



CNSC/ Industrial Radiography Working Group Meeting October 7, 2015 260, 2301 Premier Way, Sherwood Park, AB, T8H 2K8

### Attendees

C. Moses (CNSC)
H. Rabski (CNSC)
K. Mayer (CNSC)
P. Larkin (CNSC)
F. Dagenais (CNSC guest)
A. Brady (TISI)
B. Gilligan (guest CEDO from TISI)
T. Levey (Acuren)
B. Bizzarri (GB Contract Inspection)
C. Auzenne (QSA Global)

### Absentees

P. Fundarek (CNSC)L. Simoneau (CNSC)P. MacNeil (A-Tech)D. Hanna (SGS)

Chair of the Meeting	Co-Chair
K. Mayer	A. Brady

C. Moses opened the meeting with an introduction of himself and his background. He has replaced A. Régimbald on the Working Group since he is the current Director General of the Directorate of Nuclear Substance Regulation (DNSR).

The agenda was adopted as is.

### 1) Review of Minutes from Previous Meeting

The minutes of last meeting (February 24, 2015) were reviewed. A discussion was held on the minutes around item 3 of the previous minutes on the event reporting section. A motion was made to amend the minutes to reflect the discussion and correct wording to read that the event form was developed as an initiative through the Working Group. The form was reviewed and circulated by CIRSA and is currently

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available on the CIRSA website.

Four working group members were missing from the meeting (two from CNSC and two from Industry).

With the corrections stated above, the February (Winter 2015) minutes can be accepted and adopted, based on the Fist of Five approach. A motion was put forward by T. Levey to accept the corrected minutes and seconded by A. Brady. The minutes will be translated and posted on the CNSC website.

It was discussed and agreed upon again by a Fist of Five vote that the Terms of Reference will be reviewed annually. Since the ToRs were reviewed in February 2015 the yearly review of the ToR for 2015 can be considered complete.

The Action List produced from the previous meeting was also reviewed. Item 15(WGM) 1.2 - K. Mayer provided an update on the current status of the document (REGDOC-2.5.5), noting that it was temporarily put on hold due to resource challenges. K. Mayer noted that these have now been resolved and the writing of the document will resume.

It was noted that the IR industry have a continued interest in the document, as they have invested in their existing bunkers. CNSC staff noted that they do not expect that existing structures would require a complete rebuild but rather ensure review against design considerations that will be outlined in the proposed REGDOC.

There was good discussion on the future document and any updates will be communicated to the IRWG members.

# Action - K. Mayer to provide a further update on REGDOC-2.5.5 at the next Working Group meeting in Feb 2016.

Other discussions -

A. Brady asked about CNSC staff, in particular OID staff and whether they have conventional occupational health and safety training?

H. Rabski provided information on the Inspector Quality Training Program (ITQP) at the CNSC which includes specific training in the following:

- Occupational Health & Safety (OH&S)
- Defensive Driving
- H<sub>2</sub>S Alive Training
- as a rule inspectors check in with the H&S staff on inspections

Everyone was very pleased that F. Newbury has returned to the Personnel Certification Division (PCD) completing the role of evaluating new certifications and renewals.

Corinne Françoise, Director, PCD has agreed to look into the process delays and mix-ups with testing

## with NRCan and NAIT. Action – K. Mayer to provide an update on the findings at the next meeting or before if available.

## 2) What's new at the CNSC?

C. Moses introduced himself to the Working Group members, since he is the new Director General of the Directorate of Nuclear Substance Regulation; he will be replacing A. Régimbald (former DG) on the Working Group. C. Moses gave the group an overview of his background and then discussed some upcoming points of interest at the CNSC.

## Financial Guarantees (FG)

Implementation of the new CNSC Financial Guarantee (FG) program for nuclear substances, prescribed equipment and Class II nuclear facilities is going very well; there has been good initial compliance. There was a lot of follow up with licensees by OID, 100% compliance with the Licence Condition was achieved by mid-August 2015.

This program is a heavy administrative burden for the CNSC and CNSC members noted that they were looking for improvements on the front end to make the process more efficient. Feedback or comments on the process were invited.

