

RD/GD-210, *Maintenance Programs for Nuclear Power Plants/ Programmes d'entretien des centrales nucléaires*

Comments received from public consultation / Commentaires reçus dans le cadre du processus de consultation

Comments received:

- during public consultation (Jan. 6 to March 9, 2012): 42 comments from four (4) reviewers
- during “feedback on the comments received” (March 19 to April 10, 2012): five (5) comments from one reviewer

Commentaires reçus :

- lors de la période de consultation (du 6 janvier au 9 mars 2012) : 42 commentaires reçus de quatre (4) examinateurs
- lors de la période d’observations sur les commentaires reçus (du 19 mars au 10 avril, 2012) : cinq (5) commentaires reçus d’un examinateur

Comments received during public consultation / Commentaires reçus lors de la période de consultation :

Note: some comments (e.g., #17) specifically mention “OPG”; this detail was checked with Bruce Power and Hydro-Québec. In summary, comments are posted as submitted, but ones that state “OPG” should be read as “industry”.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
1	General	Rodger Bruiners	Power Reactor Division, National Nuclear Regulator, South Africa	Industry	This is a well written document that captures almost all the building blocks associated with the establishment and implementation of an effective maintenance program. We are currently in the process of revisiting our Regulatory standards and the structure and contents of this document will certainly be used as a benchmark.	Thank you.
2	Table of contents, body of text	Consolidated industry comments: - Maury Burton, Regulatory Affairs - Claude Gélinas, Chef Centrale - Alan Lapp, Manager Maintenance Programs	Bruce Power Hydro-Québec OPG	Industry	There is not a consistent flow through the document in regards from Element to Requirement to Objectives. Does not indicate the objectives under the elements. Update to show Objectives. Remove the word “General” from the titles. Ensure consistency in layout throughout the document. This includes ensuring each element has the same format with objectives and then criteria.	No technical change on the content, but some format adjustments to improve the flow.

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3	General	Rodger Bruiners	Power Reactor Division, National Nuclear Regulator, South Africa	Industry	<p>Question with respect to the contents of a Maintenance Basis:</p> <p>Does the CNSC have any reservations about the use of the INPO developed AP-913 standard and what type of Regulatory review is conducted prior to its implementation.</p>	<p>No change to text. The licensee has the right to choose their approach to meet the requirements in this document. CNSC recognizes that documents prepared by INPO reflect industry best practice and has no reservations about the use of AP-913 and other INPO documents but the licensee must ensure that their program meets the requirements of RD/GD-210. CNSC has a maintenance oversight strategy to continuously monitor the licensee's program performance.</p>
4	General	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>The use of several regulatory documents to specify expectations or requirements of the CNSC on the same or similar subjects concerning the reliability program generates inconsistency and confusion and may represent a regulatory risk.</p> <p>For example, RD220 Section 3.4.4.2 on Surveillance provides criteria, however key criteria also exist in RD98 section 3.6.1, second paragraph.</p> <p>[suggested revisions:]</p> <ul style="list-style-type: none"> - Clarify the requirements and scope which concern each document: S-99 (or RD-99.1 and GD-99.1), RD/GD-98, S-210 (RD/GD-210) and S-294. - Avoid writing or repeating requirements in the RD/GD-210 which concern the other regulatory documents of the CCSN. - Ensure coherence in the requirements, terms 	<p>Interrelationships between the various CNSC regulatory documents are normal. CNSC regulatory documents are complementary but independent; the requirements and scope of each regulatory document is clearly defined in that regulatory document. For details on RD-99.1, refer to RD-99.1; on RD-98, refer to RD-98; etc.</p> <p>As stated in the Scope, this document does not override requirements provided by other codes and standards. RD/GD-210 presents the requirements for a maintenance program at a nuclear power plant (if RD/GD-210 is referenced in the licence conditions handbook (LCH)); RD/GD-98 deals with the requirements for reliability programs; other regulatory documents provide information on other topics.</p> <p>Terms have been reviewed to ensure coherence in the requirements, terms,</p>

