September 12, 2016

Michael G. Grey

Canadian Nuclear Safety Commission
P.O. Box 1046, Station B
280 Slater Street
Ottawa, ON, K1P 5S9

Re: CNSC Discussion Paper DIS-16-03 “Radioactive Waste Management & Decommissioning”.

Dear Sir/Madam:

Thank you for the opportunity to review CNSC Discussion Paper DIS-16-03 “Radioactive Waste Management & Decommissioning” and my comments that are summarized below. Please note that these are my personal comments and they do not reflect the opinions of any other person, company or organization.

DEFINING WASTE TYPES

I would agree with establishing separate regulations for decommissioning projects and most wastes since there are significant differences between the hazards inherent in these activities and those commonly associated with Class I or II Nuclear Facilities but I believe that the new regulations should not be applied to certain types of waste that present hazards that are similar to those commonly associated with Class I Nuclear Facilities. For example, used fuel recently discharged from a reactor presents different and significantly greater hazards that most other wastes and the safety and security measures required for a wet storage bay for recently discharged used fuel (e.g.: cooling, water purification, level monitoring) are more similar to those required for Class I Nuclear Facilities than those required for low and intermediate level wastes and older used fuel wastes (e.g.: shielding & confinement).

I would suggest that the scope of the activities falling within the proposed waste and decommissioning regulations should be limited to activities that only require passive safety and security measures. This could be achieved by placing an upper limit on the thermal output of those high level fuels that fall within the new regulations. Those wastes with a greater thermal output should continue to be managed as part of the Class I Nuclear Facility that generated those wastes.

Decommissioning of a facility could fall under the same regulations since the hazards associated with decommissioning are significantly different from those arising from the operation of the facility. Again, passive safety and security measures are likely to be sufficient for a facility being decommissioned and

greater emphasis could be given to the non-radiological hazards that are of greater importance during decommissioning.

While I believe that the terms 'low level', 'intermediate level' and so forth are useful as qualitative descriptions of waste properties, I do not believe that there is any benefit in universally imposing arbitrary quantitative limits on activities, radiation dose rates or other characteristics of radioactive wastes on specific waste management facilities or processes.. The behavior of any specific waste management facility is dependant on the design of the facility and its surrounding environment. I believe that general classifications that ignore these unique characteristics of a specific management facility and processes are potentially misleading. Most existing facilities have already established WAC which may not correspond to any values established by regulation and I believe that a site-specific approach is more meaningful and useful than any definitions that are arbitrarily imposed by a general regulation.

REDUCE, REUSE & RECYCLE

I do not object to reinforcing the importance of 'reduce, reuse & recycle' in the proposed regulation. Waste reduction is an effective and widely used strategy but the nature of radioactive waste, the requirements of other regulations and the conditions of the applicable licences may limit the opportunities to reuse or recycle materials that could be considered radioactive waste and any emphasis on the 3Rs must recognize the possible limitations on reuse and recycling.

ENVIRONMENTAL REMEDIATION

There are strong similarities between environmental remediation and both decommissioning and waste management. Decommissioning and environmental remediation are frequently performed by the same organizations using the same, or very similar, procedures and technologies. Consequently, I believe that environmental remediation, decommissioning and waste management can reasonably be accommodated within the same regulations and that there are advantages in adopting this approach.

RELEASE FROM LICENSING

I agree that the term 'abandon' is widely misunderstood and I would support replacing the current 'Licence to Abandon' with a licence revocation. I do believe that there may be a place for a licence to maintain a site in an inactive state, both before or after decommissioning, and that something other than a 'Licence to Decommission' may be more appropriate.

CLEARANCE

'Exemption', exclusion' and 'clearance' is not addressed in the Discussion Paper. "Clearance' is currently permitted by the 'Nuclear Substance & Radiation Devices Regulations' and unconditional clearance levels are established by those Regulations. I would suggest that 'clearance' should be addressed in the proposed 'Waste & Decommissioning Regulations' rather than the NSRD which would make it clear that this practice can be applied more generally.

Please feel free to contact me if you have any questions or if I can provide any additional information.

Sincerely;

Michael G. Grey, CHP ROH