

## Bruce Power comments on REGDOC-2.10.1, Nuclear Emergency Preparedness and Response

| # | Document section/excerpt of section | Industry issue   | Suggested change (if applicable )   | Major Comment/request for clarification | Impact on industry  |
|---|-------------------------------------|--|---|---|---|
| 1 | General                             | Requirement to submit documentation to CNSC should be consistent within this document and other licensing documentation such as the PROL or the Licence Condition Handbook for NPP.  | Ensure alignment between reporting requirements (e.g. Section 2.2 EP program changes, 2.3.9 ER plan and plan validations, 2.4.1 training program changes, etc) within REGDOC 2.10.1 and other licensing requirements, (e.g. PROL and LCH). Requirements for providing modified documentation should be only in the LCH. | Clarification                           | Requirement for consistency across the Regulatory Framework |
| 2 | General                             | The overall document structure is quite different from REGDOC-2.3.2. In particular the inclusion of guidance sub-sections with the requirements rather than completely separate requirements and guidance sections could lead to confusion about requirements. | Preference is to have the separate sections as in REGDOC-2.3.2.   | Clarification                           |   |
| 3 | Entire Document                     | Consistency of this document to the industry standard CSA Z1600 Emergency and Continuity Management Programs   | It is suggested this document be closely reviewed against the CSA Z1600 in order to ensure the consistent use of professional emergency management terminology throughout this document, as well as for alignment with the standards and expectations that are set out by the   | Editorial                               |   |

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|   |   |   | CSA Z1600 industry standard.  |   |                    |
| 4 | <p>Preface</p> <p>“EP programs are based on four components: planning basis; program management; response plan and procedures; and preparedness.”</p> | <p>Content of emergency preparedness programs should be consistent with the structure of the new CSA Z1600 Emergency and Continuity Management Programs.</p> <p>Suggested change will further add additional clarity as the above components “planning basis; program management” are reflective of a management system, whereas “response plan and procedures; and preparedness” may be sub-components within that managed system. While the four components mentioned originally are relevant to emergency preparedness, it is not a complete list of components that contribute to emergency preparedness. Hazard identifications and risk assessments are equally</p> | <p>“EP programs are structured on a management system and include five major components including program management, planning, implementation, program evaluation and management review”.</p> <p>Note: As a result of this change, the remainder of the document would need to be structured under the five main headings.</p> | Clarification                           |                    |

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|   |                                     | <p>important, and while they are intended to fall within “planning basis” it is not immediately clear whether they are considered from the original statement. The suggested change articulates to the reader that the EP program is structured on a strategic comprehensive framework that enables the complete management of the EP initiative, and all other components are included in that system.</p> |   |   |                    |
| 5 | 1.2                                 | <p>Requirements in this draft REGDOC cover all Class 1 facilities (which includes the Class 1B Waste facilities) however the requirements are focused on the NPP response.</p>  | <p>Suggest rewording as follows:</p> <p>This regulatory document lists and discusses the components and supporting elements that CNSC licensees shall implement and consider when establishing emergency preparedness programs to prepare for, to respond to, and to recover from the effects of accidental radiological/nuclear and/or hazardous substance releases from Class I nuclear power plant facilities or uranium mines or mills.</p> | Clarification                           |                    |

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| 6 | 1.3<br>“In particular, accident management contributes to the levels 3 and 4 of defence-in-depth, while emergency preparedness corresponds to level 5 of defence-in-depth.” | The definition of “Accident Management” in this document (and in REGDOC 2.3.2) is not consistent with the IAEA definition. ”         | Define and use terms consistent with IAEA definition.  | Major Comment                           | It is vitally 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, both with implementation requirements and with the public. |
| 7 | 1.3   | Significant portion of section 1.3 is a direct repeat from Draft REGDOC 2.3.2.<br><br>Duplication between REGDOCs should be avoided. | Suggest rewording as follows:<br><br>“An effective response to an emergency requires strong linkages between accident management and emergency response. Refer to REGDOC 2.3.2, Accident Management for clear understanding of Accident Management.” | Clarification                           |  |