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					and definitions between each document	and definitions between each document. CNSC staff have reviewed the various documents and are of the opinion there is no conflict between them.
5	Général, version française de la norme	Claude Gélinas, Chef Centrale	Hydro-Québec	Industry	<p>Le document RD/GD-98 réfère au RD/GD-210 (voir lettre de Hydro-Québec à CCSN sur ce document). Dû à l'interrelation et la complémentarité entre le RD/GD-210 et RD/GD-98, il n'est pas clair (partage des exigences) d'identifier ce qui relève de la portée de chacun de ces documents. Le RD/GD-210 et le RD/GD-98 sont actuellement en processus de commentaires. Il faut s'assurer que les documents qui en résulteront seront complets et cohérents.</p> <p>Hydro-Québec désire pouvoir faire des commentaires supplémentaires si requis sur le lorsque les commentaires du RD/GD-98 et du RD/GD-210 seront adressés.</p>	<p>Voir le commentaire n° 4 ci-dessus.</p> <p>Le processus d'examen des documents d'application de la réglementation de la CCSN est rigoureux et a été mis à l'épreuve. Les commentaires sont bien accueillis en tout temps; cependant, le processus d'examen en plusieurs étapes de la « consultation publique », suivie des « observations sur les commentaires reçus », suivies du nouvel « examen par les parties intéressées », qui mènent à une réunion de la Commission aux fins d'approbation de la publication, constitue un processus approprié qui permet à toutes les parties intéressées de présenter officiellement des commentaires.</p>
6	Général, version française de la norme	Claude Gélinas, Chef Centrale	Hydro-Québec	Industry	<p>En règle générale et pour l'ensemble de la norme, le texte de la version française semble être une traduction libre de l'anglais non vérifiée du point de vue technique. Le résultat engendre de nombreuses confusions et incompréhensions des éléments du document. Il est alors requis de retourner dans le document original en anglais pour comprendre le texte.</p> <p>Par exemple et sans s'y limiter :</p> <p>- Préface, 2^e paragraphe : « Le type et la fréquence d'activités d'entretien réalisés à chaque SSC correspond à l'importance de sa</p>	<p>Le texte français a été traduit par le Bureau de la traduction (un service de traduction professionnel), puis vérifié à l'interne. Toutefois, le génie nucléaire a un vocabulaire technique très précis et il se peut que les traducteurs n'aient pas utilisé la terminologie française propre au génie nucléaire qui est habituellement utilisée par l'industrie.</p> <p>Si Hydro-Québec est en mesure de fournir l'expertise d'un vérificateur technique pouvant examiner le texte français avant que le document ne soit</p>

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					<p><u>sûreté</u>, à la performance exigée et à la... »</p> <ul style="list-style-type: none"> - Chapitre 3.1.2.1 item 10 : « la fiabilité des cibles des SSC revêtant une importance sur le plan de la sûreté [1] » alors que le texte de référence, le S-98, indique « les objectifs de fiabilité des systèmes importants pour la sûreté » - Chapitre 3.2.2.2.4 item 1 : « pour des tâches multidisciplinaires, un groupe de travail responsable est déterminé tel qu'exigé » alors que la version anglaise stipule « ...is identified, as required » - Chapitre 3.5.4.2.2 item 4 : « la planification des activités d'entretien tient compte du principe ALARA et des pratiques habituelles en matière de sûreté » la version anglaise indique « ...and conventional safety practices » le terme « sûreté » fait normalement référence à la sûreté nucléaire et non à la sécurité conventionnelle ou sécurité industrielle <p>Lorsque le document sera révisé, Hydro-Québec désire avoir la possibilité de refaire ses commentaires sur la version améliorée.</p>	présenté à la Commission, la CCSN se fera un plaisir d'examiner les commentaires sur le texte français.
7	Général, version française de la norme	Claude Gélinas, Chef Centrale	Hydro-Québec	Industry	<p>La terminologie utilisée est difficilement compréhensible et ne représente pas les termes usuels. Par exemple et sans s'y limiter : Les matériels consommables, le personnel ingénieral, les breffages avant l'exécution.</p> <p>Lorsque le document sera révisé, Hydro-Québec désire avoir la possibilité de refaire ses commentaires sur la version améliorée.</p>	Voir la réponse au commentaire n° 6 ci-dessus.

