quite likely that we -- moving forward, we would use that capacity to deal with contaminated steel generated at the CFM facilities.

So we're actually able to -- it's likely we're able to deal with this material without actually incurring any costs, moving forward.

THE CHAIRMAN: Thank you.

Monsieur Harvey?

MEMBER HARVEY: One last question to the staff: Page 49 of the -- of your CMD, the last paragraph:

> "Furthermore, CFM has reported in a timely manner any dangerous occurrences to the CNSC as required by the packaging transport."

How many occurrences during the current licence?

MR. ELDER: I'm just going to check if our

transport specialist is still in the room. Is Martin Thériault still -- or someone else in Transport? We'll have to get the answer then back to you.

MEMBER HARVEY: The question is there.

MR. ELDER: Obviously, none of them were significant or you would have heard about them before, but we'll get ---

MEMBER HARVEY: But dangerous.

MR. ELDER: But there are very -- they are -- like anything else, the reporting requirements are quite low if there's any -- we say dangerous, or potentially dangerous, probably would have been more appropriate.

MEMBER HARVEY: I'm just taking it like it is here.

MR. ELDER: Yes, I understand, and I -- it does beg the question, so we'll answer it for you.

MEMBER HARVEY: Okay, thank you.

Merci monsieur le président.

THE CHAIRMAN: Dr. Barriault?

MEMBER BARRIAULT: Merci monsieur le président.

I'd like to start off by just an editorial comment on page 24 of 42 of Cameco's presentation.

You refer in the second last paragraph you

refer to having acquired a facility nurse and a company doctor. The term “a company doctor” is a term that’s frowned upon by the medical societies, and, in reality, it dates back to the days prior to Medicare when companies would hire a doctor to look after the employees and their families.

In today’s context, it implies that this position is biased towards the company because he’s employed by the company. So you may want to try to find -- you know, quite often they’ll be referred to as the “occupational health physician,” or whatever, but the term “company doctor” is usually frowned upon.

And that’s just an editorial comment. You may want to talk it over with your own physician and say “How do you feel about that”. Okay.

On page 28 of the Cameco presentation again, Table 8, was this the table that you wanted us to modify? I wasn’t sure.

And the reason why I’m asking that is because you’re saying that the CNSC regulatory limit is 9,500 kilograms of uranium discharged to the sewage system. Am I correct in assuming that, in a year?

MR. LONGINOV: Mike Longinov, for the record.

That is correct, yes.

MEMBER BARRIAULT: CNSC, do you want to comment on this? What do you do if you wind up with a sewer leak? You've got another plume on your hands.

MR. ELDER: That's the current limit. This is the one we were lowering. And one of the things -- it's based on -- there's an issue with use of the derived release limits, is that it's a theoretical calculation based on the path to humans. So when you get a sewer -- you know, so one of the things we've tried to do is make sure it's lower, but we also do have the action levels to make sure that the performance is within the design of the facility.

MEMBER BARRIAULT: So what happens to this uranium in the sewer systems that wind up in the sewage treatment plant?

MR. ELDER: That would be correct, yes. And they also have to meet to make sure the municipality is aware and that they're meeting the municipality requirements for the sewer system as well.

MEMBER BARRIAULT: So nine -- that's the standard; 9,500 grams -- or kilograms, rather, per year is the standard?

MR. ELDER: That would be -- that's how much uranium you would have to put down the sewer system to cause a one milliSievert dose to a member of the

public.

MEMBER BARRIAULT: Okay.

MR. ELDER: Now, that's a very theoretical -- well, it shows, actually, that the uranium is not very radioactive.

Now, it is obviously a ridiculous number, which is why we're moving away from it, and making sure that their action levels are in place to make sure that their actual performance is acceptable.

But, actually, uranium, being a naturally occurring element and not strongly radioactive, you can actually have a fair amount of it before it becomes -- you need tonnes, actually, as this would show, before it becomes a health problem.