### **Regulatory Framework**

C. Moses reported that a discussion paper was drafted on Safety Culture; the document was really intended for Nuclear Power Plants and major facilities, but that best principles are universal and can be used as guiding principles for other areas. A similar approach will be taken with many of the regulatory documents going forward.

### Regulatory Oversight Report

The 2014 Regulatory Oversight Report (ROR) was presented at the Commission Meeting in September 2015.

There was discussion that IR members have attended in the past, and this year the President was looking for their presence. It was noted that this has been a very busy and different year in Industry and that people were not available or not able to travel. C. Moses encouraged industry's engagement in future meetings, noting that Industry's presence and comments on the document would be appreciated. DNSR staff made it clear that there is value added to have interventions from licensees and groups. As DNSR licences are issued by designated officers, DNSR licensees generally only appear in front of the Commission to discuss events, which focusses on failures and lessons learned. The ROR is an opportunity to highlight the good practices that are in place in the industry.

# Action – K. Mayer to invite IRWG members in advance to attend the Commission meeting next year. Reminder - it is possible for participation by teleconference, or by video conference from one

### of the regional offices.

### **RSO** Certification

There was some discussion on RSO certification and the potential impacts/benefits of introducing a formal certification for RSOs for Industrial Radiography. It was noted that this was discussed at the recent Commission meeting, further to the suggestions from the Canadian Radiation Protection Association (CRPA).

There was good discussion on how the process would affect the IR industry and the current process that is followed by Industry. The consensus within the working group is that before appointing a new RSO, they ensure the candidate is well trained and that they do not feel that any more formal certification is needed at this time. Recognizing of course that specific certification is always a bonus and that when you hold a certification there is always the possibility of losing your certification, which may hold some more accountable. Industry members noted that they were not sure if there is true benefit for the industrial sector.

C. Moses indicated that we are not sure where this will go, but that he was interested in feedback from industry.

C. Auzenne discussed the process in the U.S. and how the RSO names appear on the actual licences. The process is much different in the U.S. than it is in Canada. There was discussion on the Radiation Safety manuals (RSM), policies and responsibilities of RSO, there is evidence of due diligence and since the manuals are referenced on the actual licences, they are held accountable to them. It is important to note that the discussion was not geared towards those who were present but others who choose not to attend CNSC meetings and do not engage or may not have a healthy safety culture. The CNSC has tried to reach out as much as possible to encourage attendance at the meetings.

In terms of enforcement, it was noted that certification could be a useful tool, as it may bring the RSO in front of senior management at CNSC or else the Commission, which may hold the RSO more accountable with consequences.

Ultimately, working group members were not adverse to the idea, noting that, certification requirements would have to be specific to the IR industry rather than along medical lines, and should consider the value added considering it could incur significant additional costs such as for PCP-09.

It is a topic of discussion for Industry members to take back to CIRSA and discuss with industry.

C. Moses indicated that it is currently a topic of discussion and it will likely be a long process to determine the right tool for RSO certification. There will be lots of communication and discussion prior to implementing such a change.

### Licence Consolidation

Noting the CNSCs current focus on the consolidation of licences input from industry members was sought as to the potential benefits. Industry members noted that they did not feel that the current practice was particularly burdensome and did not see substantive benefits of consolidating licences for industrial radiography operations. It was noted that about 90% of IR licensees only hold one licence. The efforts made by CNSC staff, to coordinate dates and deadlines for multiple licences was recognized. Overall, it is not a big issue with this industry.

CNSC staff also spoke to the broader objectives of reducing the administrative burden where possible to benefit Canadians and not to impose unnecessary burden. Looking for feedback on red tape reduction initiatives, industry members were encouraged to bring forward any suggestions or opportunities to reduce the administrative burdens/challenges.

## Security

Industry members noted their appreciation for representation from the CNSC Nuclear Security Division (NSD) at the annual meeting. There was some discussion on security plans, NSD is working together with OID and NSRDLD to align expectations and improve the process.

Specifically, R. Duguay (NSD) is working on a newsletter article with DNSR. It was also noted that OID is working to update the security inspection worksheets.

Overall, the process is much improved. There could be better communication as there seems to be additional requirements being added. NSD being present at annual IR meetings is very beneficial to industry.