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8	Preface	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	Should have a statement for RD/GD 210 in relation to S-210. This RD/GD 210 replaces the S210	It is standard procedure that a revision of a document replaces all previous versions of that document. The publishing history on the inside front cover clearly shows that RD/GD-210 was preceded by S-210. In addition to these standard publishing tools, the following text has been added to the Preface: “RD/GD-210 replaces S-210, <i>Maintenance Programs for Nuclear Power Plants</i> . It reaffirms the existing requirements found in that document, and adds information and guidance on how the requirements may be met.”
9	3.1.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.1.1 Maintenance strategy have its basis in the approved plant design and safety analysis: Does the Maintenance Strategy have to be documented in the Safety Analysis? Change wording to “Maintenance Strategy is based on the approved plant design and safety analysis.”	Text revised for clarity. The purpose of the maintenance program is to ensure that SSCs can function as per design, and therefore a maintenance strategy shall be based on must have its basis in the approved plant design and safety analysis.
10	3.1.2.3	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	Program Feedback: <ul style="list-style-type: none"> Unclear title of “Program Feedback”. Change title to “Program Improvement through feedback” “after each maintenance activity”. This is not the normal case to submit feedback for every task. Change the wording to “after major maintenance activities or take out the word each. Again the intent is to provide feedback but not necessarily on each task in the work order 	1. Changed title to “Feedback from maintenance activities”. 2. Modified the 1 st item to match the industry practices: <ul style="list-style-type: none"> a process is in place to capture lessons learned and operating experience after each maintenance activity Intent is to have a process in place that allows workers to provide feedback, for

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						<p>example, on as-found conditions. This is typically done at the work-order level.</p> <p>Also, reworded point #4, and moved point #5 to 3.5.1.2.</p>
11	3.1.2.3 bullet 4	Rodger Bruiners	Power Reactor Division, National Nuclear Regulator, South Africa	Industry	<p>“there is a process for capturing hazards encountered during the maintenance activity (i.e. radiological hazards)”</p> <p>Comment: hazards encountered should be noted during the post work review phase for work practice improvement purposes and should include all hazards identified and not only the noted radiological ones. Include for example also ergonomical and physical hazards.</p>	Text modified for clarity; however, risks and hazards are well addressed in section 3.5.4.2.2. The radiological hazard given here is just one example, and is not intended to be exhaustive.
12	3.2.1.(6)	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p><i>3.2.1 (6) there is a process for feeding back the results of maintenance activities to design and engineering:</i></p> <p>Design is part of engineering. Typically Components or System Engineers review this data and involve design as required. It should be sufficient to just indicate engineering.</p> <p>[suggestion – change to:] There is a process for feeding back the results of maintenance activities to engineering.</p>	<p>Text has been revised for clarity. Change 3.2.1 (6 (now 5)) to.</p> <p>there is a process for feeding back the results of maintenance activities to design and engineering</p> <p>[Note: old point #5 has been moved to 3.5.1.2]</p>
13	3.2.2.2.1 Maintenance Structure	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>(1) Senior Management “understands” -- Change “understands” to “demonstrates”</p> <p>(3) descriptions are “available” -- Change “available” to “documented”</p>	<p>Agreed in principle. Changed to “demonstrates an understanding of its responsibility for...”.</p> <p>Agreed.</p>

