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Mr. Theodore S. Sherr
Chief, Regulatory and International Safeguards Branch
U.S. Nuclear Regulatory Commission
Two White Flint North 8A33
Washington, D.C. 20555

Reference: Comments on the March 2000 Draft Version of NUREG-1520 'Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility': Chapter 9 – Environmental Protection

Dear Mr. Sherr:

The Nuclear Energy Institute (NEI)¹ and its industry members have reviewed the March 2000 revision of draft Standard Review Plan (SRP) Chapter 9 entitled 'Environmental Protection'. We regret being unable to submit these comments prior to the April 18-19 NRC Public Meeting on the SRP, but we do hope they will be of assistance to the staff in revising this chapter of draft NUREG-1520. We have examined how the staff has addressed issues raised by NEI in its letter to you dated September 8, 1999 on the previous version of Chapter 9 (May 1999). We have also taken into consideration discussions that took place at the February 9-10, 2000 NRC Public Meeting ('*Comment Resolution on Part 70 Standard Review Plan*').

NEI appreciates the opportunity to have been able to review the March 2000 revisions to draft NUREG-1520 chapters. We are encouraged by the ongoing

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¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

resolution of industry concerns and with other improvements that have been made to this guidance document.

Please feel free to contact me should you have any questions concerning the proposed improvements in the attachment to this letter.

Sincerely,

Felix M. Killar, Jr.
Director, Material Licensees and Nuclear Insurance

c. Mr. Marvin S. Fertel
Dr. William F. Kane, Director NMSS

Ref: I:\Files\Part 70\SRP (March '00) Ch. 9 Comment Letter..msw

REVIEW OF MARCH 2000 REVISION OF NUREG-1520
CHAPTER 9: ENVIRONMENTAL PROTECTION

General Comments:

Draft SRP Chapter 9 still contains references to the requirements of 10 CFR 51 (Environmental Report, Environmental Assessment, Finding of No Significant Impact, Environmental Impact Statement). At the February 2000 Public Meeting on NUREG-1520, staff agreed that such references should be deleted from Chapter 9 and consolidated into a new *Environmental Assessment SRP* under preparation by an NRC Environmental Review Team. This simple removal of Part 51 requirements has been implemented in NUREG-1718 (*SRP for the Review of an Application for a Mixed Oxide (MOX) Fuel Fabrication Facility*), but for some unexplained reason, not from NUREG-1520. References to the ISA and ISA Summary are confused and frequently incorrect. There remain numerous prescriptive details in this chapter regarding sampling and analysis of environmental samples and no credit is given to the ISA in facilitating these undertakings. Inconsistencies in the use of terms defined in 10 CFR 70.4 is apparent. The SRP seeks identification of 'action levels' that are below the Part 20 concentrations, but which would require the plant operations to be shut down; so long as the plant is not exceeding the Part 20 concentrations, the plant should not be obliged to shut down, regardless of the action level compliance.

Outstanding Issues of Concern

- Part 51 References: NEI again encourages the NRC to delete from Chapter 9 the guidance pertaining to EP, EA, EIS, FONSI. As the Division of Waste Management (DWM) has responsibility for preparing NMSS environmental studies, guidance for reviewing the environmental report used to prepare an EA/FONSI or EIS is not needed in SRP Chapter 9. The NRC has prepared separate guidance for these issues.
- ISA and ISA Summary: Chapter 9 should direct the reviewer to use the ISA Summary as a source of information to evaluate the environmental protection program. There is also no need to reproduce detailed information in the license application that is contained in the ISA Summary. The distinction between the ISA and ISA Summary is generally incorrect (The editors of NUREG-1520 are encouraged to examine NUREG-1718 where the distinction between the ISA and ISA Summary is correctly made.)
- Terminology: acronyms should be defined when they are first used in the chapter (e.g. SER in §9.5.2). IROFS continue to be incorrectly referred to as 'controls'. References to accident sequences of differing risk levels are explained using old rule language (§9.5.2); correct terminology of 10 CFR 70.61 should be used.