### **Events Project**

The DNSR events project is ongoing. The INES scale is now being used in the management of reportable events specifically in reviewing categorizing events.

A REGDOC is being developed for both CNSC staff and licensees with respect to event reporting. The intent is to create a guidance document that will provide information to licensees on what to report and how to report (details) as well as guidance to CNSC staff for the comprehensive review of the information submitted.

DNSR management is more involved in the review of events as well as coordinators in OID and LPOs in NSRDLD. There is a high volume of event reports; and the process is being reviewed on the basis of risk and assessment, the level of investigation and follow-ups. The reports will be trended in order to generate better overall reporting.

A REGDOC has recently been written for reporting at NPPs and major facilities, the general principles of this document will be used to help develop a guidance document for DNSR licensees. The timeline for publication of this REGDOC is likely about two years, however by following a similar approach to the existing document, this may help to expedite the process.

The document will go through a consultation process and Industry will be kept informed of the progress of its development at future meetings.

## REGDOC-1.6.1 Nuclear Substance and Radiation Devices Licence Application Guide

The licence application guide (LAG) has been updated (RD/GD-371) with some editorial changes to make expectations more clear.

## Tablets for Inspectors

CNSC inspectors are now using tablets; a portal is being developed so that pdf copies of the inspection can be downloaded and/or sent to licensees. Rather than the carbon sheet that was handed out at the end of inspections in the past. Inspection reports will now be sent out electronically (moving towards a paperless process).

Surveys are also being sent along with the inspection reports – in the hopes of generating feedback on the inspection process, a series of questions are being posed (what went well, what didn't go well, etc.). Industry members provided comments that it would be nice if inspectors could carry paper copies of the survey with them (much easier for IRs to complete). Also, the inspection reports tend to go to the Corporate RSO who may not have been actually involved with the inspection. This is a heads up for Industry members to be informed should you receive a survey, it is important to follow up with the field RSOs, it may be a good practice to forward the survey to them for completion.

## 3) Annual 2015 CNSC Meeting Feedback Discussion (De-brief)

CNSC staff felt that the meeting went very well. Industry members agreed that the attendance was very good, the subjects were well chosen and everyone seemed pleased. B. Bizzari mentioned that it was very nice to see a representative there from NAIT and furthermore there appeared to be several people there that had not attended in quite some time and other regular attendees who were not present.

It is likely due to the fact that the meeting was changed and then with the downshift in economy it was not a great year for everyone to attend as pipeline work is ramping up in the fall and preparations for the busy season.

The feedback received by CNSC staff on the proposed meeting times was discussed. There was stronger indication to keep the meeting in the spring rather than the fall. It was also indicated in the meeting that the spring would be a better time for CEDOs to attend as the fall is quite busy for them. A fist of five decision was taken to have the annual meetings in the spring (2015 was an anomaly due to the Provincial elections in Alberta). CNSC and CIRSA will coordinate to have their respective meetings back to back, to make it easier for people to attend both.

Overall, the feedback showed that the CNSC/IR Working Group finally got it all right!!! The right people were present at the meeting, great presentations, Q&As and a great message delivered!

The specifics for the spring meeting will be decided at the WG meeting in Feb 2016.

It was discussed that it seems to be a stigma or belief that the CNSC meeting is more important for management than for CEDOs to attend. The goal is to break that stigma and get away from that thinking. CNSC staff encourages Industry members and CEDOs to go back and share the message with other CEDOs. It is important to make sure that the agenda contains topics of interest to CEDOs, so that they will engage and not feel that it may be a waste of their time. More case studies are needed at the meetings, everyone enjoys these presentations. It would be nice if CEDOs could get credit for annual refresher training or have it count towards their CEDO certification. F. Newbury thought this seemed very feasible and could be considered.

It has been discussed to try and video tape these meetings and have them available on-line. H. Rabski mentioned that he was approached by a Radiography company in the East and told that if he organized something at the CNSC office (local) for half a day, they would be very willing to send their CEDOs for a workshop. This is something that could maybe be tested out at the Regional offices (Calgary, Laval and Mississauga). Industry agreed but said there would have to a return on investment to make it work while taking time off. On-line would be ideal.