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14	3.2.2.2.2	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.2.2.2.2 Interfaces with other groups are defined...:</p> <p>This is difficult to document in all aspects of Maintenance Activities. Delete section or change to “Where maintenance activities involve supporting work groups, they are documented.</p>	<p>Text has been revised for clarity; the first bullet now states:</p> <p>“interfaces with other groups (e.g., engineering, operation, radiation protection) are defined where maintenance activities involve supporting work groups”</p>
15	3.2.2.2.3	Rodger Bruiners	Power Reactor Division, National Nuclear Regulator, South Africa	Industry	<p>“Objective: Engineering and technical support”</p> <p>General comment: We have frequently noted during regulatory inspections that maintenance personnel will repair defective components without Engineering involvement with the same defect re-appearing after the same running period. Immediate investigation by Engineering during the initial failure, aid in identifying issues such as incorrect work practices, spares anomalies, system related problems, etc. We have thus instructed our licensee to ensure that critical maintenance procedures are updated with hold points for Engineering evaluations prior to repairs being undertaken. The paragraph in the RDGD does not indicate immediate Engineering investigation and its use should perhaps be considered.</p>	<p>Agree with the comment; however, engineering involvement in equipment failure and corrective maintenance is covered by section 3.3.3.2.1. New bullet point added to 3.2.3.2.3 (was 3.2.2.2.3):</p> <ul style="list-style-type: none"> • guidance is available to maintenance personnel for determining if technical support is needed
16	3.2.2.2.4	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.2.2.2.4 Interfaces with trades groups</p> <p>(1) Lead work group identified. Multifunction groups may not have a lead work group. A supervisor may oversee a multifunction group with no lead group.</p> <p>Suggestion: Delete criteria 1. Criteria 3 covers this area.</p>	<p>Text revised. (now 3.2.3.2.4)</p> <ul style="list-style-type: none"> • for multi-disciplinary jobs, a lead person work group is identified, as required

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17	3.2.3.2.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.2.3.2.1 Program governance:</p> <p>(1) “Maintenance Policy”. OPG uses “Programs” or “Standards”. -- Change “policy” to “programs or standards”</p> <p>(4) “Objectives” -- change “maintenance program objectives” to “maintenance programs”</p>	<p>Text has been revised for clarity that “policy” refers to a high-level policy statement, and that “objectives” are to be achieved by the maintenance program:</p> <ul style="list-style-type: none"> - point 1 has been revised to add “high-level” [maintenance policy] “statement” - point 4 has been revised for clarity
18	3.2.4	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.2.4 Training:</p> <p>Training section should follow the organizational section. Keep the people sections together.</p> <p>Move training section after the organizational section.</p>	<p>Agree – text has been reordered as follows:</p> <ul style="list-style-type: none"> - 3.2.2 and 3.2.3 have been exchanged - 3.2.5 and 3.2.6 have been exchanged (see comment # 24, below)
19	3.2.4.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.2.4.1 Training Qualifications of workers:</p> <p>Paragraph (3) is a repeat of the objective 3.2.4.2.4 (1) Delete.</p> <p>Last Paragraph:</p> <ul style="list-style-type: none"> - Special pre job briefs is not considered training and not documented in the training system. High Risk tasks are documented in the Job Task Analysis for OPG. - [suggested rewrite:] Prior to performing tasks with higher risk to plant and personnel safety, maintenance personnel shall receive additional training or pre job briefing commensurate with the activity. 	<ol style="list-style-type: none"> 1. 1st item in 3.2.4.2.4. has been revised to request a process 2. Last paragraph of section 3.2.4.1 was revised to <p>Prior to performing tasks special jobs with higher risk to plant and personnel safety, maintenance personnel shall receive a pre-job briefing commensurate with the activity or additional training up to a full scale mock-up. ranging from a special job briefing up to full scale mock-up.</p>
20	3.2.4.2.4	Consolidated industry comments (see	Bruce Power, Hydro-Québec OPG	Industry	<p>3.2.4.2.4 Training on other plant programs:</p> <p>(1) is a repeat of the requirements in 3.2.4.1 Work Control training is not given to all</p>	<p>1st item in 3.2.4.2.4. has been revised to request a process (see comment #19)</p> <p>No change. Not all maintenance staff</p>

