

**From:** [Consultation](#)  
**To:** [Belyea, Sean](#);  
**Subject:** FW: OPG Comments for the Public Consultation on draft REGDOC-2.3.2, Accident Management  
**Date:** Monday, October 21, 2013 6:08:33 AM  
**Attachments:** [OPG Comments on REGDOC-2.3.2 Accident Management.docx](#)  
[OPG Comments on REGDOC-2.3.2 Accident Management.pdf](#)  
[Draft REGDOC-2.3.2 Appendix A Fig 2 Revised.ppt](#)  
[Draft REGDOC-2.3.2 Appendix A Fig 2 Revised.pdf](#)  
[Attachment to REGDOC 2.3.2 OPG Comments with Definitions Applied.doc](#)  
[Attachment to REGDOC 2 3 2 OPG Comments with Definitions Applied.pdf](#)

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**From:** MACEACHERON R J -NUCLEAR [mailto:r.maceacheron@opg.com]  
**Sent:** Thursday, October 17, 2013 1:47 PM  
**To:** Dallaire, Mark; Rzentkowski, Greg; Santini, Miguel; Rinfret, François; Consultation  
**Cc:** ROMAGNINO John -NUCLEAR; KNUTSON Andrea -NUCLEAR; MARCZAK John -NUCLEAR; DERMARKAR Fred -NUCLEAR; O'NEILL Micheal -NUCLEAR; PARLATAN Yuksel -NUCLEAR; VECCHIARELLI Jack -NUCLEAR; MITCHELL Leslie -NUCLEAR; HARRIS Elaine -NUCLEAR; THURSTON Anna -REL EST SRVC; CAMERON Joe -PEOPLE&CULTR; URJAN Romeo -PEOPLE&CULTR; LEMKAY Kevin -PEOPLE&CULTR; HARRIS Stuart -NUCLEAR; 'Keith Garel'; 'jeff.weed@candu.org'; LORENCEZ Carlos -NUCLEAR; KNUTSON Mark -NUCLEAR  
**Subject:** OPG Comments for the Public Consultation on draft REGDOC-2.3.2, Accident Management  
**Importance:** High

CD#:  
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00531-  
06292

Dear Mr. Dallaire,

The purpose of this e-mail is to provide a written submission of OPG comments for the public consultation on draft REGDOC-2.3.2, *Accident Management*.

OPG has met with industry partners, i.e. Bruce Power, New Brunswick Power, AECL and CANDU Energy Inc., to discuss issues related to draft REGDOC-2.3.2. The meeting participants will each be providing a separate submission to the CNSC and while the comments provided are generally similar, there may be some differences. Furthermore, while all items should be dispositioned, items identified as "Major Comments" are of particular concern to the nuclear industry and should be given more weight.

Please find attached below attachments listing OPG comments on REGDOC-2.3.2. To assist CNSC dispositioning, the attachments have been provided in both PDF and WORD formats.

1. OPG comments on draft REGDOC-2.3.2:
2. Revised Figure 2 of Appendix A, as noted in Comment 8 of the OPG comments above:
3. Attachment to OPG Comments on draft REGDOC-2.3.2 – this is a focused set of additional OPG comments focused on the use of the terms "Accident Management" and "Accident Control":

If you have any questions regarding this submission, please contact the undersigned.

Richard MacEacheron, P.Eng

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### OPG comments on REGDOC-2.3.2, Accident Management

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
1	General	<b>Major</b> - The REGDOC needs to recognize the IAMPs are already built into licensees existing Management Systems Manuals (MSMs). In addition, recognition that existing programs/documents will be maintained or revised to meet this REGDOC.	Suggest renaming REGDOC “Accident Control and Management – ACM”. Include a note to the effect that implementing procedures, e.g., programs and role titles may not be identical at each facility.	<b>Major</b>	There is a danger that it can be interpreted that Licensees will be required to develop a standalone IAMP document containing all of the requirements defined in this REGDOC. This is contrary to the CSA N286 philosophy of an integrated Management System. Development and management of a separate IAMP document would be an unnecessary administrative burden on the licensees.
2	General	<b>Major</b> - The definition of “Accident Management” in this document is not consistent with the IAEA definition.	Suggested definition of :Accident Management”: “The taking of a set of actions during the evolution of an accident that progresses beyond the design basis to a severe accident, to prevent the further escalation of the accident, to mitigate the consequences of the accident, and to achieve a long-term safe stable state after the accident. The actions under defence in depth Level 4, using additional safety features and supporting guidelines are encompassed within accident management.”	<b>Major</b>	Correct usage of the terms Accident Management and Accident Control is essential for understanding of the REGDOCS and correct application. It is important to maintain the distinction between design basis (DB) and beyond design basis (BDB). Using a term that is internationally acknowledged as referring to a BDB state in a manner that is inclusive of DB has the potential to create significant confusion.