# Action – K. Mayer to send an email to communications to find out what the possibilities are for the CNSC and videotaping, etc. and report back at next IRWG meeting in Feb 2016.

Industry members mentioned that they share the information they receive at annual meetings with RSOs and assistant RSOs as training material. It is used as topics for annual training.

Potential topics of interest for future meetings or workshops were identified as follows:

- Incident Investigation Training (essentially basic walk through of the process documentation, reporting, importance of photographs, interviews, contributing causes, incident investigation and corrective actions) \*\* keep it very simple, but this may be able to be tied into the Events project.
- RSO roles and responsibilities (training expectations, obligations)
- Regulatory Updates
- Case Studies
- Barrier Control (signage, sweeping of area, communication, education)

To be discussed more at our WG meeting in Feb 2016.

### Summary of brainstorming

- Not interested waste of time for CEDOs to come to meetings (better to have it online or YouTube)
- Must recognize attendance for refresher training
- Would like to see short videos targeted towards CEDOs
- Pay them to attend, offer a free lunch, make it count as training hours
- Look at elements being covered in CNSC meetings could be used as ongoing learning

It was noted that the time allotted for the brainstorming sessions was short. However, in order to

accommodate all of the presentation topics, time had to be taken from somewhere and this is where the cut was made. The feedback was obtained just the same...

## Presentation on Safety Culture

P. MacNeil delivered an amazing presentation on safety culture and how it affects the work done in this industry. Although, no one gave any specific comments in front of the whole group; everyone loved the presentation and thought it was excellent (well reflected on the feedback forms). Some people just do not feel comfortable expressing their feedback aloud in front of the large group.

## 4) Client Expectations - Outreach

How to reach out to Industry and to the clients? It is important that the clients understand the importance of IR on their job site...

It would be nice to get a client to give a presentation at our annual meetings.

The sub-committee on client expectations will meet to prepare for the meetings.

The idea of developing a one-page poster (similar to what was done for Portable Gauge) was considered, however, it was stated that every organization has a poster on the bulletin boards and people stop looking...

A video would be a great idea (CIRSA tried a few years ago but never got the full buy in), there is a great deal of interest, however, it is a lot of work and continued support is required.

H. Rabski suggested to approach a community college to see if they are interested in putting a video together. The CNSC (SORO) office did this a few years ago and the outcome was really good. It could be a win-win situation. Does anyone have any contacts? The deadline has definitely passed for the spring meeting, however, it is a great initiative to work on in 2016 for the 2017 meeting.... Action – Can CIRSA check with community colleges and get back to IRWG?

A message needs to be sent to IRs and to clients. Some get it and some don't, therefore, an effort has to be made to reach out on both ends... The key message that was used on the CIRSA pamphlet could be used to build and tailor the required/intended message...

There is a need to approach some clients that are also licensees to see if they would be willing to present at our annual meeting (i.e. Syncrude and Suncor).

# Action – Karen to reach out to licensees to see if there is any interest and report back to IRWG at next meeting.

A presentation from a client at the annual meeting would help raise the awareness and the importance of education on both ends. It would be similar to the presentation from the NEB, not the same but they also

have a vested interest and it would help to send the right message that of our involvement in education.

It would be ideal to get the clients buy in, which overall, may make things better on the job sites.

## 5) PCP-09 Implementation & CEDO Scheme Committee

With the presentations given at the annual meeting by both NRCanada and CNSC PCD division on the implementation of PCP-09 and the current status, everyone now has a better understanding of the process. The deadlines were well explained. There recently have been some mix-ups with the tests as some people prepared for the PCP-09 exam but were not given the PCP-09 option and as a result still had to complete the old exam. C. Françoise agreed to look into the mix-ups and make sure the process is being followed.

## Action – K. Mayer to get update from C. Françoise on the status of this situation for next meeting.

It was discussed that there is a need to re-convene the CEDO scheme committee to review the questions as well as to add/remove questions accordingly.