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| 8  | Figure 1                            | Offsite Emergency Response on Diagram   | <p>Offsite ER is currently noted only at the level of BDBA.</p> <p>Offsite Emergency Response occurs within a DBA</p> <p>Concept of “on-site” and “off-site” should be defined.</p>  | Major Comment                           | Lack of clarity could potentially result in differences interpretation and implementation  |
| 9  | 2.2 Guidance                        | Redundant information found in licences and LCHs.   | Delete:<br>submit all EP program changes to the CNSC at least 30 days before implementing “  | Major Comment                           | This requirement should be in the LCH for the facility, to ensure it is captured in licensee management systems.   |
| 10 | 2.3.2 bullet 5                      | The timelines for notification in 5 should appear as guidance. The main priority needs to be stabilizing the situation and if notification takes longer than 15 minutes it should not become an issue. The current reporting requirements for operating NPPs require immediate notification upon activation of the ERO. It is also noted that there should only be one required notification to the CNSC, further updates will be | <p>Move 5 to guidance and reword to :</p> <p>describe all offsite notification requirements and any time requirements that apply, ensuring that:</p> <p>a. the description includes identification of the appropriate positions, by title and agency, of the provincial, territorial and local government agencies as required by the provincial or territorial Emergency Plan</p> <p>b. offsite authorities including CNSC are notified, this should occur within 15 minutes of any event categorized as a Reportable Event or above,</p> <p>c. status of the Licensee ERO should be included</p> | Major comment                           | The requirements should be performance based and not prescribed. This is already covered in S-99 and will be covered by S-99’s replacement REGDOC 3.1.1. There may be situations where licensees take longer than 15 minutes to issue notifications; this should not be an issue as long as it is done in a prompt fashion as soon as staff is available to make the notifications. Making this a strict requirement could result in unnecessary issues arising during post accident/incident follow up. It is also unnecessary to provide multiple notifications, this will add unnecessary confusion and complication during events that require these notifications |

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|    |                                     | provided per the program requirements.   | with the initial notification,<br><br>d. notification of changes in ERO status to off site authorities should be made within 15 minutes of the change.   |   |  |
| 11 | 2.3.3 bullet 5                      | Clarification of “station perimeter” is requested.   | Suggest replacing with “nuclear facility perimeter” as this is defined by the licence  | Clarification                           |  |
| 12 | 2.3.3 bullet 6                      | Some licensees are planning to have real-time fixed radiological detection and monitoring capabilities off site with appropriate backup power, this REGDOC should not restrict the option of real-time off-site monitors | Suggest rewording as follows:<br><br>have sufficient capacity and capability for offsite radiological monitoring, including mobile offsite survey teams <u>or</u> real-time fixed radiological detection and monitoring capabilities with appropriate backup power and report results to the offsite response authorities and the CNSC | Major comment                           | The current wording is too restrictive and discounts an option to have real time off site monitoring.          |
| 13 | 2.3.4 Bullet 5                      | promptly and regularly provide recommendations to offsite authorities and the CNSC when protective action is required  | Suggest rewording as follows:<br><br>promptly and regularly provide the necessary information to offsite authorities and the CNSC to allow informed decisions on protective action for   | Major Comment                           | The original statement has the potential to create confusion about the authority to enact protective measures. |

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|    |                                     |  | the public to be made.  |   |   |
| 14 | 2.3.4<br>Bullet 11                  | The requirement to notify the CNSC prior to nominal venting and the requirement to ensure consultation prior to alternate venting must have an allowance for situations where venting is required without first having these activities carried out. | Suggest rewording as follows:<br><br>for NPPs, designate an onsite person with the authority for nominal venting and ensure that notification is made to offsite authorities and the CNSC prior to nominal venting. Protecting the structural integrity of containment shall take priority if notification can not be made due to circumstances beyond Licensee's control. In this case notification shall be made as soon as possible. | Major Comment                           | This is to avoid confusion on the priority in the highly unlikely event that communication is not possible. It is an important provision for the plant operator to have authority to vent when required to protect the plant/personnel/public. In certain circumstances, it may not be possible to notify or consult in advance of the requirement to vent. This is consistent with current practice. |
| 15 | 2.3.4<br>page 11<br>footnotes       | The footnotes do not line up with the correct bullets (11 and 12).   | The definition of venting is not necessary here and should be in the glossary. Then the footnotes can be aligned with the proper bullets.   | Editorial                               |   |
| 16 | 2.3.5 Guidance<br>bullet 16         | Clarity around responsibilities for KI pill distribution   | Suggest rewording 16 as follows:<br><br>Providing KI Pills for only on-site personnel and having a plan for procurement and distribution of KI Pills for the primary zone and municipalities.   | Clarification                           | The document needs to be clear on the expectations for the most appropriate method of distribution of KI pills. While due to logistics, pre-distribution may be required in some locations, it may not be required for other locations.   |

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| 17 | 2.3.6<br>Bullets 4 - 14             | This section is confusing and repetitive. | <p>Suggest rewording as follows:</p> <ol style="list-style-type: none"> <li>4. ensure that emergency response facilities are planned, constructed and located such that effective command and control can be maintained in all postulated emergencies. Severe circumstances such as earthquake and tornadoes; the possible presence of hazardous materials; and operation for extended times (72 hours minimum) without external support will be included in the plan.</li> <li>5. have at least one facility within or in close proximity to the licensed facility.</li> <li>6. have at least one emergency response facility outside of the protected area in a suitable location but in close enough proximity to the facility to support effective command and control of response activities,</li> <li>7. have a back up facility to each primary facility such that the back up facility is unlikely to be effected by an event that would disable the primary.</li> <li>8. clearly designate the location of emergency response facilities .</li> <li>9. pre-arrange memoranda of understanding and/or</li> </ol> | Major comment                           | The terms off site and on site can add confusion and are not necessary. Several of the bullets were repetitive in nature; summarizing the requirements is clearer. The approach should not specify hardened facilities but should instead require an effective strategy to deal with hazardous circumstances. A hardened facility is only one approach and other approaches may be more effective depending on the circumstances. |