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
3	General	<b>Major</b> - Accident Control requires to be similarly defined to ensure correct application of the terms in the text:	Suggested definition of “Accident Control”:  The taking of a set of actions during the evolution of a design basis accident to prevent the escalation of the accident, to mitigate the consequences of the accident, and to achieve a long-term safe stable state after the accident. The actions under defence in depth Level 3, utilizing engineered safety features and accident procedures are encompassed within accident control.	<b>Major</b>	Correct usage of the terms Accident Management and Accident Control is essential for understanding of the REGDOCS and correct application. It is important to maintain the distinction between design basis (DB) and beyond design basis (BDB).
4	General	<b>Major</b> - Correct application of the terms “Accident Management” and “Accident Control” throughout the document.	Attachment 1 includes all occurrences of the terms and the suggested aligned usages of the terms.	<b>Major</b>	Correct usage of the terms Accident Management and Accident Control is essential for understanding of the REGDOCS and correct application. It is important to maintain the distinction between design basis (DB) and beyond design basis (BDB).
5	1.2, Figure 1, Glossary	<b>Major</b> - “... beyond-design-basis accidents (BDBAs), including severe accidents.”  <i>The concept of “design extension conditions” should be included with beyond design basis accidents for consistency with other regulatory</i>	Suggested change:  “... beyond-design-basis accidents (BDBAs), including design extension conditions (DECs) (DECs could include severe accident conditions).”  Add definition:	<b>Major</b>	Consistency in the relationship between “design extension conditions”, beyond design basis accidents and severe accidents is needed for emergency preparedness and consistency with other regulatory documents.

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
		<p><i>documents</i></p> <p><b>Figure 1 should include “design extension conditions”</b></p> <p><b>Definition for “design extension conditions” should be included in the Glossary</b></p>	<p><b>design extension conditions</b> A subset of beyond-design-basis accidents that are considered in the design process of the facility in accordance with best-estimate methodology to keep releases of radioactive material within acceptable limits. Design extension conditions could include severe accident conditions.</p> <p>Revise Figure 1 to show relationship between design extension conditions, BDBA and severe accidents.</p>		
6	Section 3.3	<p><b>Major</b> - Requirement #1 currently states as follows:</p> <p><i>“Licensees shall:</i></p> <ol style="list-style-type: none"> <li><i>1. provide adequate <b>design capabilities</b> to preserve the physical barriers for release of radioactivity and to ensure that means are available to:</i> <ol style="list-style-type: none"> <li><i>a. control challenges posed by DBAs within appropriate limits</i></li> <li><i>b. mitigate consequences of BDBAs</i></li> <li><i>c. reduce radiation risks from possible releases of radioactive materials by carrying out accident management actions.”</i></li> </ol> </li> </ol>	<p>Suggested change :</p> <p><i>“Licensees shall:</i></p> <ol style="list-style-type: none"> <li><i>1. preserve the physical barriers for release of radioactivity and ensure that means are available to:</i> <ol style="list-style-type: none"> <li><i>a. control challenges posed by DBAs within appropriate limits by providing adequate <b>design capabilities</b></i></li> <li><i>b. mitigate consequences of BDBAs by providing <b>additional safety features</b> if required</i></li> <li><i>c. reduce radiation risks from possible releases of radioactive materials by carrying out accident <b>response.</b>”</i></li> </ol> </li> </ol>	<b>Major</b>	The revision is required to prevent unintended imposing of design requirements for BDBAs; design requirements apply to the design basis.

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
		While it is appropriate to use the term “design capabilities” when referring to DBAs as in requirement (a) above, it is not appropriate to use this term when referring to BDBA as in item (b) above. The term “additional safety features” should be used when referring to capabilities for BDBAs.			
7	Glossary	<p><b>Major - “severe accident”</b> Accident conditions more severe than a design basis accident and involving significant core degradation.”</p> <p>The definition differs from the corresponding definition in REGDOC-2.5.2</p>	<p>Suggested change:</p> <p><b>“severe accident” -</b> “An accident more severe than a design-basis accident and involving severe fuel degradation in the reactor core or spent fuel pool.”</p>	<b>Major</b>	Consistency in use of terminology is needed.
8	Appendix A, Figure 2	<p><b>Major - Figure 2 in Appendix A is confusing. It implies that Level 4&amp;5 belongs to the EP program and does not fall under accident management. Suggested changes in definition in comments 2 and 3, plus suggested changes in comments 9, 12 and 13 impact on the current figure 2.</b></p>	<p>Suggested change:</p> <p>Attached is a revised version of Fig 2 clarifying the relationships. This includes suggested changes to align the definitions in comments 2, 3, 9, 12 and 13.</p>	<b>Major</b>	Consistency in the relationship between “design extension conditions”, beyond design basis accidents and severe accidents is needed for emergency preparedness and consistency with other regulatory documents. Alignment of definitions with suggested changes.
9	General	<p><b>Major - The document does not include any specific reference to the new Emergency Mitigating Equipment and the associated Emergency Mitigating Equipment Guidelines</b></p>	<p>Suggested Change:</p> <p>Text should be revised to include references to EME and EMEG in Section 2, Section 3.4, and</p>	<b>Major</b>	EME is an important part of accident management at Canadian NPPs and its positioning within Accident Management needs to be clearly documented.

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
		<i>being implemented as an important part of the accident management programs at Canadian NPPs.</i>	the Glossary. Figure 1 and Figure 2 (appendix A) should be revised to show EME and EMEG relationships.		
10	Section 5.4	<b>Major</b> - REGDOC 2.2.2 has not been issued and industry has major issues with the current draft. The section does not lose any meaning by dropping the reference.	Suggested Change: Reword the second sentence of 5.4 to:  <i>“Training should be commensurate with personnel’s respective roles in accident, enabling them to:”</i>	<b>Major</b>	REGDOC 2.2.2 has not been issued and its reference does not add anything to this REGDOC.
11		<b>Major</b> - 5.4 states:  <i>“To the extent practicable, the licensee should use simulator training, because it provides a realistic and interactive environment and is an efficient method for enhancing human response in complex situations.</i>  <b>The practical use of simulator training for Accident Management scenarios, i.e. BDBA/SAMG, is severely limited, particularly due to limitations of models.</b>  <b>Each type of training to be conducted is dealt with by a Systematic-Approach-to-Training (SAT).</b>	<i>Suggested Change:</i>  <i>Remove the last sentence of Section 5.4</i>	<b>Major</b>	Simulator modeling is not amenable to supporting the running of SAMG and EME drills for BDBA scenarios.

