Commission, Washington DC 20555, Attn: Rulemakings and Adjudications Staff. A copy of such statement or request should also be served on the Chairman of this Atomic Safety and Licensing Board, T3 F23, U.S. Nuclear Regulatory Commission, Washington DC 20555.

Documents relating to this proceeding are available for public inspection at the Commission's Local Public Document Room, Greenfield Community College, 1 College Drive, Greenfield, Massachusetts 01301, as well as at the Commission's Public Document Room, 2120 L St. NW, Washington DC 20555.

Rockville, MD, April 6, 1999.

For the Atomic Safety and Licensing Board.

Charles Bechhoefer,

Chairman, Administrative Judge.

[FR Doc. 99–9037 Filed 4–9–99; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–029]

Yankee Atomic Electric Company; Yankee Nuclear Power Station; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering the issuance of an amendment to the Yankee Atomic Electric Company (YAEC or licensee) license for the Yankee Nuclear Power Station (YNPS or plant) approving the License Termination Plan (LTP). YAEC submitted the LTP by letter dated May 15, 1997, by two separate letters dated December 18, 1997, and a fourth letter dated January 23, 1998. The plant is located in Rowe Township, Franklin County, Massachusetts.

Environmental Assessment

Identification of Proposed Action

The proposed action is issuance of a license amendment approving the LTP. The LTP is required by regulations to include: (A) A site characterization; (B) identification of dismantlement activities not completed under the Post Shutdown Activities Report (PSDAR)/ Decommissioning Plan at the time of submitting the LTP; (C) plans for site remediation; (D) detailed plans for the final radiation survey; (E) a description of the end use of the site, if restricted [The YAEC application does not include restrictions; therefore, this item is not included in YAEC's LRP]; (F) an updated site-specific estimate of remaining decommissioning costs; and (G) a supplement to the environmental report describing any new information or significant environmental change associated with the licensee's proposed termination activities.

The Need for the Proposed Action

Issuance of an amendment approving the LTP will allow the licensee to implement its final radiation survey plan to allow for a determination as to whether the release criteria for unrestricted use of the site after the YAEC license is terminated have been met.

Environmental Impacts of the Proposed Action

Issuance of the amendment approving the LTP will not have any significant effect on accident risk and probability of any other environmental impact is extremely remote.

The staff's review of the four YAEC submittals of May 15, 1997, December 18, 1997 (2), and January 23, 1998, has concluded that the environmental and safety consequences of accidents that may potentially result in a radiological release are greatly decreased given the plant's permanently shutdown and defueled status and that the fuel has decayed for seven years since it was removed from the reactor.

The licensee does not propose any disposal or relocation of fuel by this action. The proposed action does not increase the probability or consequences of any accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable occupational or public radiation exposure. Therefore, the proposed action would result in no significant radiological environmental impact.

With regard to potential non-radiological impacts, the proposed action does not affect non-radiological plant effluents and has no other non-radiological environmental impact. Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed action.

Alternative to the Proposed Action

Because the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the action. Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

This action does not involve the use of any resources not evaluated in previous environmental reviews for the YNPS.

Agencies and Persons Consulted

On October 22, 1998, in accordance with its stated policy, the staff consulted with the Commonwealth of Massachusetts regarding the environmental impact of the proposed actions. The Commonwealth official had no comments.

Finding of No Significant Impact

Based upon the foregoing environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to this action, see the four YAEC submittals, referenced above, which are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW, Washington, DC 20555, and at the local public document room at the Greenfield Community College, 1 College Drive, Greenfield, Massachusetts 01301.

Dated at Rockville, Maryland, April 1, 1999.

For the Nuclear Regulatory Commission.