Specific Concerns:

- §9.3 ('Areas of Review'):
 - (iv) 3rd sentence: correct term is 'ISA Summary', not 'ISA' (a review of the ISA, as implied, is not needed -- just the higher risk accident sequences).
- §9.3.1 ('Environmental Report'):
 - (i) delete this section as it pertains only to 10 CFR 51 requirements
- §9.3.2 ('Environmental Protection Measures'):
 - (i) 2nd sentence, 1st paragraph: clarify to read: "... *The NRC staff environmental review under Parts 20 and 70 is focused...*"
 - (ii) 2nd sentence, 1st paragraph: delete "... *and non-radioactive...*"
 - (iii) 1st sentence, 2nd paragraph: for clarification add the following words to the end of this sentence: "... and submit an ISA Summary in accordance with 10 CFR 70.65..."

(iv) 3rd sentence, 3rd paragraph: '*ISA Summary*' instead of '*ISA*'. Delete "...and non-radiological..." from this sentence as well.

(v) 4th paragraph: '*ISA Summary*' instead of '*ISA*'.

9.3.2.2 ('Effluent and Environmental Monitoring'):

(i) 4th item: should consider the results of the ISA in establishing the sampling program. Rewrite to read: "...-- discharge points for effluents that have the potential to contain SNM..."

(ii) 9th item: similar comment as in (i) above: the leak detection systems should be for ponds, etc. whose contents as shown by the ISA could contain SNM.
Modify

§9.3.2.3 ('ISA'):

(i) title of this section should be "*ISA Summary*"

(ii) 2nd item: for clarity add to the end of the 2nd item the words: "...that could exceed the performance requirements of 10 CFR 70.61..."

(iii) last point: correct term is '*IROFS*'. Change for consistency with the Rule.

§9.4 ('Acceptance Criteria'):

(i) 1st sentence: revise to read: "...*acceptance criteria for the environmental protection measures are described in Sections 9.4.1 and 9.4.2*..."

§9.4.1 ('Regulatory Requirements'):

(i) item (6): re-write sentence to read: "...*Part 70, specifically an application for a facility materials license (or license renewal or amendment) must contain an ISA Summary*..." Appear to be some missing words here. This item should also be clarified to state that the ISA Summary (and ISA) is not part of the formal license application. The ISA Summary is only docketed with the NRC and the ISA is maintained at the facility.

(iii) Item (7): delete as no longer applicable.

§9.4.3 ('Regulatory Acceptance Criteria'):

(i) delete the following sections as they are no longer applicable:

· §9.4.3.1 ('*Environmental Report*')
· §9.4.3.1.1 ('*Environmental Report*')
· §9.4.3.1.2 ('*Categorical Exclusion*')
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§9.4.3.2.1 ('Radiation Safety'):

(i) Item (2): 1st paragraph, 3rd sentence is not a sentence. Missing words?

(ii) Paragraph 2 seems unnecessary. The reviewer must only seek reasonable assurance that the performance goal will be met. Leave aside cost issues for the license applicant to consider in his deliberations as to what approaches meet the goals. Item (2), 2nd paragraph: replace '*engineering options*' by '*effluent controls*' for consistency with 1st paragraph.

(iii) Item (3). Last half of 1st sentence: clarify to read: "...*radiation protection program to maintain public doses ALARA*..."

(iv) Item (4): 1st sentence missing word: revise to read: "...*how facility design and procedures for operation*..."

(v) 2nd sentence is unclear. Modify to read: "...*Waste minimization programs are acceptable if the programs include*..."

§9.4.3.2.2 ('Section A: Effluent Monitoring'):

(i) item (2), 1st sentence: recommend replacing 'individual' by other words so as to ensure a distinction between the public and worker standards. Revise to read: "...*through a calculation of the TEDE to the member of the public outside the controlled area likely to receive the highest dose*..."