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
12	4.3.1 and Glossary. Section 4.2.1  App. A, Fig 2	<b>Major</b> - Rather than using the term “complementary design features”, to be consistent with the latest terminology from the IAEA (based on Canadian feedback) it is suggested that the words “additional safety features” be used.	Suggested Change:  Throughout the document, Replace “complementary design features” With “additional safety features.” Update Fig 2 to use the term “additional safety features”.  This is consistent with the industry comments provided on REGDOC-2.4.1, Deterministic Safety Analysis.	<b>Major</b>	Removing the word “design” avoids the potential of associating design requirements with BDBA; design requirements are only associated with design basis accidents.
13	App. A, Figure 2	<b>Major</b> - The provisions “complementary design features” and “containment and design feature” are both mentioned under the “mitigation” portion for “beyond design basis accidents”. Are these two provisions meant to be the same?	Suggested Change: If the meaning “complementary design features” and “containment and design feature” is meant to be one and the same, consider replacing both terms with “additional safety features”.	<b>Major</b>	“containment and design feature” is not a clearly understood term and therefore that could lead to confusion.
14	General	<b>Clarification</b> - The overall document structure is quite different from REGDOC-2.10.1. In particular the separate requirements and guidance sections rather than the inclusion of guidance sub-sections with the requirements.	Standard format for REGDOCs	<b>Clarification</b>	
15	3.5	<b>Clarification</b> - “ensure that the IAMP contains provisions for the setup of a technical support centre to support SAM”.	Suggested change:  4. “ensure that the accident management and control requirements contain provisions for the setup of emergency support facilities,	<b>Clarification</b>	



No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
			<p>consisting of a technical support centre and an onsite emergency support centre. The technical support centre and the emergency support centre can be located in one place or separated.”</p> <p><b>This is consistent with REGDOC-2.5.2 Section 8.10.3</b></p>		
16	6.1	<p><b>Clarification</b> - The use of “verification” in the first bullet should be rephrased to reflect the anticipated review activity.</p>	<p>Suggested Change:</p> <p>Revise first bullet: “<del>verification</del> review that the selection and scope of the IAMP meet requirements”</p>	<p><b>Clarification</b></p>	
17	3.5 item 6	<p><b>Clarification</b> - Habitability of facilities should also include an option to relocate to designated alternate facilities.</p>	<p>Suggest Change:</p> <p>adding the following wording to the end of 3.5 sub bullet #6: “.... or provide alternate habitable facilities.”</p>	<p><b>Clarification</b></p>	
18	4.2.4 p. 12	<p><b>Clarification</b> - on what “extended station blackout conditions” would be helpful in the following statement:</p> <p>“Verify that SAM would be effective for representative severe accident sequences, including multi-unit events, events triggered by natural and human-induced external hazards, and extended station blackout conditions.”</p>	<p>Suggested Change:</p> <p>Replace “extended station blackout conditions” with “events involving an extended loss of all AC power.”</p> <p>This was previously requested in the comments submitted on September 28, 2012 (N-CORR-00531-05872), but not implemented.</p>	<p><b>Clarification</b></p>	

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
19	6.2	<p><b>Clarification</b> - The third paragraph states that:</p> <p>“essential reactor monitoring features and instrumentation for diagnosing reactor state should be identified and verified for severe accident conditions”.</p> <p>This should be rephrased to reflect the requirement to assess for reasonable assurance.</p>	<p>Suggested Change:</p> <p>It is recommended that this bullet be rephrased to “reasonable assurance that ... will function” rather than “verified to function”.</p> <p>Revise:</p> <p>“Essential reactor monitoring features and instrumentation for diagnosing reactor state should be identified and verified for severe accident conditions, so that they function reliably and provide meaningful data.”</p> <p>To:</p> <p>“Essential reactor monitoring features and instrumentation for diagnosing reactor state should be identified for severe accident conditions and reasonable assurance is provided that they will function reliably and provide meaningful data.”</p> <p>This was previously requested in the comments submitted on September 28, 2012 (N-CORR-00531-05872), but not implemented.</p>	Clarification	

No.	Section	Industry issue	Suggested change(if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
20	Section 4.2.1	<p><b>Clarification</b> - Item (c) in Requirement #4 of Section 3.4 states as follows:  <i>“actions to be taken to counter the damage mechanisms that would potentially challenge the integrity of the containment, irrespective of predicted frequencies of occurrence for those damage mechanisms”</i>. SAM is symptom based, irrespective of events that caused them. Therefore the highlighted phrase above should be deleted.</p>	<p>Suggested Change:   <b>Delete</b> “irrespective of predicted frequencies of occurrence for those damage mechanisms”.  ...in item (c) in Requirement #4 of Section 3.4</p>	<p><b>Clarification</b></p>	
21	Section 4.3.4	<p><b>Clarification</b> - This section does not appear to specify additional requirements with respect to communication in accident management.</p>	<p>Suggest Change:   Delete this section as communication is addressed in REGDOC 2.10.1.</p>	<p><b>Clarification</b></p>	

<sup>1</sup> Please identify whether the comment is a major comment or a request for clarification

Attachment to OPG Comments on Draft REGDOC-2.3.2, Accident Management – Application of “Accident Management” and “Accident Control” Definitions