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		comment 2)			Maintenance staff at OPG. Only staff that are involved in the process receive any training. Access Control Training is given to advanced radiation qualifications only. Delete “Work Control” and “Access Control”	need to be trained to the same level on work control and access control, but all maintenance staff shall have a minimum training <u>commensurate with their responsibilities</u> , as stated in 3.2.4.1. For example, all maintenance staff shall be trained to understand how the control of work and facility access is related to their safety and the safety of other workers (equipment isolation verification, personal protective equipment, radiation protection).
21	3.2.4.2.5	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.2.4.2.5 Special Jobs: This section is a duplicate of 3.2.4.1 and 3.2.4.2.1 (7). “Special Jobs” is not a term used in OPG. OPG uses “Critical tasks” - Change term “special jobs” to critical tasks. - Change wording of 1 to: Prior to performing tasks with higher risk to plant and personnel safety, maintenance personnel shall receive additional training or pre job briefing commensurate with the activity. - Move (2) into 3.2.4.2.4	<ol style="list-style-type: none"> 1. Changed “special jobs” to “tasks with high risk”, which is more generic to cover the different terminologies adopted by different licensees. 2. Last paragraph of section 3.2.4.1 was revised to (see comment #19): Prior to performing tasks special jobs with higher risk to plant and personnel safety, maintenance personnel shall receive a pre-job briefing commensurate with the activity or additional training up to a full scale mock-up. ranging from a special job briefing up to full scale mock up. 3. Change the 1st item in section 3.2.4.2.5 to “for tasks with high risk, additional training is identified and implemented effectively prior to

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						execution of the job” 4. merged sections 3.2.4.2.4 and 3.2.4.2.5 to 2.2.4.2.4 <i>Training on other plant programs and tasks with high risk</i>
22	3.2.5.2	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.2.5.2 (8) (9) Maintenance Facilities: These items deal with MTE. These MTE lines should be moved to the Instrument Calibration section.	Agreed. Move (8) and (9) in [WAS section 3.2.5.2 NOW section 3.2.6.2] to section 3.4.4.2.3, Instrumentation calibration.
23	3.2.5.2, bullet 9	Rodger Bruiners	Power Reactor Division, National Nuclear Regulator, South Africa	Industry	“test equipment that is out of tolerance or overdue for calibration is removed from service” Comment: The impact of the out of tolerance test equipment is to be established by Engineering for areas where it has been used to determine whether corrective action needs to be taken as per Code requirements.	Text revised and moved to section 3.4.3.2.4, Instrumentation calibration. test equipment that is out of tolerance or overdue for calibration is removed from service, and the effect is evaluated to determine whether corrective action needs to be taken.
24	3.2.6	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.2.6 Flow of information: Move this section with Organizational structure and training. Follow the flow of “Process, People, Plant”	Exchange section 3.2.6 and 3.2.5 (see also comment #18).
25	3.3.3.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.3.3.1 Time-based preventive maintenance should not be scheduled just prior to performance or functional testing as this may mask equipment degradation. However, if the conditions dictate, other preventive maintenance activities should be performed as appropriate:	Text revised [added “and change the...” and deleted “however...”] Time-based preventive maintenance should not be scheduled just prior to performance or functional testing as this may mask equipment degradation and

