NOVEMBER 2012 PRELIMINARY RULE LANGUAGE FOR PROPOSED REVISIONS TO LOW-LEVEL WASTE DISPOSAL REQUIREMENTS (10 CFR PART 61)
[NRC-2011-0012]

Please note: Underline texts are preliminary rule texts and are not found in the current 10 CFR Part 61 regulations.

List of Subjects

10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Source material, Special nuclear material, Waste treatment and disposal.

10 CFR Part 61

Criminal penalties, Low-level waste, Nuclear materials, Reporting and recordkeeping requirements, Waste treatment and disposal.

1. In 10 CFR Part 20, Appendix G:

a. Revise sections II (Certification), III.A, and III.C (Control and Tracking) to read as follows:

II. Certification

An authorized representative of the waste generator, processor, or collector shall certify by signing and dating the shipment manifest that the transported materials are <u>acceptable for disposal</u>, properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the Commission. A collector <u>who signs</u> the certification is certifying that

nothing has been done to the collected waste that would invalidate the waste generator's certification.

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III. Control and Tracking

A. * * *

1. Prepare all wastes according to the land disposal facility's criteria for waste acceptance developed in accordance with § 61.58 of this chapter;

2. Label each disposal container (or transport package if potential radiation hazards preclude labeling of the individual disposal container) of waste in accordance with § 61.57 of this chapter;

3. Conduct a quality assurance program to assure compliance with the land disposal facility's criteria for waste acceptance that has been developed in accordance with § 61.58 of this chapter (the program must include management evaluation of audits);

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C. * * *

3. Prepare all wastes according to the land disposal facility's criteria for waste acceptance developed in accordance with § 61.58 of this chapter;

4. Label each package of waste in accordance with § 61.57 of this chapter;

5. Conduct a quality assurance program to assure compliance with the land disposal facility's criteria for waste acceptance that has been developed in accordance with § 61.58 of this chapter (the program shall include management evaluation of audits);

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2. In § 61.2:

a. Revise the definition of *Inadvertent intruder*; *Site closure and stabilization, Stability,* and

b. Add the definitions of *Compliance period, Intruder assessment*, *Long-lived waste*, *Performance assessment,* and *Performance period* in alphabetical order to read as follows:

§ 61.2 Definitions.

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Compliance period is the time during which compliance with the performance objectives specified in § 61.41, § 61.42, and § 61.44 must be demonstrated. This period ends 10,000 years after closure of the disposal facility.

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Inadvertent Intruder means a person who might occupy the disposal site after closure and engage in normal activities, such as agriculture, dwelling construction, resource exploration or exploitation (e.g., well drilling) or other reasonably foreseeable pursuits that might unknowingly expose the person to radiation from the waste.

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Intruder assessment is an analysis that (1) assumes an inadvertent intruder occupies the site or contacts the waste and engages in normal activities or other reasonably foreseeable pursuits that might unknowingly expose the person to radiation from the waste; (2) examines the capabilities of intruder barriers to inhibit an inadvertent intruder's contact with the waste or to

limit the inadvertent intruder's exposure to radiation; and (3) estimates an inadvertent intruder's potential annual dose, considering associated uncertainties.

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Long-lived waste means (1) waste where more than ten percent of the initial radioactivity remains after 10,000 years (e.g., long-lived parent), (2) waste where the peak activity from progeny occurs after 10,000 years (e.g., long-lived parent – short-lived progeny), or (3) waste where ten percent of the peak activity within 10,000 years remains after 10,000 years (e.g., short-lived parent – long-lived progeny).

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Performance assessment is an analysis that (1) identifies the features, events, and processes that might affect the disposal system; (2) examines the effects of these features, events, and processes on the performance of the disposal system; and (3) estimates the annual dose to any member of the public caused by all significant features, events, and processes.

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Performance period is the time after the compliance period for disposal facilities during which the performance objectives specified in §§ 61.41(b) and 61.42(b) must be met.

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Site closure and stabilization means those actions that are taken upon completion of operations that prepare the disposal site for custodial care and that assure that the disposal site will remain stable and will not need ongoing active maintenance

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Stability means structural stability.