**Additional OPG Comments on REGDOC-2.3.2, Accident Management**

Item No.	Document section/ excerpt of section	Industry issue	Suggested change (if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
A1	General	<p>The title of the REGDOC is “Accident Management” and the REGDOC defines “Accident Management” as “The taking of a set of actions during the evolution of an accident to prevent the escalation of the accident, to mitigate the consequences of the accident, and to achieve a long-term safe stable state after the accident.” The definition is meant to cover both design basis and beyond design basis accident strategies.</p> <p>The REGDOC indicate that “<i>Key principles and elements used in developing this document are consistent with International Atomic Energy Agency (IAEA) safety principles, guides and reports.....</i>” such as in IAEA Safety Standards Series No. NS-G-2.15, <i>Severe Accident Management Programmes for Nuclear Power Plants</i> and IAEA Safety Reports Series No. 32, <i>Implementation of Accident Management Programmes in Nuclear Power Plants</i>. However, both</p>	<p>The REGDOC title should be changed to “Accident Control and Management” where “accident control” is used for DBA and “accident management” is used for BDBAs.</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 this differentiation needs to be made clear in order to avoid confusion within the industry.</p>

Attachment to OPG Comments on Draft REGDOC-2.3.2, Accident Management – Application of “Accident Management” and “Accident Control”  
Definitions

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		<p>the aforementioned IAEA documents define “Accident Management” as:  <i>“The taking of a set of actions during the evolution of a beyond design basis accident:            (a) To prevent the escalation of the event into a severe accident;            (b) To mitigate the consequences of a severe accident;            (c) To achieve a long term safe stable state.”</i></p> <p>In the REGDOC the term “Accident Management” covers both design basis and beyond design basis accidents actions, whereas in the IAEA documents “Accident Management” covers beyond design basis accident only. Therefore the intended definition of the term “Accident Management” in this REGDOC is not consistent with the definition in IAEA documents.</p>			
A2	General	<p>The term <b>“Integrated Accident Management Programs (IAMPs)”</b> is used.</p>	<p>Suggested change:            Wherever the term <b>“Integrated Accident Management Programs</b></p>	Major Comment	<p>There is a danger that it can be interpreted that licensees will be required to develop a stand alone IAMP document containing all of the requirements defined in this REGDOC. This is contrary to the CSA N286 philosophy of an Integrated Management System.</p>

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		Industry preference is for CNSC REGDOCs to only specify requirements. Whether a specific program document needs to be developed is an implementation issue that should be left to licensee discretion.	<b>(IAMPs)</b> ” is used in this REDDOC replace with <b>“Accident Control and Management (ACM) requirements”</b> .		Development and management of a separate IAMP document would be an unnecessary administrative burden on the licensees.
A3	Preface	The first sentence of the third paragraph currently reads as follows: <b>“Accident management</b> is a commitment to the defence-in-depth approach and is an important component in the licensee’s overall capabilities....”	Suggested change: <b>“Accident control and management</b> a commitment to the defence-in-depth approach and is an important component in the licensee’s overall capabilities.....”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A4	Section 1.1	The first sentence in the first paragraph currently states as follows: <b>“REGDOC-2.3.2, Accident Management</b> , sets out the requirements and guidance of the Canadian Nuclear Safety Commission (CNSC) for the development, implementation and validation of .....	Suggested change: <b>“REGDOC-2.3.2, Accident Control and Management</b> , sets out the requirements and guidance of the Canadian Nuclear Safety Commission (CNSC) for the development, implementation and validation of	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

Attachment to OPG Comments on Draft REGDOC-2.3.2, Accident Management – Application of “Accident Management” and “Accident Control”  
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A5	Section 1.2	The last paragraph in this section states as follows: <i>“This document focuses on the <b>accident management</b> aspects and thus does not include requirements and guidance for emergency preparedness and response.....”</i>	Suggested change: “This document focuses on the <b>accident control and management</b> aspects and thus does not include requirements and guidance for emergency preparedness and response.....”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A6	Section 2.0	The title of this section is <b>“Accident Management and its Links with Emergency Preparedness and the Principle of Defence-In-Depth”</b> .	Suggested revision: <b>“Accident Control and Management and its Links with Emergency Preparedness and the Principle of Defence-In-Depth”</b> .	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A7	Section 2.0	The first paragraph in this section currently states as follows: <i>“The <b>fundamental premise underlying accident management</b> is that the organization operating a nuclear reactor must be able to respond to any credible accident in order to:”</i>	Suggested change: “The <b>fundamental premise underlying accident control and management</b> is that the organization operating a nuclear reactor must be able to respond to any credible	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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			accident in order to:”		
A8	Section 2.0	The second bullet of the second paragraph currently states as follows: <i>“the personnel with responsibilities for <b>accident management</b> are adequately prepared to utilize the available resources, procedures.....”</i>	Suggested change: <i>“the personnel with responsibilities for <b>accident control and management</b> are adequately prepared to utilize the available resources, procedures.....”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A9	Section 2.0	The third paragraph currently states as follows: <i>“Thus, <b>accident management</b> provides capability to respond to an accident within the reactor facility. It is important to recognize that <b>accident management</b> interfaces closely but is distinct from emergency preparedness....”</i>	Suggested change: <i>“Thus, <b>accident control and management</b> provides capability to respond to an accident within the reactor facility. It is important to recognize that <b>accident control and management</b> interfaces closely but is distinct from emergency preparedness....”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A10	Section 2.0	The fourth paragraph currently states as follows: <i>“Both <b>accident management</b> and emergency preparedness form part of the</i>	Suggested change: <i>“Both <b>accident control and management</b> and emergency preparedness form part of the</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.