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					<p>The last sentence is vague. If the intention is that maintenance should be performed if needed then it should state that. An option to deal with this situation is to complete a functional test before the PM.</p> <p>[suggested revision:] Time-based preventive maintenance should not be scheduled just prior to performance or functional testing as this may mask equipment degradation. However, if there is justification for completing the preventative maintenance at this time then consideration should be given to completing a functional test before the maintenance if practical.</p>	<p>change the as-found condition. However, if the conditions dictate, other preventive maintenance activities may be performed as appropriate.</p> <p>Also added the following item to the end of section 3.3.2.2.2 [was 3.3.3.1]</p> <p>3. certain maintenance activities could be done before the functional testing, but only for the purpose of personnel protection or equipment preservation; this arrangement should follow a controlled process to evaluate the possibility and its potential impact of changing as-found conditions</p>
26	3.3.3.1	Rodger Bruiners	Power Reactor Division, National Nuclear Regulator, South Africa	Industry	<p><i>Time-based preventive maintenance should not be scheduled just prior to performance of functional testing as this may mask equipment degradation. However, if conditions dictate, other preventive maintenance activities should be performed as appropriate”</i></p> <p>Comment: The second sentence, although well intended, contradicts the first one and implementation thereof may lead to an ineffective monitoring program. A configured process should be followed for evaluation of the impact of maintenance prior to functional testing on the monitoring program and maintenance basis expectations and the Regulatory body should be approached for concurrence.</p>	Thank you. Text revised as in comment 25.

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27	3.3.3.1 [now 3.3.2.1]	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	Delete: These activities.... Industry standards. Statement is superfluous.	Text has been revised for clarity.
28	3.3.4.2.1 [now 3.3.3.2.1]	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p><i>3.3.4.2.1 Objective: Failure response -- For corrective maintenance activities, while keeping in mind that the processes include evaluating the impact of failed equipment and prioritizing the repair work with respect to ongoing maintenance activities, licensees should demonstrate that the following criteria have been taken into account:</i></p> <p>This requirement as written does not exclude run to failure strategies. The run to failure strategy must be recognized as distinct or it is meaningless.</p> <p>[suggested revision:] 3.3.4.2.1 Objective: Failure response -- For corrective maintenance activities, while keeping in mind that the processes include evaluating the impact of failed equipment and prioritizing the repair work with respect to ongoing maintenance activities, licensees should demonstrate that the following criteria have been taken into account with the exception of equipment that has a run to failure strategy.</p>	No change to text. The criteria under this section allow a graded approach to failure analysis commensurate with the safety significance. It is important that the reason for failure is understood and is consistent with the adopted maintenance strategy, even for run-to-failure equipment.
29	3.4	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p><i>3.4 Element Four: SSC Monitoring:</i></p> <p>This entire section is fine from the perspective of the objectives and criteria, however there is no recognition of a graded approach based on criteria such as safety significance, reliability etc. The degree of surveillance on ECI SSC's is much different than that of domestic water. The entire section needs to be based on</p>	<p>Text has been revised by adding the following sentence to the end of 1st paragraph of section 3.4.1.</p> <p>The degree of SSC monitoring shall be commensurate with the safety significance of the SSC.</p>

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					<p>“commensurate with....)</p> <p>[suggested revision:] 3.4 Element Four: SSC Monitoring 3.4.1 General requirements for SSC monitoring The licensee shall establish baseline criteria against which the function and performance of SSCs can be measured. These criteria shall include reliability, availability, function and performance requirements and assumptions used in the plant design and safety analysis. The degree of SSC Monitoring shall be commensurate with the relative importance of the SSC. The licensee shall include processes and procedures for evaluating whether or not SSCs continue to perform within the baseline criteria and for initiating corrective actions. These processes and procedures shall include condition monitoring, surveillance and testing.</p>	
30	3.4.3.2.2	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.4.3.2.2 <i>Effective monitoring:</i></p> <p>This section is a continuation of the previous. Add this section to the previous and delete the title.</p>	Sections have been merged and text has been revised for clarity.
31	3.4.4	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.4.4 <i>Surveillance:</i></p> <p>This is Operator/engineer focused. This is not a Maintenance activity. Delete</p>	No change to text. The maintenance definition used in this document (see glossary) is very broad and does not only cover the maintenance activities conducted by maintenance staff. Surveillance is a major contributor to the plant predictive maintenance program and is important in assuring awareness of actual equipment condition. Surveillance has been added to the Scope of this document. See also comment C under “feedback for