Robert A. Gramm,

Acting Director, Project Directorate IV & Decommissioning, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 99–9042 Filed 4–9–99; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

Draft Guidance on the Benchmark Dose Modeling for the Radiological Criteria for License Termination of Uranium Recovery Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of availability; opportunity for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is soliciting comments on draft guidance for the radium benchmark dose approach, associated with the final rule, ''Radiological Criteria for License

Termination of Uranium Recovery Facilities,'' that is in this publication. The guidance will be incorporated into the NRC final Standard Review Plan (SRP) for the Review of Reclamation Plans for Mill Tailings Sites and the SRP for In-Situ Leach Uranium Extraction License Applications. Public comments should be submitted within sixty (60) days of publication of this Notice.

SUPPLEMENTARY INFORMATION:

Background

In 10 CFR 40.4, uranium milling is defined as any activity resulting in byproduct material.[1] Therefore, Part 40, Appendix A, applies to in situ leach (ISL), heap leach, and ion-exchange facilities (i.e., uranium recovery (UR) facilities) that produce byproduct material, as well as to conventional uranium and thorium mills. The draft guidance only addresses UR facilities because there are no currently licensed or planned thorium mills.

Decommissioning of ISLs and mills are similar in that the type of soil and building contamination is the same, consisting mainly of residual radium (Ra-226) and uranium (U-nat). The applicable cleanup standards for soil radium in Criterion 6(6) address the main contaminant at uranium mills in the large areas (hundreds of acres) where windblown contamination from the tailings pile has occurred, and at ISLs in holding/settling ponds and process solution spills. In other mill and ISL site areas proximate to locations where radium contamination exists (e.g., under the mill or process building or in a yellowcake storage area), uranium would be the radionuclide of concern. Thorium (Th-230, the parent of Ra-226) would be the radionuclide of concern at some mill raffinate evaporation ponds.

Because Part 40, Appendix A, provides only decommissioning soil radium[2] and ground-water protection criteria, Criterion 6 (6) was amended to address criteria for residual radionuclides, other than radium in soil, for decommissioning of lands and structures at UR facilities. The final rule, ''Radiological Criteria for License Termination of Uranium Recovery Facilities,'' added a paragraph after the radium in soil criteria in Criterion 6(6), to read:

> Byproduct material containing concentrations of radionuclides other than radium in soil, and surface activity on remaining structures, must not result in a total effective dose equivalent (TEDE) exceeding the dose from cleanup of radium contaminated soil to the above standard (benchmark dose), and must be at levels which are as low as is reasonably achievable.
>
> If more than one residual radionuclide is present in the same 100-square-meter area, the sum of the ratios for each radionuclide, of concentration present to the concentration limit, will not exceed ''1'' (unity). A calculation of the peak potential annual TEDE within 1000 years to the average member of the critical group that would result from applying the radium standard (not including radon) on the site, must be submitted for approval. If the benchmark dose, before application of ALARA, exceeds 100 mrem/yr, the staff will consult the Commission before approving the decommissioning plan. This requirement for dose criteria does not apply to sites that have decommissioning plans for soil and structures approved before the effective date of this rule.

The final rule, ''Radiological Criteria for License Termination of Uranium Recovery Facilities,'' requires the use of the soil radium standard to develop a site-specific dose benchmark for the cleanup of residual radionuclides, other than radium, at UR sites. The radium benchmark approach ensures that the dose limit across the UR site will be equal for all radionuclides (other than radon).

The NRC-licensed sites subject to the new rule currently include four uranium mills (one operating, others in stand-by status), seven in situ leach (ISL) facilities, and any new UR facility licensed by NRC after promulgation of the rule (two ISL license applications are under review at NRC, also in the Agreement States, several ISLs in Texas could be affected by the rule). These sites are located in semi-arid (7–15 inches (18–39 cm) of precipitation), high evapo-transpiration, sparsely populated (1–5 people per sq. mile (0.4–3 per sq. km)) areas of New Mexico, Utah, Wyoming, and Nebraska. The land use around these facilities is predominately mining and ranching, and the potable water aquifer is usually 100–200 feet deep. Also, many of the sites have natural (in situ) uranium and/or radium deposits or mine pits that create a wide range of radium, thorium and uranium background values. Because of these unique properties and the specific regulations in 10 CFR Part 40, Appendix A, the UR facilities are exempt from the decommissioning criteria in Part 20 Subpart E, as specified in Section 20.1401(a).