(ii) Item (2): recent issuance of Federal Guidance Report 13 makes Federal Guidance Report 11 obsolete. Reference to report 13 rather than report 11 and IRCP #30 is recommended.

(iii) Item (3): the ISA should be referenced in this section as an aid to establishing the discharge locations that are environmentally significant.

(iv) the continuous sampling required in item (4) seems too prescriptive

- (v) Item (5), 3rd sentence: the ISA should be referenced in this section as an aid to establishing sampling locations
- (vi) Item (9): suggests that the NRC should be able to mandate the shutdown of an operation when only an action level is exceeded. While a licensee may voluntarily suspend operations when such an action level is exceeded, so long as the licensee has not exceeded a Part 20 concentration limit, operations should be allowed to continue.
- (vii) Item (11): clarify to limit to "...radiological releases..."
 - §9.4.3.2.2 ('Section B: Environmental Monitoring'):
 - (i) item (2): recommend clarifying exactly what must be sampled and monitored. Rewrite sentence to read: "...Monitoring includes sampling and analyses for important pathways for anticipated types of radionuclides released from the facility into the environment from routine and non-routine operations, including air, surface water..."
 - (ii) the 'round robin' requirement is overly prescriptive. Delete.
 - (iii) Item (5): see comment for §9.4.3.2.2 (item 9) above.
 - (iv) Item (9): delete references to 'non-radiological releases'
 - §9.4.2.3 ('Integrated Safety Analysis'):
 - (i) title of section should be 'ISA Summary'
 - (ii) 1st sentence: for clarity's sake, append the following words to the end of this sentence: "...to perform an ISA and place an ISA Summary on the docket..."
 - (iii) 2nd sentence: 'ISA' should read 'ISA Summary'
 - (iv) first bullet should read: "...The ISA Summary provides...releases to the environment that could exceed the performance requirements of 10 CFR 70.61."
 - (v) third bullet: correct the terminology to agree with the Rule: "...Adequate IROFS are identified for each accident sequence whose consequences could exceed the performance requirements of 10 CFR 70.61. The IROFS (engineered or administrative) will prevent or mitigate high consequence events to an acceptable level...". Delete the last sentence as grading is a topic for Chapter 3.
 - (vi) Item (4): these are management measures! Use the correct 10 CFR 70 term. Revise sentence to read: "...adequate management measures are afforded to provide reasonable assurance that IROFS will perform..."
 - §9.5.1 ('Environmental Report'):
 - (i) delete this section -- no longer relevant
 - §9.5.2 ('Environmental Protection'):
 - (i) paragraph 1, 2nd sentence: define the SER acronym here -- first usage.
 - (ii) Paragraph 2: 1st & 2nd sentences: several corrections: "...the environmental specialist will review the ISA Summary. All accident sequences identified in the ISA Summary that can have significant environmental consequences due to releases of SNM to the unrestricted area will be reviewed..."
 - (iii) Paragraph 2: correct terminology to be consistent with that of 10 CFR 70.61 ('high consequence' and 'intermediate consequence' events), etc.
 - (iv) Paragraph 3: consistent terminology: "...evaluation of the ISA Summary requires...environmental review of the IROFS will be coordinated..."
 - (v) Paragraph 4, 2nd sentence: Supporting documentation will be maintained at the facility for the NRC staff to inspect at the facility. Revise to read: "...the reviewer should decide, as a result of the reviews, what supporting documents need to be examined..."
 - §9.6.1 ('Evaluation Findings, Introduction'):
 - (i) paragraph 1, 2nd sentence: correct to read: "...and the ISA Summary..."
 - (ii) paragraphs 3 & 4: delete as no longer applicable

§9.6.2 (NEPA):

- (i) delete section (including §9.6.2.1, §9.6.2.2 & §9.6.2.3) as they are no longer applicable.

§9.6.3 (Sample Safety Evaluation Report):

- (i) the example implies that an EIS is required. Sample language for an EA/FONSI should also be provided for completeness.