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						comments”, below.
32	3.4.5.2.2 [now 3.4.6.2.2]	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.4.5.2.2 Test Equipment: This is more around instrument calibration and not the proper fit for this section. Move to 3.4.3.2.4.	No change to text. It is related to instrument calibration, but it only refers to the instrumentation and test equipment used in the test program.
33	3.5.4.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.4.1 Work Planning and scheduling: 1. Pre Job and Post Job briefings are conducted by the execution and not part of the planning process. Remove second sentence of Paragraph 3 2. The FME description falls better under guidance of Maintenance work. Also section 3.5.4.2.4 should move. Move paragraph 4 and 3.5.4.2.4 to 3.5.2	1. Changed the title to “Work planning, scheduling and execution” and changed the following text from: “Coordination of work groups shall be incorporated into work planning and scheduling. Where appropriate, pre- and post-job briefings shall be included.” To “Coordination of work groups shall be incorporated into work planning and scheduling. Where appropriate, job briefing documentation shall be prepared during work planning and scheduling. For work execution, where appropriate, pre- and post-job briefings shall be conducted. Maintenance work shall be executed in accordance with the approved work package.” 2. Kept as a requirement, but moved FME requirements to “maintenance work” section (section 3.5.1.1). The guidance information has been moved to bullet point 6 in section 3.5.1.2.

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34	3.5.4.2.2 [now 3.5.3.2.2]	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.4.2.2 Risk Awareness: Risk Awareness to OPG means something different that's what is listed in this section. Use a different descriptor or title to avoid confusion.	Changed the title to "Human performance tools"; also reorganized the list for clarity.
35	3.5.5	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.5 Outage: Is the intent to include all Work Management in the Maintenance document? [suggested revision:] Change Outage Management to outage Activities.	Title changed to "outage maintenance activities".
36	3.5.6	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.6 Maintenance Procedures: Maintenance Procedures should be part of 3.2.3.2 Policies, processes, and procedures. Move Maintenance Procedures to 3.2.3.2.	No change. Section 3.2.3 (now moved to section 3.2.2) is more generic and oriented to a high level maintenance program. Section 3.5.5 is more detailed and is oriented to specific maintenance work and activities.
37	3.5.6.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.6.1 Hazards: The issue of hazards is identified in OHSAs as the regulatory body. Remove Paragraph 4.	No change. Failure to identify conventional hazards could also have nuclear safety concerns and issues. See also feedback comment #E.
38	3.5.6.2.6 [now 3.5.5.2.6]	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.6.2.6 (2) Procedure Turnover: Does not require signature for all completed steps in a procedure. Change wording to "all completed steps are adequately marked".	Removed the text "with signature".
39	3.5.7.2.2 [now 3.5.6.2.2]	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	3.5.7.2.2 Maintenance Activity Assessments: OPG uses Verification instead of Assessments. The use of the word assessment may be confused with assessing the work. Change "Assessments" to "Verifications or evaluation".	Changed "assessment" to "evaluation".