The benchmark dose applies to surface cleanup (buildings or the top 15 cm (6 inches) of soil) of radionuclides other than radium and it is the estimated dose resulting from cleanup of areas to 5 pCi/g (0.19 Bq/g) Ra-226 at that site. For the small areas requiring the use of the radium subsurface soil standard, the estimated dose resulting from 15 pCi/g (0.56 Bq/g) Ra-226 at that site and for those areas, would be used. The same concept of regulation (using a Ra-228 benchmark dose) would be applicable to thorium mills, if any are licensed in the future.

The draft guidance on dose modeling and implementation of the radium benchmark approach was developed in conjunction with the final rule and the SRPs under development for uranium mill site reclamation and ISL licensing. The draft SRPs have already been published for comment as NUREG–1569 (NRC, 1997) and NUREG–1620 (NRC, 1999). After review of the comments received on the draft guidance, the final benchmark dose guidance will be incorporated into the final SRPs for UR facilities.

Draft Guidance: Standard Review Plan—Chapter 6

6.0 Decommissioning Plan for Soil and Buildings—The Radium Benchmark Dose Approach

A mill reclamation plan, required for licensing or license renewal, generally focuses on the tailings disposal cell and contains only brief mention of anticipated decommissioning activities. The licensee submits a detailed mill or ISL decommissioning plan and a soil cleanup/verification plan for NRC approval at least six months before decommissioning is to begin. The general requirements for a decommissioning plan, and the remediation and verification of soil Ra-226 contamination cleanup are addressed in Chapter 5 of the Standard Review Plan (SRP). This chapter discusses the evaluation of the radium benchmark dose approach for the cleanup of thorium and uranium, specifically dose modeling and its application to site cleanup activities that should be addressed in the decommissioning plan.

This chapter applies to those uranium recovery (UR) facilities licensed by the NRC and subject to the new requirements for cleanup of contaminated soil and buildings under 10 CFR Part 40, Appendix A, Criterion 6(6) (as amended in 1999). The facilities that did not have an approved

[1] Byproduct material means the tailings or waste produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface wastes resulting from uranium solution extraction processes.

[2] The concentration of radium, as a result of byproduct material, averaged over areas of 100 square meters, should not exceed the background level by more than 5 pCi/g (0.19 Bq/g) in the first 15 cm (6 inches) of soil, and 15 pCi/g (0.56 Bq/g) for every subsequent 15 cm (6 inch) layer.

decommissioning plan at the time the rule became final are required to reduce residual radioactivity, i.e., byproduct material, as defined by Part 40, to levels based on the potential dose, excluding radon, resulting from the application of the radium (Ra-226) standard at the site. This is referred to as the radium benchmark dose approach.

This chapter would also apply to any future thorium processing facilities and uranium heap leach operations, because Part 40 defines uranium milling as any activity resulting in byproduct material. This chapter also applies to any revised decommissioning plan submitted for NRC review and approval, after the final rule is effective. However, if a subject licensee can demonstrate that no contaminated buildings will remain, and that soil thorium or total uranium levels are not discernable from background, radium benchmark dose modeling is not required. Other aspects of decommissioning are addressed in Chapter 5 of this SRP.

In order for NRC staff to evaluate the radium benchmark dose modeling and the implementation of the modeling results, as proposed in the building and soil decommissioning plan, an understanding of the site conditions and site operations is essential. The required site information should be provided by the licensee, or relevant portions of previously submitted documents (e.g., environmental assessments, license renewal, reclamation plan, and characterization report) should be summarized and referenced. The information should include: (1) processes used at the facility; (2) type and location of possible contamination; (3) geologic and climatic data; and (4) surrounding land use information (also see Section 3 of Inspection Procedure 87654).