Overall, PCP-09 needed to be implemented, there were some roadblocks initially, but now that PCP-09 is fully implemented; the metrics from the exams are required. It is likely that it will be May 2016, before the metrics are available. C. Françoise is in agreement for reconvening the scheme committee and PCD will take the lead on this. The contribution agreement with CSA does allow for regular review of the process. PCD will contact former members as it was noted that some have changed and potentially moved on. CNSC staff will report back on the progress at the next meeting.

It will be added as an ongoing action for the IRWG to monitor the progress of PCP-09 and update/checkin at each WG meeting.

It is also noted to provide an update on the progress of the PCP-09 metrics at the annual meeting.

# 6) QSA Equipment Updates

C. Auzenne provided updates on some interesting items that QSA Global is currently working on. He showed a picture of the new SCAR 1075 which is a Se-75 device with no depleted uranium, tungsten is used for shielding. It looks a lot like the 880; however, it is green in colour.

The advantages of using Se-75 are that it is a lower Energy and the radiation level is about 2 R/h per Ci vs. 5 R/h for Ir-192. It reduces the exposure zone, is a much thinner material. The collimator is in the front of the projector and uses a built-in collimator.

The SCAR technique is small controlled area radiography. The biggest application for this device is in Europe and Asia. There is some work ahead to get it approved in Canada and the U.S.

It will not replace Ir-192; it works well with computer generated or digital radiography. It will use the

same controls and guide tubes as 880s. They cannot be modified. If a collimator slides over the guide tube, it is ok however, if there is any direct contact with the source, it must be approved by the regulators for any after-market parts.

The exposure device weighs less than 20 pounds.

It has to be approved in US first, and then Canada will review assessment (since it was manufactured in the U.S.).

C. Auzenne also mentioned that QSA Global is looking at producing a new storage container (source changer) which would be a 3-hole container. It would mainly be used for emergency situations or for storage in vaults. It would hold three 100 Ci sources (Ir-192), it is not to be used for transport.

It would be very useful for servicing and source changes (which would allow training people to do their own source changes). It is not designed to be used for Co-60.

It was noted by Industry and CNSC staff that there is an inherent issue with servicing Co-60 cameras. The current practice is to send them away to a service provider that has a hot cell/facility. A large piece of equipment is required to shield a Co-60 source and is also very expensive. There is a real need for something to be available to shield Co-60 sources in the field.

C. Auzenne mentioned that the particular source changer that is being developed (3-hole container) is not being developed for Co-60. It was never the intent. However, the fact that people are having difficulty getting Co-60 cameras serviced and as a result are not doing it will be taken back as feedback to the development and engineering department. Some training will be given to IRSS in January 2016.

C. Auzenne briefed the working group on the latest updates on the GPRI (Global Threat Reduction Initiative) that involves installing GPSs in the exposure devices. The plan is to embed the GPS in the jacket as they cannot get it into the housing because of the shielding (depleted uranium). There have been some set-backs in the development, it has to be tested again for Type B since the weight increased and it is not ready to be rolled out yet.

With respect to the improved guide tubes (the quick disconnect guide tube connector), the QSA engineering department carried out some rather rigorous tests and these guide tubes did not pass well, therefore, they are back to working on the design again. T. Levey had a sample of the guide tube, it seemed to be more durable and cannot be unscrewed, however, the testing did not prove this durability so back to the drawing board. More field trials will be required in the future.

# Action – C. Auzenne to provide further updates on development at the next IRWG meeting in Feb 2016.

## 7) New initiatives 2015-2016 Path Forward

The focus this year is to have more manageable goals and that the focus will be on "Client Expectations".

For the past couple of years "Safety Culture" has been the theme, it was agreed that the theme for 2016 should be "Education" which covers all of the current identified initiatives.

T. Levey mentioned that in the early days of the IRWG, the focus was on reducing incidents, the dose rates and increasing compliance. All of these had a large link with communication, which will always be a priority. It was agreed, that overall, there has been significant improvement in these areas. And although, they will always remain a priority to keep an eye on, the focus seems to be related to Education for this year.

C. Moses said that themes can be very useful for annual meetings in order to focus the discussion and planning for the meetings, however, there should not be a specific theme for the actual WG.