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3. In § 61.7:

a. Revise this section to read as follows:

§ 61.7 Concepts.

(a) *The disposal facility*. (1) Part 61 is intended to apply to land disposal of radioactive waste and not to other methods such as sea or extraterrestrial disposal. Part 61 contains procedural requirements and performance objectives applicable to any method of land disposal. It contains specific technical requirements for near-surface disposal of radioactive waste, a subset of land disposal, which involves disposal in the uppermost portion of the earth, approximately 30 meters. Near-surface disposal includes disposal in engineered facilities that may be built totally or partially above-grade provided that such facilities have protective earthen covers. Near-surface disposal does not include disposal facilities that are partially or fully above-grade with no protective earthen cover, which are referred to as “above-ground disposal." Burial deeper than 30 meters may also be satisfactory. Technical requirements for alternative methods may be added in the future. Alternative methods of disposal may be approved on a case-by-case basis as needed under § 61.6.

(2) Near-surface disposal of radioactive waste takes place at a near-surface disposal facility, which includes all of the land and buildings necessary to carry out the disposal. The disposal site is that portion of the facility used for disposal of waste and consists of disposal units and a buffer zone. A disposal unit is a discrete portion of the disposal site into which waste is placed for disposal. A buffer zone is a portion of the disposal site that is controlled by the licensee and that lies under

the site and between the boundary of the disposal site and any disposal unit. It provides controlled space to establish monitoring locations, which are intended to provide an early warning of radionuclide movement. An early warning allows a licensee to perform any mitigation that might be necessary. In choosing a disposal site, site characteristics should be considered in terms of the indefinite future, take into account the radiological characteristics of the waste, and be evaluated for at least a 500-year timeframe.

(b) Performance objectives. Disposal of radioactive waste in land disposal facilities has the following safety objectives: protection of the general population from releases of radioactivity, protection of inadvertent intruders, protection of individuals during operations, and ensuring stability of the site after closure. Achieving these objectives depends upon many factors including the design of the land disposal facility, operational procedures, characteristics of the environment surrounding the land disposal facility, and the radioactive waste acceptable for disposal.

(c) Technical analyses. (1) Demonstrating compliance with the performance objectives requires assessments of the site-specific factors including engineering design, operational practices, site characteristics, and radioactive waste acceptable for disposal. Technical analyses assess the impact of site-specific factors on the performance of the disposal facility and the site environment both during the operational period, as in the analysis for protection of individuals during operations and, importantly for disposal of radioactive waste, over the long term, as in the analyses for protection of the general population from releases of radioactivity, protection of inadvertent intruders, and stability of the disposal site after closure.

(2) A performance assessment is an analysis that is required to demonstrate protection of the general population from releases of radioactivity. A performance assessment identifies the specific characteristics of the disposal site (e.g., hydrology, meteorology, geochemistry, biology, and geomorphology); degradation, deterioration, or alteration processes of the

engineered barriers (including the waste form and container); and interactions between the site characteristics and engineered barriers that might affect performance of the disposal facility. A performance assessment examines the effects of these processes and interaction on the ability of the disposal facility to limit waste releases and estimates the annual dose to a member of the public for comparison with the appropriate performance objective of Subpart C of this part.

(3) It is possible, but unlikely, that persons might occupy the site in the future and engage in normal pursuits without knowing that they were receiving radiation exposure. These persons are referred to as inadvertent intruders. Protection of inadvertent intruders can involve two principal controls: institutional control over the site after operations by the site owner to ensure that no such occupation or improper use of the site occurs; or, designating which waste could present an unacceptable risk to an intruder, and disposing of this waste in a manner that provides some form of intruder barrier that is intended to prevent contact with the waste. These regulations incorporate both types of protective controls.

(4) Demonstrating protection of inadvertent intruders requires an assessment of potential radiological exposures should an inadvertent intruder occupy the disposal facility following a loss of institutional controls after closure. The results of the intruder assessment are compared with the appropriate performance objective of Subpart C of this part. An intruder assessment can employ a similar methodology to that used for a performance assessment, but the intruder assessment must assume that an inadvertent intruder occupies the disposal site following a loss of institutional controls after closure, and engages in activities that unknowingly expose the intruder to radiation from the waste.