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		<p><i>defence-in-depth provisions. In particular, <b>accident management</b> contributes to the levels 3 and 4 of defence-in-depth, while emergency preparedness corresponds to level 5 of defence-in-depth. Defense-in-depth level 3 is associated with the control of an accident and rule based procedures are, in general, used. Level 4 of defense-in-depth refers to BDBAs including severe accidents where efforts are focused on managing the accident and operators may need to move beyond the use of rules based procedures to symptoms based guidelines/procedures with considerable judgment required.”</i></p>	<p><b>defence-in-depth provisions. In particular, <b>accident control</b> contributes to the level 3 and accident management to the Level 4 of defence-in-depth, while emergency preparedness corresponds to level 5 of defence-in-depth. Defense-in-depth level 3 is associated with the control of an accident and rule based procedures are, in general, used. Level 4 of defense-in-depth refers to BDBAs including severe accidents where efforts are focused on managing the accident and operators may need to move beyond the use of rules based procedures to symptoms based guidelines/procedures with considerable judgment required.”</b></p>		
A11	Section 2.0	<p><b>The first sentence of the fifth paragraph currently states as follows: “Figure 1 illustrates links between the</b></p>	<p><b>Suggested change: “Figure 1 illustrates links between the <b>accident control</b></b></p>	Major Comment	<p><b>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to</b></p>

Attachment to OPG Comments on Draft REGDOC-2.3.2, Accident Management – Application of “Accident Management” and “Accident Control”  
Definitions

Item No.	Document section/ excerpt of section	Industry issue	Suggested change (if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
		<i>accident management, emergency preparedness and defence-in-depth.</i>	<i>and management, emergency preparedness and defence-in-depth.</i>		confusion within the industry.
A12	Section 3.0	The first sentence of the first paragraph currently states as follows: <i>“This section specifies the requirements for an IAMP. The first subsection sets the goals of accident management.”</i>	Suggested change: <i>““This section specifies the requirements for an accident control and management. The first subsection sets the goals of accident control and management.”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A13	Section 3.1	The title of this section is currently: <i>“Goals of accident management”</i>	Suggested change: <i>“Goals of accident control and management”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A14	Section 3.2	Bullet #8 in this section currently states: <i>“make accident management provisions, including: a. developing criteria for use in determining what procedures to use b. demonstrating the capability to take actions to protect and inform personnel</i>	Suggested change: <i>“make accident control and management provisions, including: a. developing criteria for use in determining what procedures to use b. demonstrating the</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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		<p><i>at the scene</i>  <i>c. identifying the roles and responsibilities of the personnel responsible for <b>accident management</b></i>  <i>d. identifying and evaluating reactor systems and features suitable for use during <b>accident management</b></i>  <i>e. providing adequate training to personnel involved in managing an accident”</i></p>	<p>capability to take actions to protect and inform personnel at the scene  c. identifying the roles and responsibilities of the personnel responsible for <b>accident control and management</b>  d. identifying and evaluating reactor systems and features suitable for use during <b>accident control and management</b>  e. providing adequate training to personnel involved in managing an accident”</p>		
A15	Section 3.3	<p>Bullet #2 in this section currently states:  <i>“address the information needs for <b>accident management</b>, by providing adequate instrumentation that is capable of supporting the need to:</i>  <i>a. diagnose that an accident, including a severe accident, is occurring or has occurred</i></p>	<p>Suggested change:  “address the information needs for <b>accident control and management</b>, by providing adequate instrumentation that is capable of supporting the need to:  a. diagnose that an accident, including a severe accident, is</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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		<p><i>b. obtain information on key parameters, such as neutron flux, temperatures, pressures, flows, combustible gas concentrations, and radiation levels, to assess accident conditions and progression</i></p> <p><i>c. address continuously the state of essential safety functions, including reactor core monitoring, reactivity control, fuel cooling, hydrogen control, and containment</i></p> <p><i>d. confirm the effectiveness of the <b>accident management</b> actions”</i></p>	<p>occurring or has occurred</p> <p><b>b. obtain information on key parameters, such as neutron flux, temperatures, pressures, flows, combustible gas concentrations, and radiation levels, to assess accident conditions and progression</b></p> <p><b>c. address continuously the state of essential safety functions, including reactor core monitoring, reactivity control, fuel cooling, hydrogen control, and containment</b></p> <p><b>d. confirm the effectiveness of the <b>accident control and management</b> actions”</b></p>		
A16	Section 3.4	<p>Bullet #1 in this section currently states:  <i>“develop, verify and validate <b>accident management</b> procedures and guidelines, including EOPs and SAMGs”</i></p>	<p>Suggested change:  <b>“develop, verify and validate <b>accident control and management</b> procedures and guidelines, including EOPs and SAMGs”</b></p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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A17	Section 3.4	Bullet #7 in this section currently states: <i>“provide for transition from the <b>accident management</b> activities to accident recovery”</i>	Bullet #7 in this section currently states: <i>“provide for transition from the <b>accident control and management</b> activities to accident recovery”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A18	Section 3.5	Bullet #3 in this section currently states: <i>“clearly define the roles, responsibilities and authorities for the personnel involved in <b>accident management</b> and ensure coordination among different organizations”</i>	Suggested change: <i>“clearly define the roles, responsibilities and authorities for the personnel involved in <b>accident control and management</b> and ensure coordination among different organizations”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A19	Section 4.1	The first paragraph in this section currently states as follows: <i>“A structured top-down approach (as illustrated in Appendix A) should be used for developing an IAMP. At the top level, the objectives of <b>accident management</b> should be defined according to the level of defence and associated goals that are given in section 3. Challenges to safety functions and</i>	Suggested change: <i>“A structured top-down approach (as illustrated in Appendix A) should be used for addressing Accident and Control requirements. At the top level, the objectives of <b>accident control and management</b> should be defined according to the level</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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Item No.	Document section/ excerpt of section	Industry issue	Suggested change (if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
		<p><i>physical barriers, together with the associated damage mechanisms and conditions, should be identified, which is referred to as identification of challenges. For each of the identified challenges, suitable and effective measures or provisions should be derived, described, and referenced or documented in procedures or guidelines, and used for training the personnel responsible for executing the measures for <b>managing</b> such an accident, should it occur.”</i></p>	<p>of defense and associated goals that are given in section 3. Challenges to safety functions and physical barriers, together with the associated damage mechanisms and conditions, should be identified, which is referred to as identification of challenges. For each of the identified challenges, suitable and effective measures or provisions should be derived, described, and referenced or documented in procedures or guidelines, and used for training the personnel responsible for executing the measures for <b>controlling and/or managing</b> such an accident, should it occur.”</p>		
A20	Section 4.1	<p>The second paragraph in this section currently states:  <i>“The staff responsible for developing the <b>IAMP</b> should have a sufficient level of</i></p>	<p>Suggested change:  “<i>The staff responsible for developing the <b>ACM</b></i></p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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		<i>training and experience regarding <b>accident management</b> in a nuclear facility.”</i>	requirements should have a sufficient level of training and experience regarding <b>accident control and management</b> in a nuclear facility.”		
A21	Section 4.2.1	The last sentence in the fourth paragraph currently states: <i>“The updated knowledge and data should be used to evaluate the reactor ability to cope with accidents and to deduce suitable <b>accident management</b> strategies, provisions, procedures, and guidelines.”</i>	Suggested change: “The updated knowledge and data should be used to evaluate the reactor ability to cope with accidents and to deduce suitable <b>accident control and management</b> strategies, provisions, procedures, and guidelines.”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A22	Section 4.2.1	The sixth paragraph in this section currently states: <i>“<b>Accident management</b> should consider that some beyond-design-basis initiating events may result in similar challenges to all units on the site.”</i>	No change. The term “accident management” is used correctly in this context, i.e. in reference to BDBA. As such the statement is correct as is.	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A23	Section 4.2.3	The first paragraph in this section currently states: <i>“To ensure that the <b>accident</b></i>	No change. The term “accident management” is used	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to