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|    |                                     |  | <p>other priority services agreements required for activities such as providing fuel for backup power generation, and ensure such agreements are documented and either referenced or attached to the ER plan</p> <p>10. determine and implement methods for communicating with onsite personnel and offsite authorities, including the implementation of at least two levels of backup communications systems; licensee communication links must be compatible with the licensee, province or territory, and the CNSC</p> <p>11. designate a predetermined work space for a CNSC representative at all emergency operations facilities and ensure necessary communication and information equipment/technology is available</p> |   |  |
| 18 | 2.3.8<br>Bullet 3                   | This is an unreasonable requirement as some recovery efforts will commence as soon as the event/accident is under control. | <p>Reword to:</p> <p>submit the actual recovery plan to the CNSC as soon as practical after commencing recovery efforts noting any recovery efforts that may have already taken place</p>   | Major Comment                           | This could cause delay in recovery process as some recovery efforts are required to commence immediately after the event/accident is under control for protection of the health and safety of workers, the public and the environment, therefore; it is unreasonable to expect that the plan will be submitted prior to commencing any activity. |

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| 19 | 2.3.9                               | <p>LCH provides requirements for notifications of changes to documents made to the documents needed to support the licensing basis.</p> <p>Any validation process should be risk based, as per the utility's change management process. There are many ways to perform validation and in licensee experience the expectations of the CNSC is highly dependent of the CNSC specialist reviewing the validation.</p> | <p>Delete:</p> <p>“notify the CNSC of changes to ER plans and procedures, and submit the results of the validation to the CNSC, at least 30 days before implementing changes”</p> <p>Reword the Guidance section to:</p> <p>For the purpose of this section, “change” means an action that results in modification to, addition to, or removal from a licensee’s ER plan. All changes should be validated to demonstrate that performance requirements are met and to determine if there has been a reduction in effectiveness (i.e., decreased capability to respond to an emergency). Purely administrative changes that are intended to update the document without changing intent do not require validation,</p> | Major Comment                           | <p>Repeating notification requirements contained elsewhere is unnecessary and can result in inconsistent or conflicting requirements.</p> <p>The level of validation needs to be consummate with the nature of the change for example; minor changes should require no validation or only low level desktop validation whereas major changes could require a full HF validation following guidance in G-278.</p> |
| 20 | 2.4.1, Bullet 1                     | Licensees do not submit training programs for other areas (with the exception of certified training programs). It  | Delete the requirement to submit the training program – Reword Bullet 1 to:<br>provide radiation protection training (either onsite   | Major comment                           | Submission of this training program does not fit in with the current regulatory framework as other training programs are not submitted. Review of this should be   |

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|    |                                     | should not be required here.   | or offsite) for offsite authorities' emergency response staff expected to assist in an emergency;  |   | part of the CNSC compliance inspection program.   |
| 21 | 2.4.1<br>Bullet 2                   | This requirement is not contained in the current LCHs. If it is a reporting requirement it should be in the new REGDOC 3.1.1   | Delete Bullet 2<br><br>This requirement should be considered for inclusion in REGDOC 3.1.1 instead of in this REGDOC   | Major comment                           | Will result in confusion in compliance, as requirement does not occur in reference document.  |
| 22 | 2.4.1<br>Bullet 3                   | The training development requirements are already covered in the operating licence under CSA N286.   | Delete Bullet 3  | Major comment                           | There is no need to have this requirement as it already exists through the operating licence covered by CSA N286. (It is assumed REGDOC 2.2.2 will be referenced in the future thus making this requirement redundant). |
| 23 | 2.4.3                               | Public Education Program – Title refers to “education”, text refers to “information”<br><br>Educating the public about what to do at the time of a nuclear emergency is the responsibility of the province | Differentiate from terms “public education program” vs. “public information program”.<br><br>Should clarify CNSC expectations with respect to the extent of the zone requiring a public education program. This should be consistent with proposed CSA N1600.<br><br>Suggest that this section should direct to REGDOC/GD 99.3. where the intention is | Major Comment                           | Terminology between documents needs to be consistent for appropriate compliance.<br><br>Public education is a provincial the responsibility of the province. There is a potential for jurisdictional conflict.          |

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|    |                                     |   | "information"  |   |  |
| 24 | 2.4.4<br>Bullet 15                  | Requirement for full-scale emergency exercise self-assessment reports to be submitted to the CNSC within 40 business days does not allow sufficient time for a quality response | Suggest that the requirement should be to submit the reports within 90 calendar days and the requirement be moved to REGDOC 3.1.1 which contains reporting requirements. | Major comment                           | <p>This is in recognition of the breadth of a full scale exercise, which may incorporate multi-unit / multi-site scenarios. There is significant coordination required across a multi-jurisdictional exercise and sufficient time is required to ensure clear understanding and disposition of the issues raised.</p> <p>It is preferable to maintain all reporting requirements in a single document.</p> |