6.1 Radium Benchmark Dose Modeling

6.1.1 Areas of Review

In implementing the radium benchmark approach, the licensee calculates the peak potential dose for the site resulting from the 5 pCi/g (0.19 Bq/g) concentration of radium in the surface (top 15 cm (6 inches)) soil. The dose from the 15 pCi/g (0.56 Bq/g) subsurface radium limit would be calculated for any area that may require subsurface cleanup. The dose modeling review involves examination of the computer code or other calculations employed for the dose estimates, the code or calculation input values and assumptions, and the modeling results (data presentation).

6.1.2 Review Procedures

The radium benchmark dose modeling review consists of ascertaining that an acceptable dose modeling computer code or other type of calculation has been used; that input parameter values appropriate (reasonable considering long-term conditions and representative of the application) for the site have been used in the modeling; that a realistic (overly conservative is not acceptable as it would result in higher allowable levels of uranium or thorium which would not be ALARA) dose estimate is provided; and that the data presentation is clear and complete.

6.1.3 Acceptance Criteria

The radium benchmark dose modeling results will be acceptable if the dose assessment (modeling) meets the following criteria:

(1) Dose Modeling Codes and Calculations

The assumptions are considered reasonable for the site analysis and the calculations employed are adequate. Reference to documentation concerning the code or calculations is provided (for example, the RESRAD Handbook and Manual (Argonne, 1993a and b)).

The RESRAD code developed by the U.S. Department of Energy (version 5.82, 1998) (see website www.ead.anl.gov/resrad/html), may be acceptable for dose calculations because, while the RESRAD ground-water calculations have limitations, this does not impact the UR sites that have deep aquifers (ground-water exposure pathway is insignificant). The DandD code developed by the NRC (version 1.0, August 1998, see website *ftp://nwerftp.nwer.sandia.gov/nrc/DandD/;* also see the website at http://techconf.llnl.gov/radcri/dose-top.html) provides conservative default values, but does not allow for modeling subsurface soil contamination, and does not allow calculation of source removal due to soil erosion. Neither the RESRAD nor the DandD code would be adequate to model the dose from off-site contamination, but codes such as GenII would be considered.

If the code or calculation's assumptions are not acceptable for site conditions, adjustments have been made in the input to adequately modify these assumptions.

The RESRAD code assumes a circular contaminated zone. The shape factor (external gamma, screen R017) must be adjusted for a non-circular-shaped area.

The code or calculation provides an annual dose (total effective dose equivalent (TEDE)) estimate (mrem/yr).

The DandD code provides the annual dose, but RESRAD calculates the highest instantaneous dose. However, RESRAD results are acceptable for long-lived radionuclides that do not move rapidly out of surface soils.

(2) Input Parameter Values

The code/calculation input data are appropriate for the site and represent current or long-term conditions, whichever is more applicable to the time of maximum dose. When code default values are used, they are justified as appropriate (representative) for the site. Excessive conservatism (i.e., upper bound value) is not used as this would result in a higher dose and thus higher levels of uranium and thorium would be allowed to remain on site.

Previously approved MILDOS code input parameter values may not be appropriate, because derived operational doses in the restricted area may be an order of magnitude higher than acceptable doses for areas to be released for unrestricted use.

Site-specific input values are demonstrated to be average values of an adequate sample size. Confidence limits are provided for important parameters so that the level of uncertainty can be estimated for that input value. Alteration of input values considers that some values are inter-related (see draft NUREG–1549, Appendix C) (NRC, 1998a) and relevant parameters are modified accordingly. The preponderance of important parameter values are based on site measurements and not conservative estimates. One or more models consider the annual average range of parameter values likely to occur within the next 200-year time period, for important parameters that can reasonably be estimated. Some other considerations for the input parameter values are as follows:

a. Exposure Pathways and Scenarios for the Critical Group

The scenario(s) chosen to model the potential dose to the average member of the critical group[3] from residual radionuclides at the site reflects reasonable probable future land use. The licensee has considered ranching, mining, home-based business, light industry, and residential farmer scenarios, and has justified the scenarios modeled.