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		<i>management objectives are achieved, a set of strategies for severe accident prevention and accident mitigation should be developed on the basis of the understanding of accident phenomena and reactor-specific accidents, as well as the considerations of the identified reactor challenges and capabilities.”</i>	correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.		confusion within the industry.
A24	Section 4.2.3	The third paragraph in this section currently states: <i>“Reactor damage states, such as damaged fuel, core uncovered and damaged, core debris uncovered leading to failure of the reactor vessel, and movement of the core debris outside the reactor vessel, should be identified based on the reactor parameters monitored and considered in the development of accident management strategies.”</i>	No change. The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A25	Section 4.2.3	The sixth paragraph in this section currently states: <i>“The licensee should identify practical preventive and mitigation actions to</i>	No change. The term “accident management” is used correctly in this context, i.e. in	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.



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		<p><i>achieve the <b>accident management objectives</b>. Generally, <b>accident management actions</b> should include:</i></p> <p>“</p> <p>“</p> <p><i>Bullets</i></p> <p>“</p> <p>“</p> <p><i>To increase the reactor coping capability against beyond-design-basis initiating events, suitable strategies should be established; for example, use of the installed SSCs for the initial <b>accident management</b> phase, dedicated systems or supplementary equipment stored onsite or offsite for the transition phase during which the installed SSCs are incapacitated, and offsite equipment and resources to maintain or restore fuel and containment cooling functions indefinitely.”</i></p>	<p>reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.</p>		
A26	Section 4.2.4	<p>The first paragraph in this section currently states:</p> <p><i>“Safety analysis to support an <b>IAMP</b> can be largely based on the existing analysis (e.g., documented in safety reports or</i></p>	<p>Suggested change:</p> <p><i>“Safety analysis to support <b>ACM requirements</b> can be largely based on the existing analysis (e.g., documented in</i></p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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		<i>probabilistic safety assessment [PSA] documents). Additional analysis, if required, should be performed specifically to address <b>accident management</b> issues.”</i>	safety reports or probabilistic safety assessment [PSA] documents). Additional analysis, if required, should be performed specifically to address <b>accident control and management</b> issues.”		
A27	Section 4.2.4	The forth paragraph in this section currently states: <i>“Necessary computational aids should be identified and developed to assist in the overall success of <b>accident management</b> activities performed by the response organization prior to an actual event. These computational aids are typically obtained using simplified assumptions and are often presented graphically.</i>	No change. The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A28	Section 4.2.5	The first sentence of the first paragraph in this section currently states: <i>“Procedures and guidelines to implement the strategies and measures for <b>accident management</b> should be</i>	Suggested change: “Procedures and guidelines to implement the strategies and measures for <b>accident control and management</b> should be developed and described in	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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		<i>developed and described in documents such as EOPs and SAMGs, or equivalent documents (see the requirements specified in section 3.4). “</i>	documents such as EOPs and SAMGs, or equivalent documents (see the requirements specified in section 3.4).”		
A29	Section 4.3.1	The second paragraph in this section currently states: <i>“Suitable analysis tools and methods should be used, in conjunction with the existing risk (e.g., based on the identified reactor challenges and capabilities), to aid in decision-making regarding equipment and instrumentation provisions or upgrades for <b>accident management.</b>”</i>	Suggested change: <i>“Suitable analysis tools and methods should be used, in conjunction with the existing risk (e.g., based on the identified reactor challenges and capabilities), to aid in decision-making regarding equipment and instrumentation provisions or upgrades for <b>accident control and management.</b>”</i>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A30	Section 4.3.1	The fifth and sixth paragraphs in this section currently state: <i>“Survivability of the equipment that could be used in SAM should be evaluated through a systematic review and assessment of equipment functions and conditions based on the available</i>	No change. The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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		<p><i>knowledge and data, such as from equipment environmental qualification for DBA, severe accident testing and analysis, and engineering judgment. The following steps should be taken:</i></p> <ul style="list-style-type: none"> <li>• <i>identification of <b>accident management</b> actions used to mitigate severe accidents</i></li> <li>• <i>definition of fuel and core damage stage and time period for each <b>accident management</b> action</i></li> <li>• <i>identification of equipment used to perform each of the actions</i></li> <li>• <i>determination of the bounding environmental conditions to the equipment within each time period</i></li> <li>• <i>demonstration that the equipment will survive to perform its function”</i></li> </ul>	<p>statement is correct as is.</p>		