(5) Waste with significant concentrations and quantities of long-lived radionuclides may require special processing, design, or site conditions for disposal. Demonstrating protection of the general population from releases of radioactivity and inadvertent intruders for the disposal of this waste requires an assessment of long-term impacts. Performance period analyses are

used to evaluate the suitability of this waste for disposal on a case-by-case basis. In general, for disposal facilities with limited quantities of long-lived waste, performance period analyses are not necessary to demonstrate protection of the general population from releases of radioactivity and protection of inadvertent intruders. However, there may be site-specific conditions that require licensees to assess disposal facilities beyond the compliance period even when long-lived waste is limited. These conditions should be evaluated on a case-by-case basis to determine whether analyses beyond the compliance period would be required.

(d) Waste acceptance. Demonstrating compliance with the performance objectives also requires a determination of criteria for the acceptance of waste. The criteria can be determined from the results of the site-specific analyses that demonstrate compliance with the performance objectives for any land disposal facility or, for a near-surface disposal facility, the waste classification requirements of Subpart D of this part.

(e) Waste classification and near-surface disposal. (1) A cornerstone of the waste classification system is stability—stability of the waste and the disposal site—which minimizes the access of water to waste that has been emplaced and covered. Limiting the access of water to the waste minimizes the migration of radionuclides, which may avoid the need for long-term active maintenance and reduces the potential for release of radioactivity into the environment. While stability is desirable, it isn't necessary from a health and safety standpoint for most waste because the waste doesn't contain sufficient radionuclides to be of concern. This low-activity waste (e.g., ordinary trash-type waste) tends to be unstable, which can become a problem with higher activity waste or long-lived, low-activity waste. If lower activity waste is mixed with the higher activity waste, the deterioration of unstable waste could lead to the failure of the system. The failure of the system could permit water to penetrate the disposal unit, which may cause problems with the higher activity waste. Therefore, to avoid placing requirements for a stable waste form on relatively innocuous waste, these wastes have been classified as Class A waste.

Unstable Class A waste will be disposed of in separate disposal units at the disposal site. However, stable Class A waste may be disposed of with other classes of waste. Higher activity wastes that must be stable for proper disposal are classed as Class B and C waste. To the extent that it is practicable, Class B and C waste forms or containers should be designed to be stable (i.e., to maintain gross physical properties and identity) over 300 years. The stability of long-lived waste may be more uncertain and require more robust technical evaluation of the processes that are unlikely to affect the ability of the disposal system to isolate short-lived waste. For long-lived waste and certain radionuclides prone to migration, a maximum disposal site inventory based on the characteristics of the disposal site may be established to limit potential exposure.

(2) Institutional control of access to the site is required for up to 100 years. This permits the disposal of Class A and Class B waste without special provisions for intrusion protection, since these classes of waste contain types and quantities of radioisotopes that will decay during the 100-year period and will present an acceptable hazard to an intruder. The government landowner administering the active institutional control program has flexibility in controlling site access, which may include allowing productive uses of the land provided the integrity and long-term performance of the site are not affected.

(3) Waste that will not decay to levels that present an acceptable hazard to an intruder within 100 years is designated as Class C waste. Class C waste must be stable and be disposed of at a greater depth than the other classes of waste so that subsequent surface activities by an intruder will not disturb the waste. Where site conditions prevent deeper disposal, intruder barriers such as concrete covers may be used. The effective life of these intruder barriers should be 500 years. A maximum concentration of radionuclides is specified in Tables 1 and 2 of § 61.55 so that at the end of the 500 year period, the remaining radioactivity will be at a level that does not pose an unacceptable hazard to an inadvertent intruder or to

public health and safety. Waste with concentrations above these limits is generally unacceptable for near-surface disposal. There may be some instances where waste with concentrations greater than permitted for Class C would be acceptable for near-surface disposal with special processing or design. Disposal of this waste will be evaluated on a case-by-case basis with the long-term analyses required in § 61.13(e).