H. Rabski brought up concerns with respect to recoveries. They are a really good learning opportunity for CNSC staff. That is to observe rather than participate. It would be nice if a system could be set up for notifications of such incidents (recovery) to be shared immediately with OID so that if a CNSC staff member is available they could go and observe.

There was some reticence noted by Industry as in the event of an incident, this may put added pressure or stress on the workers if they felt CNSC was observing. It is something to consider and Industry will discuss with CIRSA members.

Another challenge that is faced by the CNSC inspectors is unplanned and unannounced inspections. It has become very challenging to make them unannounced. It was noted that some IRs track their vehicles and the locations are available to the RSOs. H. Rabski asked if this information could be made available to the CNSC.

T. Levey and A. Brady both responded that if all licensees are subjected to this then possibly, if not they would feel targeted. H. Rabski said the intent was not to target licensees but rather to be able to truly carry out unannounced inspections. Currently, when they alert the dispatch or RSO, they tend to notify the workers that the CNSC is in the area, the idea is to avoid this. H. Rabski stated that by asking for this type of information, it would provide good Intel to inspectors to try and keep inspections unannounced. Again, there was reticence from industry, it was noted that this would have to be discussed with senior management in their companies and likely justify the benefit. Management would want to know if everyone is being subjected to this and if there is a regulatory requirement for this. Industry agreed to bring it up with management in their companies and provide some feedback to H. Rabski on this subject.

The annual meetings were further discussed and this will be the focus for the Feb 2016 WG meeting. Since, it was noted that it was nice to have someone at this year's meeting from one of the learning institutions (NAIT), this lead to a good discussion around training providers and their presence at the meetings. It would be good to reach out to them to solicit a presentation for the next meeting. The main training providers have been identified as CINDE, NAIT, SAIT, and College of the North Atlantic, World Spec, Canadian Welding Bureau (CWB) and Keyano College in Fort McMurray.

Action - Karen to coordinate with PCD to solicit feedback from new CEDOs as well as obtain a list

# of vocational trainers for next meeting.

### 8) Dose Statistics

It was mentioned that it would be nice to get the dose information from the NDR.

# Action - Karen to email M. Rickard (CNSC) to obtain dose results for the group.

## 9) Next Meeting

Next meeting: week of February 8<sup>th</sup>, 2016. Actual meeting will take place on Wednesday, February 10<sup>th</sup>, 2016 in Mississauga (video conferencing will be available from the Calgary office).

The meeting concluded at 3:00 PM.

Radiography Working Group - ACTION LIST			
RWG Item #	Description	Assigned Person(s)	Status or Due Date
15WGM1.1	Bring a recorder to future meetings.	K. Mayer	Ongoing
15WGM1.2	Follow up with Regulatory Docs division for an update on the status of REGDOC 2.5.5 and communicate the status to the working group	K. Mayer	Feb. 2016
15WGM1.4	Verify turnaround time (current delays) for certification and acknowledgement and permissions to write the exam. Follow up on transition between old and new process.	H. Rabski	Closed
15WGM1.5	Arrange initial sub-group meeting for client education task with L. Simoneau, P. MacNeil and T. Levey	K. Mayer	Closed
15WGM1.6	Put a direct web link to SSTS on the Industrial Radiography page	H. Rabski	Feb. 2016
15WGM2.1	Provide an update from PCD division on the mix-ups at colleges with CEDO exams as well as status for PCP-09 scheme committee reconvening	K. Mayer	Feb. 2016
15WGM2.2	Ensure IRWG members are invited to Commission meeting for industrial report presentation	K. Mayer/ C. Moses	Ongoing
15WGM2.3	Check with Coms division at CNSC for options for videotaping, etc.	K. Mayer	Feb. 2016
15WGM2.4	Industry (CIRSA) to check with community colleges for possible contacts for video opportunities.	A. Brady	April 2016
15WGM2.5	Reach out to licensees (Syncrude and Suncor) to see if interest in presentation at annual meeting	K. Mayer	Feb. 2016
15WGM2.6	Provide further updates on QSA equipment	C. Auzenne	Feb. 2016
15WGM2.7	Coordinate with PCD to solicit feedback from CEDOs and obtain a list of vocational trainers, and dose results for the group from NDR	K. Mayer	Feb. 2016