	Section	Name	Organization	Organization Type	Comment	CNSC Response
40	3.6.2.1	Maury Burton, Regulatory Affairs	Bruce Power	Industry	<p>3.6.2.1 (4) Storage Requirements:</p> <p>Change to “spare parts and tools are stored in the facilities taking into consideration FME and environmental conditions.”</p>	<p>Added new bullet as follows:</p> <p>spare parts and tools are stored in the facilities, taking foreign material exclusion into account</p>
41	3.7.1	Consolidated industry comments (see comment 2)	Bruce Power, Hydro-Québec OPG	Industry	<p>3.7.1 Program Review:</p> <p>Continuous process for program review – what does this mean?</p> <p>[suggested revision:] Delete ‘continuous’, replace with regular or periodic. The objective is ‘continuous’ improvement.</p>	<p>No change. Continuous here means an ongoing process. Regular and periodic cannot fully cover this meaning.</p>
42	Lexique	Claude Gélinas, Chef Centrale	Hydro-Québec	Industry	<p>Les définitions contenues dans le lexique du RD/GD-210 ne sont pas cohérentes avec les définitions des même termes inclus dans les autres documents d’application de la réglementation, entre-autre les documents RD-334 et le projet de documetn RD/GD-98.</p> <p>Par exemple et sans s’y limiter : La définition de « défaillance » et « entretien » est différente pour le même terme dans les 3 documents, soit RD/GD-210, RD-334 et RD/GD-98. De plus, la définition de « essai », « structure, système et composants (SSC) » est différente pour le même terme dans les 2 documents, soit RD/GD-210 et le RD-334.</p> <p>Harmoniser les définitions entre les différents documents d’application de la réglementation émis par la CCSN.</p>	<p>Aucun changement apporté au texte. Ces documents, entre autres (notamment RD-337), ont été examinés. Les entrées des lexiques des documents RD/GD-210, RD-334 et RD/GD-98 sont cohérentes.</p> <p>Il se peut, à l’étape de l’ébauche, qu’il y ait eu des incohérences entre les entrées des lexiques de certains documents, Toutefois, il semble que les incohérences aient été révisées et que les entrées des lexiques soient maintenant cohérentes.</p>

Summary: 42 comments from 4 reviewers.

End of table for consultation

Comments received during « feedback on the comments received » / Commentaires reçus lors de la période d'observations sur les commentaires reçus :

	Section	Name	Organization	Organization Type	Comment	CNSC Response
A	Comment #11	George Aunger	Candu Energy Inc.	Industry	<p>Personnel should always receive a PJB from their Supervisor, especially with hazardous work. Training should be considered as an extra requirement, if warranted. I suggest the following wording:</p> <p>Personnel shall receive training, in addition to the regular pre-job briefing, if the complexity of task and consequence of error warrants it.</p>	No change. The proposed requirement has been captured by the revisions to the last paragraph of section 3.2.4.1.
B	Comment #22	George Aunger	Candu Energy Inc.	Industry	I think there should still be some reference to, with regards to Maintenance Facilities, the requirements for a MTE shop with a controlled environment that allows for precision repair and calibration of MTE.	<p>Agreed. Added one more bullet point:</p> <p>Facilities where measuring and test equipment is located and calibrated have a controlled environment condition to facilitate the precise repair and calibration of the equipment</p>
C	Comment #31	George Aunger	Candu Energy Inc.	Industry	Although Surveillance is traditionally a term in reference to Engineering observations, it should not be restricted to Operators and Engineers. Surveillance may also be part of a Maintenance strategy, specifically with current practice where we are moving away from unnecessary intrusive maintenance and more to an on-line condition monitoring, surveillance and inspections.	Agreed. See also response to comment #31.

	Section	Name	Organization	Organization Type	Comment	CNSC Response
D	Comment #33	George Aunger	Candu Energy Inc.	Industry	Some of the Pre-job briefing material, such as internal and external OPEX, and FME preparation, is best done at the Maintenance Planning stage rather than at the time of work execution. This pre-planning will better equip workers in the field in accomplishing their tasks productively and event free. This does not remove the responsibility from the Supervisor and worker of the task, but helps them, especially considering their limited time frame and available resources at the start of work.	Agreed. The title of this section has changed to include work execution, and text has been revised.
E	Comment #37	George Aunger	Candu Energy Inc.	Industry	I believe that Procedures should always include specific hazards, and potential barriers, protective equipment, compensatory actions, etc., where known and where helpful. Some guidance would be required to ensure the focus on hazards is not minimized due to an exhaustive list of some that may be unrealistic. We should not limit ourselves to OHSAs documented hazards. OHSAs do not specifically cover all that are applicable to Maintenance in a Nuclear Plant.	Agreed. See also response to comment #37.

Summary: five (5) feedback comments from 1 reviewer.
End of table for feedback