A31	Section 4.3.1	<p>The sixth paragraph in this section currently states:  <i>“The habitability of the facilities used in <b>accident management</b> (such as the main control room, the secondary control room, and the emergency support facilities, including an onsite technical support centre and on onsite emergency</i></p>	<p>Suggested change:  <i>“The habitability of the facilities used in <b>accident control and management</b> (such as the main control room, the secondary control room, and the emergency support facilities, including an</i></p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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		<i>support centre) should be assessed and assured, taking into account the environmental conditions (e.g., radiological conditions and other conditions related to lighting, ventilation, temperature and communication) within and surrounding the facilities during an accident.”</i>	onsite technical support centre and on onsite emergency support centre) should be assessed and assured, taking into account the environmental conditions (e.g., radiological conditions and other conditions related to lighting, ventilation, temperature and communication) within and surrounding the facilities during an accident.”		
A32	Section 4.3.2	The first sentence in the first paragraph of this section currently states: <i>“Adequate instrumentation should be available at each stage of an accident for the monitoring and diagnosis of reactor conditions and for assisting in accident evaluation, <b>accident management</b> decision-making, and action execution.”</i>	Suggested change: “Adequate instrumentation should be available at each stage of an accident for the monitoring and diagnosis of reactor conditions and for assisting in accident evaluation, <b>accident management</b> decision-making, and action execution.”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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A33	Section 4.3.2	<p>The first sentence in the second paragraph in this section currently states:  <i>“The reactor parameters used in each stage of <b>accident management</b> should be checked and evaluated for their reliability.”</i></p>	<p>Suggested change:            “The reactor parameters used in each stage of <b>accident control and management</b> should be checked and evaluated for their reliability.”</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>
A34	Section 4.3.2	<p>The second sentence in the third paragraph of this section currently states:  <i>“Reasonable assurance should be provided that the instrumentation used to monitor severe accident progression and facilitate <b>accident management</b> actions is available.”</i></p>	<p>No change.            The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>
A35	Section 4.3.2	<p>The fourth paragraph in this section currently states:  <i>“Given that during a severe accident the total information flow may be overwhelming and that some of the indications may be contradictory due to failed equipment and instrumentation, the licensee should consider using diagnostic and support tools to help with decision-making for <b>accident</b>”</i></p>	<p>No change.            The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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		<b>management</b> (e.g., computational aids as discussed in section 4.2.4).”			
A36	Section 4.3.3	The fifth paragraph in this section currently states: <i>“Lines of authority should be clearly defined at each stage of the accident. Where evaluation responsibilities and decision-making authority are transferred from the control room staff to the technical support centre and a higher level of authority, the transition should be made at some specific point in time that poses no additional risk to <b>accident management.</b>”</i>	Suggested change: “Lines of authority should be clearly defined at each stage of the accident. Where evaluation responsibilities and decision-making authority are transferred from the control room staff to the technical support centre and a higher level of authority, the transition should be made at some specific point in time that poses no additional risk to <b>accident control and management.</b> ”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A37	Section 4.3.3	The last sentence in the last paragraph of this section currently states: <i>“Suitable backups should be pre-defined for key roles in the <b>accident management</b> organization, including potentially the possibility to transfer authority in whole or in part.”</i>	No change. The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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A38	Section 5.0	<p>The second paragraph in this section currently states: <i>“Implementation of an IAMP should consider, but not be limited to:</i></p> <ul style="list-style-type: none"> <li>• <i>integration of procedures, guidelines, and arrangements to ensure that interfacing issues are addressed and that all IAMP components are put in place to meet the goals of accident management</i></li> <li>• <i>verification of the procedures and guidelines to ensure that they work as intended</i></li> <li>• <i>consideration of human factors and human-machine interface issues to ensure that the required accident management actions can be implemented as intended and in a timely manner”</i></li> </ul>	<p>Sub bested change” “Implementation of ACM requirements should consider, but not be limited to:</p> <ul style="list-style-type: none"> <li>• integration of procedures, guidelines, and arrangements to ensure that interfacing issues are addressed and that all ACM components are put in place to meet the goals of accident control and management</li> <li>• verification of the procedures and guidelines to ensure that they work as intended</li> </ul> <p>consideration of human factors and human-machine interface issues to ensure that the required accident control and management actions can be implemented as intended and in a timely manner”</p>	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.