THE CHAIRMAN: But why do they label it a ridiculous number?

I think we have to differentiate between what is it we're talking about, and in my understanding of derived limit, it's an internationally-accepted quantity, they'll give you the one milliSievert, and that is an attempt to make sure that there's no health impact.

There's nothing to do with the ALARA principle; it's a precautionary principle that we try to put in as little contamination into an environment as possible, no matter what the DRL is.

MR. ELDER: That would ---

THE CHAIRMAN: So we will have to continuously improve our language ---

MR. ELDER: M'hm.

THE CHAIRMAN: --- as to what do we mean by some of those limits.

MR. ELDER: You are correct in terms of -- there is one that's based on a modelling of health effects. Another one is based on -- the action levels are based on much more in the precautionary, there's no reason to release it, let's not release it, regardless of the health effects.

THE CHAIRMAN: Right.

MEMBER BARRIAULT: Exactly.

The next -- on page 29 it says "during the first quarter" -- the second last paragraph, 29 of 42:

> "During the first quarter of 2009 a stack air concentration action level was exceeded at the waste treatment process stack. This was attributed to a failure of a hepa filter."

How long did this go on before it was detected, I guess, is -- and is there a system to detect if there is a leak?

MR. LONGINOV: For the record, Mike

Longinov.

The duration that it took to detect this would probably be -- if I remember correctly, one day.

We do stack monitoring on a daily basis and ---

MEMBER BARRIAULT: Okay.

MR. LONGONOV: --- because this would have exceeded our action level, it would have given us that early warning to institute an investigation.

MEMBER BARRIAULT: Okay, thank you.

THE CHAIRMAN: So is there an alarm trigger? How does one detect this? Is it automatically or is it an ongoing measurement? Is there a bell goes somewhere, a light flashes? How does anybody know?

MR. LONGINOV: For the record, Mike Longinov.

No. What happens is the sample is collected; it is brought to the health physics lab. The lab then analyzes it. The results are then reviewed by the technician and compared against an action level, and at that point in time he sounds the alarm, so to speak, to raise the concern and start the investigation.

THE CHAIRMAN: Thank you.

MEMBER BARRIAULT: The next question is on page 35 of 42. You make a reference in the last paragraph

to “enriched uranium”. I guess what I’m wondering is how much enriched uranium do you have at the plant?

MR. KODARIN: Alex Kodarin, for the record.

Right now we have about 0.2 of a critical mass onsite mostly in the form of contaminated waste materials from historic operations.

MEMBER BARRIAULT: So you don’t store or accumulate enriched uranium to use for processes?

MR. KODARIN: Alex Kodarin, for the record.

No, we don’t.

MEMBER BARRIAULT: Okay. Thank you.

THE CHAIRMAN: Just to piggyback on this one.

In staff CMD on page 13, it talks about a little bit of special material, fuel containing enriched uranium.

I’m curious about what are you using it for? These are fuel types, different fuel types. Enriched uranium, what -- if you look at this page 13, 1.1.7, last paragraph, “The facility has two laboratories.”

MR. ELDER: So just go over it since it’s staff CMD, these are things like research reactor fuel.

THE CHAIRMAN: So I guess are you seeing some?

MR. ELDER: Well, in the past, they have produced fuel for a SLOWPOKE reactor, so they have that laboratory available. If someone else gave them an order, they would be able to do it again in the future.

THE CHAIRMAN: But what is enriched uranium being used right now -- nowadays?

MR. ELDER: As they've mentioned, what they have onsite right now is actually just in their waste quietly so they don't have any new material. So if someone was going to ask them to do something, they would have to acquire the rich uranium for that particular job. So they don't store it in anticipation; they get it as they need it.

THE CHAIRMAN: Thank you.

Dr. Barriault?

MEMBER BARRIAULT: Okay, the next question is on page 37 of 42. It's the top paragraph and when it says that you had an event involving a shipment of 11 ANF-250 containers, one was missing the product container insert.