Based on one or more of these projected (within 200 years is reasonably foreseeable) land uses to define the critical group(s), the licensee

[3] As defined in 10 CFR Part 20, ''the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.''

has determined and justified what exposure pathways are probable for potential exposure of the critical group to residual radionuclides at the site.

Dairies are not likely to be established in the area of former UR facilities, and even if some milk cows were to graze in contaminated areas, the milk would probably be sent for processing (thus diluted), and not be consumed at the site. Therefore, milk consumption is not a likely ingestion exposure pathway. Also, a pond in the contaminated area providing a significant quantity of fish in the resident's diet is not likely, so the aquatic exposure pathway may not have to be modeled. However, the external gamma, plant ingestion, and inhalation pathways are likely to be important.

The radon pathway is excluded from the benchmark dose calculation as defined in Criterion 6(6) of Appendix A, to 10 CFR Part 40. This also reflects the approach in the main decommissioning rule (radiological criteria for license termination, Part 20 subpart E).

b. Source Term

If the RESRAD code is used, the input includes Pb-210 at the same input value as for Ra-226. The other radium progeny are automatically included in the code calculations. The chemical form of the contamination in the environment is considered in determining input values related to transport, or inhalation class (solubility in the lung) for dose conversion factors.

c. Time Periods

The time periods for calculation of the dose from soil Ra-226 include the 1000-year time frame. The calculated maximum annual dose and the year of occurrence is provided in the results.

d. Cover and Contaminated Zone

A cover depth of zero is used in the surface contamination model and a depth of at least 15 cm (6 inches) for the subsurface model. The values for area and depth of contamination are derived from site characterization data. The erosion rate value for the contaminated zone is less than the RESRAD default value because in regions drier than normal, the erosion rate is less, as discussed in the RESRAD Data Collection Handbook (Argonne, 1993a), and the value is justified. The soil properties are based on site data (sandy loam or sandy silty loam are typical for UR sites) and other input parameters are based on this demonstration of site soil type (see RESRAD Handbook pages, 23, 29, 77, and 105).

The evapo-transpiration coefficient for the semi-arid UR sites is between 0.6 and 0.99. The precipitation value is based on annual values averaged over at least 20 years, obtained from the site or a nearby meteorological station.

The irrigation rate value may be zero, or less than a code's default value, if supported by data on county or regional irrigation practices (e.g., irrigation water is obtained from a river not a well). The runoff coefficient value is based on the site's soil type, expected land use, and morphology of the region.

e. Saturated Zone

The dry bulk density, porosity, ''b'' parameter, and hydraulic conductivity values are based on local soil properties. The hydraulic gradient for an unconfined aquifer is approximately the slope of the water table. For a confined aquifer, it represents the difference in potentiometric surfaces over a unit distance.

If the RESRAD code is used, the nondispersion model parameter is chosen for areas greater than 1000 sq. meters (screen R014), and the well pump rate is based on irrigation, stock, or drinking water well pump rates in the area.

f. Uncontaminated and Unsaturated Strata

The thickness value represents the typical distance from the soil contamination to the saturated zone. Since the upper aquifer at UR sites is often of poor quality and quantity, the depth of the most shallow well used for irrigation or stock water in the region is chosen for the unsaturated zone thickness. A value of 18 meters (60 feet) is typical for most sites and 15 meters (50 feet) for the Nebraska site, but regional data are provided for justification. The density, porosity, and ''b'' parameter values are similar to those for the saturated zone or any changes are justified.

g. Distribution Coefficients and Leach Rates

The distribution coefficient (Kd) is based on the site's soil physical and chemical characteristics. The leach rate value of zero in the RESRAD code is acceptable as it allows calculation of the value. If a value greater than zero is provided, justification for the value is also provided.

h. Inhalation

An average inhalation rate value of approximately 8,395 m_3/yr is used for the activity assumed for the rancher or farmer scenario (based on Draft Letter Report, Sandia, 1998a). The mass loading for inhalation (air dust loading factor) value is justified based on the average level of airborne dust in the local region for similar activities as assumed in the model.

i. External Gamma

The shielding factor for gamma is in the range of 0.33 to 0.55 (PG–8–08, NRC 1994; DandD code screening default value), based mainly on the type (foundation, materials) of the house likely to be built on the site.