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A39	Section 5.1	<p>The first sentence in the third paragraph of this section currently states:  <i>“The onsite and offsite emergency response plans and procedures should be reviewed with respect to the <b>accident management</b> actions, to ensure that conflicts do not exist.”</i></p>	<p>Suggested change:            “The onsite and offsite emergency response plans and procedures should be reviewed with respect to the <b>accident control and management</b> actions, to ensure that conflicts do not exist.”</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>
A40	Section 5.3	<p>The second paragraph of this section currently states:  <i>“Sufficient verification and validation of all aspects of human and organizational performance, including EOPs and SAMGs, to execute all the identified <b>accident management actions</b> should be conducted to clearly demonstrate that they can be carried out by reactor personnel under all types of conditions covered by the <b>IAMP</b>.”</i></p>	<p>Suggested change:            “Sufficient verification and validation of all aspects of human and organizational performance, including EOPs and SAMGs, to execute all the identified <b>accident control and management</b> actions should be conducted to clearly demonstrate that they can be carried out by reactor personnel under all types of conditions covered by <b>ACM requirements</b>.”</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

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Item No.	Document section/ excerpt of section	Industry issue	Suggested change (if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
A41	Section 5.3	The seventh paragraph in this section currently states: <i>“Consideration should be given to the fact that reactor staff may be concerned about family and friends following a beyond-design-basis initiating event and may be under extremely high stress while executing <b>accident management</b> actions.”</i>	No change. The term “accident management” is used correctly in this context, i.e. in reference to BDBA (severe accident prevention and mitigation). As such the statement is correct as is.	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A42	Section 5.4	The second paragraph in this section currently states: <i>“The training programs should be commensurate with personnel’s respective roles in <b>accident management</b>.....”</i>	Suggested change: “The training programs should be commensurate with personnel’s respective roles in <b>accident control and management</b> .....”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A43	Section 5.4	The third paragraph in this section currently states: <i>“The licensee should establish qualification, training, deployment, and staffing numbers for the various organizational groups involved in <b>accident management</b>.”</i>	Suggested change: “The licensee should establish qualification, training, deployment, and staffing numbers for the various organizational groups involved in <b>accident control and management</b> .”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

Attachment to OPG Comments on Draft REGDOC-2.3.2, Accident Management – Application of “Accident Management” and “Accident Control”  
Definitions

Item No.	Document section/ excerpt of section	Industry issue	Suggested change (if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
A44	Section 6.2	The first paragraph in this section currently states: <i>“Reactor design capabilities for <b>accident management</b>, such as containment venting, hydrogen mitigation, and coolant make-up provisions should be identified and their effectiveness should be evaluated.”</i>	Suggested change: “Reactor design capabilities for <b>accident control</b> , such as containment venting, hydrogen mitigation, and coolant make-up provisions should be identified and their effectiveness should be evaluated.”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A45	Section 6.3	The first paragraph in this section states as follows: <i>“The licensee should perform an assessment to determine the availability of coolant, energy, and other materiel resources that may be required for the effective completion of <b>accident management</b> actions.”</i>	Suggested change: “The licensee should perform an assessment to determine the availability of coolant, energy, and other materiel resources that may be required for the effective completion of <b>accident control</b> actions.”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.
A46	Section 7.0	The forth bullet in the third paragraph in this section currently states: <i>“performance capabilities for the systems and equipment that are used in support of <b>accident management</b> procedures and actions”</i>	Suggested change: “performance capabilities for the systems and equipment that are used in support of <b>accident control and management</b> procedures and actions”	Major Comment	The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.

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A47	Section 7.0	<p>The second bullet in the fourth paragraph in this section currently states: <i>“distinct stages of an accident progression if no <b>accident management</b> actions are credited”</i></p>	<p>Suggested change: “distinct stages of an accident progression if no <b>accident control and management</b> actions are credited”</p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>
A48	Glossary	<p>The following entry is contained in the glossary: <i>“<b>accident management</b> The taking of a set of actions during the evolution of an accident to prevent the escalation of the accident, to mitigate the consequences of the accident, and to achieve a long-term safe stable state after the accident.”</i></p>	<p>Suggested change: “<b>accident control and management</b> The taking of a set of actions during the evolution of an accident to prevent the escalation of the accident, to mitigate the consequences of the accident, and to achieve a long-term safe stable state after the accident. <b>In specific accident control applies to DBA under level 3 of the defence-in-depth approach and accident management applies to BDBA including severe accidents under the level 4 of the defence-in-depth approach.”</b></p>	Major Comment	<p>The IAEA definition and scope of “Accident Management” is different than the intended definition and scope of “Accident Management” in REGDOC - 2.3.2 and as such is leading to confusion within the industry.</p>

Attachment to OPG Comments on Draft REGDOC-2.3.2, Accident Management – Application of “Accident Management” and “Accident Control”  
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Item No.	Document section/ excerpt of section	Industry issue	Suggested change (if applicable )	Major Comment/ request for clarification <sup>1</sup>	Impact on industry if major comment
A49	Glossary	<p>The following entry is contained in the glossary:</p> <p><i>“offsite The facilities and organizations outside the juridical consideration of the licensed facility, including the various federal, provincial and municipal organizations that are required to communicate with and respond to a facility accident in accordance with the facility <b>accident management</b> procedures.”</i></p>	<p>Suggested change:</p> <p><b>“offsite The facilities and organizations outside the juridical consideration of the licensed facility, including the various federal, provincial and municipal organizations that are required to communicate with and respond to a facility accident in accordance with the facility <b>accident control and management</b> procedures.”</b></p>		

<sup>1</sup> Please identify whether the comment is a major comment or a request for clarification