Does that mean that the product was missing out of that container or is it just a lining, or what is that exactly? I guess I wasn't clear.

MR. KODARIN: Alex Kodarin, for the record.

That shipment was actually a part of the

wind-up of our SEU operation, so there was SEU fuel in that container and it was just an insert. It was part of the container itself that was missing in the shipment, but there was no immediate health risks there and the shipment was delivered safely.

MEMBER BARRIAULT: Was it the content also?

MR. KODARIN: The content was intact, yes.

MEMBER BARRIAULT: Okay, thank you.

I'll go back to your -- you've had, I understand, two lost-time injuries the last year?

MR. KODARIN: Alex Kodarin, for the record. That is correct.

MEMBER BARRIAULT: Yeah, what was the -- what kind of type of lost-time injuries were they? What was involved in these things?

MR. KODARIN: Alex Kodarin, for the record. They were, again, both minor injuries in terms of the lost time for the employees. One was a back sprain which is a re-aggravation of a previous condition. One was a slip on a slippery floor by an employee.

MEMBER BARRIAULT: Okay, thank you.

Next question really is to CNSC staff. The financial guarantee, what form is it? Is it gold or ---

MR. ELDER: They are -- Peter Elder, for the record, sorry.

They were irrevocable letters of credit. That's what Cameco ---

MEMBER BARRIAULT: Provided by financial institutions?

MR. ELDER: Provided by -- on a -- by a Canadian financial institution ---

MEMBER BARRIAULT: Thank you.

MR. ELDER: --- which we consider one of the -- is definitely acceptable form.

MEMBER BARRIAULT: Secure?

MR. ELDER: Secure, yes.

MEMBER BARRIAULT: Yeah, not Greek bonds?

MR. ELDER: No.

MEMBER BARRIAULT: I take that back, Mr. Chairman. I'm sorry. I have no further questions.

Thank you.

THE CHAIRMAN: Thank you.

Any other? No? Mr. Tolgyesi.

MEMBER TOLGYESI: On the staff presentation, page 19, before last paragraph. You are saying that a staff inspection in December 2006, there was several findings. I don't know how many of them were there, but two are still open.

One is related to design control, another one is to the maintenance program. And apparently, these

two are open due to -- how you call -- due to change of -- you are saying, “delays in implementation of the corrective actions was due to change in ownership” which is now about five years since 2006.

I don’t know when you took over as Cameco, but probably is it about the time to complete them, and was the timeframe what you expect that they will be completed?

MR. KODARIN: I can comment on that. Alex Kodarin, for the record.

CFM does have a robust change control program in place and we have several of the supporting programs in place as well that would formulate the bulk of a design change control program, so we feel we’re in a good position right now to wrap that program up into, I guess, an overarching program.

At this point, I have said, we do put all of our minor changes to the facility and they are -- our changes in the facility are minor with relatively low-risk throughout our formal change control program. So we think we are operating at a safe manner at this point in time.

MEMBER TOLGYESI: I understand that. I hope so you do that, but you didn’t answer.

My question was that do Cameco has any timeframe for these two findings?

MR. KODARIN: Alex Kodarin, for the record.

The -- I think that one finding that is there is around the preventative maintenance program and I believe I spoke to that in the presentation. We have done extensive work in that area over the last 18 to 24 months, so we feel we are compliant there.

And the second item is around the design change control which we will wrap up in the next two or three months; that's our timeframe.

MEMBER TOLGYESI: Staff, do you have any comments on this?

MR. ELDER: In terms of -- Peter Elder -- this is an area where one is actually -- it's just been pointed out to me there is an error in the CMD. The inspection was actually in December 2007, not 2006. That doesn't say it's still a long time.

On this one that's in that period, they started to put in one set of corrective actions and then stopped because they re-jigged and they went to Cameco's standard processing. We actually believe that going to those -- that corporate standard is a better solution, but it has been taking a little longer than we thought.