The time fractions for indoor and outdoor occupancy are similar to default values in RESRAD and draft guidance developed for the main decommissioning rule (NUREG/CR–5512, Volume 3, NRC, 1996b). For example, the staff would consider fraction values approximating 0.7 indoors and 0.15 outdoors for a resident working at home, and 0.5 outdoors and 0.25 indoors for the farmer scenario.

The site specific wind speed value is based on adequate site data (the average annual wind speed for the UR sites varies from 7 to 13 mph (3.1 to 5.5 meters/sec)). The maximum and annual average wind speed are also considered when justifying/evaluating proposed erosion rates.

j. Ingestion

Average consumption values (g/yr) for the various types of foods are based on average values as discussed in NUREG 5512, Volume 3, or the Sandia Draft Letter Reports (1998a and b), or are otherwise justified. Livestock ingestion parameters are default values, or are otherwise justified.

For sites with over 25 acres of contamination, the fraction of diet from the contaminated area is assumed to be 0.25 for the farmer scenario (Sandia 1998a), or is otherwise justified based on current or anticipated regional consumption practices for home-grown food. Because of the low level of precipitation in the UR facilities regions, extensive gardens or dense animal grazing are not likely, so the percentage of the diet from contaminated areas is likely to be lower than the code default value.

Note that the default plant mass loading factor in the DandD code can reasonably be reduced to 1 percent (Sandia, Draft Report, 1998c). The depth of roots is an important parameter for UR licensees using the RESRAD code. The value is justified based on the type of crops likely to be grown on the site in the future. For vegetable gardens, a value of 0.3 is more appropriate than the RESRAD default value of 0.9 meters that is reasonable for alfalfa or a similar deep-rooted plant.

(3) Presentation of Modeling Results

The radium benchmark dose modeling section of the decommissioning plan includes the code or calculation results as the maximum annual dose (TEDE) in mrem/yr, the year that this dose would occur, and the major exposure pathways by percentage of total dose. The modeling section also includes discussion of the likelihood of the various land use scenarios (reflecting the probable critical groups) modeled, and provides the variations in dose (dose distribution) created by changing key parameter values to reflect the range of dose values that are likely to occur on the site. The section also contains the results of a sensitivity analysis (RESRAD code can provide a sensitivity analysis via the graphics function) to identify the important parameters for each scenario.

Note: As indicated in Criterion 6(6), if a licensee submits a radium benchmark dose result that is 100 mrem/yr or higher, the staff will consult with the Commission before approving the decommissioning plan based on this value.

6.1.4 Evaluation Findings

If the staff review, as described in this section, results in the acceptance of the radium benchmark dose modeling, the following conclusions may be presented in the technical evaluation report (TER).

The staff has completed its review of the site benchmark dose modeling for the _____ uranium recovery facility. This review included an evaluation using the review procedures in the Title II SRP (NRC, 1999), Section 6.1.2, and the acceptance criteria outlined in SRP Section 6.1.3.

The applicant has provided an acceptable radium benchmark dose model and staff evaluation determines that: (1) the computer code or set of calculations used to model the benchmark dose is appropriate for the site; (2) input parameter values used in each model are site-specific or reasonably estimates; (3) the dose modeling information includes adequate estimates of dose uncertainty.

6.2 Implementation of the Benchmark Dose

6.2.1 Areas of Review

The results of the radium benchmark dose calculations are used to establish a surface and subsurface soil dose limit for residual radionuclides other than radium, as well as a limit for surface activity on structures that will remain after decommissioning. The staff reviews the licensee's conversion of the benchmark dose limit to soil concentration (pCi/g) or surface activity levels (dpm/100 cm^2) as a first step to provide cleanup levels. Alternatively, the licensee can derive the estimated dose from the uranium or thorium contamination (as discussed in Section 6.1.3) and compare this to the radium benchmark dose.

The cleanup levels adequately consider the ALARA principle and the unity rule to demonstrate that the Part 40.42 (k) requirements (the premises are suitable for release and reasonable effort has been made to eliminate residual radioactive contamination) can be met.

6.2.2 Review Procedures

The decommissioning plan section on cleanup criteria will be evaluated for appropriate conversion of the radium standard benchmark dose to cleanup limits for soil uranium and thorium and/or surface activity concentration. The plan will also be examined to ensure reasonable application of the ALARA principle to the cleanup guideline values.

6.2.3 Acceptance Criteria

(1) The soil concentration limit is derived from the site radium dose estimate. The modeling performed to estimate mrem/year per pCi/g of Th–230 and/or U-nat follows the criteria listed in Section 6.1.3. In addition, the U-nat source term is represented as percent activity by 49.14% U–238, 49.14% U–234, and 0.71% U–235, or is based on analyses of the ore processed. For a soil uranium criterion, the chemical toxicity is considered in deriving a soil concentration limit if soluble forms of uranium are present.

Detailed justification for the inhalation pathway parameters is provided, such as the determination of the chemical form in the environment, to support the inhalation class.

The derived Th–230 soil limit will not cause any 100 square meter (m^2) area to exceed the Ra–226 limit at 1000 years (i.e., current concentrations of 14 pCi/g Th–230 surface and 43 pCi/g subsurface, if Ra–226 is at approximately background levels).

(2) In conjunction with the activity limit, the ALARA principle is considered in setting cleanup levels (derived concentration guideline levels). The ALARA guidance in draft Regulatory Guide 4006 is considered.

In recent practice at mill sites, ALARA is implemented by removing at least two more inches (5 cm) of soil than is estimated to achieve the radium standard. (reduce any possible excess or borderline contamination). At mills, it is generally cheaper to remove more soil than to do sampling and testing that may indicate failure and require additional soil removal plus additional testing.

(3) The unity rule is applied to the cleanup if more than one residual radionuclide is present in a soil verification grid (100 m^2). This means that the sum of the ratios for each radionuclide of the concentration present/concentration limit may not exceed ''1'' (i.e., unity).

(4) The subsurface soil standard, if it is to be used, is applied to small areas of deep excavation where at least 15 cm (6 inches) of compacted clean fill is to be placed on the surface.

(5) The surface activity limit for remaining structures is appropriately derived using an approved code or calculation.

If the DandD code is used, data is provided to support that 10% or less of the activity is removable; otherwise the resuspension factor is scaled to reflect the site-specific removable fraction. Note that this code assumes that the contamination is only on the floor, which can be overly conservative. If the RESRAD–Build code is used, the modeled distribution of contamination on walls vs. floor is justified.

6.2.4 Evaluation Findings

If the staff review, as described in this section, results in the acceptance of the application of the radium benchmark dose modeling to the site cleanup criteria, the following conclusions may be presented in the technical evaluation report.

The staff has completed its review of the proposed implementation of the benchmark dose modeling results for the _____ uranium recovery facility. This review included an evaluation using the review procedures in the Title II SRP, Section 6.2.2, and the acceptance criteria outlined in SRP Section 6.2.3.

The licensee has provided an acceptable implementation of the benchmark dose modeling results to the proposed site cleanup activities and staff evaluation determines that: (1) The cleanup criteria will allow the licensee to meet Part 40.42(k) and Part 40, Appendix A, criterion 6(6) requirements; (2) the soil and structures of the decommissioned site will permit termination of the license because public health and the environment will not be adversely affected by any residual radionuclides.