We have planned -- they've noted in their presentation that they've got a whole new management system that they're installing, so we are going to inspect

that probably not before the second day, but we will look at the program documents associated with it before Day Two if they're available.

MEMBER TOLGYESI: Okay, anyway, you have a commitment that the second one will be corrected within three months?

MR. KODARIN: Alex Kodarin, for the record. Yes, we're comfortable with that.

MR. ELDER: Just -- Peter Elder, for the record.

Just to provide some comfort on this one, we have seen the Cameco standard program so we are comfortable with the Cameco standard programs. This is about making sure they are appropriately implemented at fuel services.

THE CHAIRMAN: The problem is that we became very allergic to any outstanding issues that go beyond two years; let me put it that way.

If it's a serious issue, it requires immediate attention and if it's a minor issue, it can be fixed quickly. So anything that gets dragged in for three years is something that worries us and that's why there's all this attention about what's the closing date and whether the observation was found, really this is what it's about. So anything you can put some clarity in dates

for Day Two would be welcome.

Anybody else?

Okay, I have just two quick questions. I notice that you mentioned that you now have monitors of alpha-in-air. Is that something new? I'm trying to -- maybe I missed is somewhere, but is that now normal practice? You have some monitors that can actually measure Alpha emission in air?

MR. LONGINOV: For the record, Mike Longinov.

This is relatively new, probably maybe four or five year's worth of newness technology. This is something that we are working on to try to commission. It is a complicated one with regard to setting up a computer interface with the device, but it will allow us a quicker detection of uranium in air in the workplace. And it will also give us more refined or more granular data along the course of a 24-hour period.

For example, it will give us data every half hour, as opposed to an integrated air sample that would integrate over, like, a 12-hour period.

THE CHAIRMAN: Staff, is that kind of device available elsewhere or should we apply it elsewhere?

MS. PURVIS: Caroline Purvis, for the

record.

So what -- adding on what Mr. Longinov just described, there's -- there has been uranium in air monitoring in the facility for many, many years. But as he described, it was collecting information over a period of time and then measuring it after the fact.

What he is describing is the installation of real-time monitoring so that you get immediate ability to react and to protect workers if you are seeing changing conditions. So you know, if you were to ask me the question you've just asked me, I would say, you know, as technology improves, we would expect licensees to integrate that improving technology into their workplaces to protect workers; so yes.

THE CHAIRMAN: So are they -- this is outside of scope here, but are the nuclear power plants using such sophisticated devices?

MS. PURVIS: Caroline Purvis, for the record.

Certainly when we look at the alpha monitoring and control programs at the nuclear power plants, we're looking for long-term corrective actions in many areas; one of which is instrumentation. And, indeed, there are these devices in facilities currently.

THE CHAIRMAN: Thank you.

My last question is on dosimetry services. Are you licensed by CNSC or are you using external services?

MR. LONGINOV: Mike Longinov, for the record.

We do not have a dosimetry licence with the CNSC. We use external dosimetry service providers.

THE CHAIRMAN: A licensed one, I assume?

MR. LONGINOV: Mike Longinov, for the record.

That's correct. Licensed with the CNSC, yes.

THE CHAIRMAN: Okay. Thank you very much. I think this is complete. Marc ---

MR. LEBLANC: Yes?

THE CHAIRMAN: --- you shut us down.

THE REGISTRAR: Yes. This brings to a close the public portion of this hearing. We had already indicated there would not be an in-camera session on security. The hearing is to be continued with day two on January 18th and 19th at the Town Park Recreation Centre in Port Hope. The public is invited to participate. Persons who wish to intervene on that day must file submissions by December 19th, 2011.

The hearing is now adjourned to January

18th and that's it. Thank you for attendance and see you in Port Hope in January. Thank you.

--- Upon adjourning at 4:40 p.m.