6.3 References

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U.S. Nuclear Regulatory Commission, ''Decision Methods for Dose Assessment to Comply With Radiological Criteria for License Termination,'' Draft NUREG–1549, July 1998a.
U.S. Nuclear Regulatory Commission, Draft Regulatory Guide–4006, ''Demonstrating Compliance With the Radiological Criteria for License Termination,'' August 1998b.
U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, ''Draft Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act,'' NUREG–1620, January 1999.

Notice of Opportunity To Provide Comments

The Commission hereby provides notice of opportunity for public comment on the draft guidance addressing the radium benchmark approach for decommissioning UR facilities. Written comments should be sent, within sixty (60) days from the date of publication of this **Federal Register** Notice (FRN), to the Chief, Rule and Directives Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001. Comments may also be provided electronically on the NRC Uranium Recovery Branch website and the final rule FRN may also be viewed (http://www.nrc.gov/NRC/NMSS/URANIUM/guidance.htm).

FOR FURTHER INFORMATION CONTACT: Ms. Elaine S. Brummett, Uranium Recovery and Low-Level Waste Branch, Mail Stop T7–J9, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555–0001. Telephone 301/415–6606.

Dated at Rockville, Maryland, this 1st day of April 1999.

For the Nuclear Regulatory Commission.

N. King Stablein,

Acting Chief, Uranium Recovery and Low-Level Waste Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

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NUCLEAR REGULATORY COMMISSION

[Docket No. 40–7580]

Notice of Consideration of Amendment Request for Decommissioning the Fansteel Facility in Muskogee, OK, and Opportunity for Hearing

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of Consideration of Amendment Request for Decommissioning the Fansteel Facility in Muskogee, Oklahoma and Opportunity for Hearing.

The U.S. Nuclear Regulatory Commission (the NRC) is considering issuance of an amendment to Source Material License No. SMB–911, issued to Fansteel, Inc. (the licensee), for the decommissioning of its facility in Muskogee, Oklahoma. The licensee requested the amendment in a letter dated July 6, 1998, and supplemented by a letter dated December 4, 1998.

The Fansteel site contains large amounts of soil contaminated with uranium and thorium. The licensee has indicated in its proposed Decommissioning Plan that, pursuant to 10 CFR 20.1401(b)(3), portions of the site will be remediated in accordance with Option 1 of the NRC's Branch Technical Position (BTP), ''Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations.'' The Decommissioning Plan also references an in-situ disposal area that would be built on a separate portion of the site. The NRC is not considering this proposal as part of the proposal for remediation of portions of the site under Option 1 of the BTP. The in-situ disposal area is considered as a separate plan and is not accepted at this time for lack of information in accordance with Subpart E of the license termination rule (10 CFR Part 20, Subpart E).

Radioactive contamination at Fansteel site is the result of previous operations. Previous operations at the Fansteel facility involved acid digestion of feed materials and have resulted in large volumes of soil and residues contaminated with natural uranium and thorium. Fansteel is currently authorized to reprocess these residues, as well as residues from site wastewater treatment operations, to further extract tantalum, niobium, and scandium to produce industrial products. Reprocessing will enable Fansteel to reduce the volume of radioactive waste requiring off-site disposal. The licensee's plan is to decommission the entire site after approximately 10 to 12 years of residue reprocessing.

Prior to the issuance of the proposed amendment, the NRC will have made findings required by the Atomic Energy Act of 1954, as amended, and the NRC's regulations. These findings will be documented in a Safety Evaluation Report and an Environmental Assessment. Approval of the decommissioning plan will be documented in an amendment to SMB–911.

The NRC hereby provides that this is a preceding on an application for amendment of a license falling within the scope of Subpart L, ''Informal Hearing Procedures for Adjudication in Materials Licensing Proceedings,'' of NRC's rules and practice for domestic licensing proceedings in 10 CFR Part 2. Pursuant to Section 2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing in accordance with Section 2.1205(d). A request for a hearing must be filed within thirty (30) days of the date of publication of the **Federal Register** notice.

The request for a hearing must be filed with the Office of Secretary either:

1. By delivery to the Docketing and Service Branch of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852–2738; or