(4) Regardless of the classification, some waste may require enhanced controls or limitations at a particular land disposal facility to provide reasonable assurance that the waste will not present an unacceptable risk over the compliance period. A performance assessment and an intruder assessment are used to identify these enhanced controls and limitations, which are site-and waste-specific. Enhanced controls or limitations could include additional limits on waste concentration or total activity, more robust intruder barriers (such as burial below 30 meters), and waste-specific stability requirements. These enhanced controls or limitations could mitigate the uncertainty associated with the evolutionary effects of the natural environment and the disposal facility performance over the compliance period.

(f) The licensing process. (1) During the preoperational phase, the potential applicant goes through a process of disposal site selection by selecting a region of interest, examining a number of possible disposal sites within the area of interest, and narrowing the choice to the proposed site. Through a detailed investigation of the disposal site characteristics the potential applicant obtains data on which to base an analysis of the disposal site's suitability. Along with these data and analyses, the applicant submits other more general information to the Commission in the form of an application for a license for land disposal. The Commission's review of the application is in accordance with administrative procedures established by rule and may involve participation by affected State governments or Indian tribes. While the proposed disposal site must be owned by a State or the Federal government before the Commission will issue a license, it may be privately owned during the preoperational phase if

suitable arrangements have been made with a State or the Federal government to take ownership in fee of the land before the license is issued.

(2) During the operational phase, the licensee carries out disposal activities in accordance with the requirements of these regulations and any conditions on the license. Periodically, the authority to conduct the above ground operations and dispose of waste will be subject to a license renewal, at which time the operating history will be reviewed and a decision made to permit or deny continued operation. When disposal operations are to cease, the licensee applies for an amendment to the site license to permit site closure. After final review of the licensee's site closure and stabilization plan, the Commission may approve the final activities necessary to prepare the disposal site so that ongoing active maintenance of the site is not required during the period of institutional control.

(3) During the period when the final site closure and stabilization activities are being carried out, the licensee is in a disposal site closure phase. Following that, for a period of five years, the licensee must remain at the disposal site for a period of post-closure observation and maintenance to assure that the disposal site is stable and ready for institutional control. The Commission may approve shorter or require longer periods if conditions warrant. At the end of this period, the licensee applies for a license transfer to the disposal site owner.

(4) After a finding of satisfactory disposal site closure, the Commission will transfer the license to the State or Federal government that owns the disposal site. If the Department of Energy is the Federal agency administering the land on behalf of the Federal government the license will be terminated because the Commission lacks regulatory authority over the Department for this activity. Under the conditions of the transferred license, the owner will carry out a program of monitoring to assure continued satisfactory disposal site performance, physical surveillance to restrict access to the site, and carry out minor custodial activities. During this period, productive uses of the land might be permitted if those uses do not affect the stability of

the site and its ability to meet the performance objectives. At the end of the prescribed period of institutional control, the license will be terminated by the Commission.

(g) Implementation of dose methodology. The dose methodology used to demonstrate compliance with the performance objectives of this part shall be consistent with the dose methodology specified in the standards for radiation protection set forth in Part 20 of this chapter. After the effective date of these regulations, applicants and licenses may use updated factors, which have been issued by consensus scientific organizations and incorporated by the U.S. Environmental Protection Agency into Federal radiation guidance. Additionally, applicants and licensees may use the most current scientific models and methodologies (e.g., those accepted by the International Commission on Radiological Protection) appropriate for site-specific circumstances to calculate the dose. The weighting factors used in the calculation of the dose must be consistent with the methodology used to perform the calculation.

4. In § 61.12:

a. Revise the introductory text and paragraphs (a) and (i) to read as follows:

§ 61.12 Specific technical information.

The specific technical information must include the following to demonstrate that the performance objectives of Subpart C of this part and the applicable technical requirements of Subpart D of this part will be met:

(a) A description of the natural and demographic disposal site characteristics as determined by disposal site selection and characterization activities. The description must include geologic, geotechnical, geochemical, geomorphological, hydrologic, meteorologic, climatologic, and biotic features of the disposal site and vicinity.

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(i) A description of the kind, amount, and specifications of the radioactive material proposed to be received, possessed, and disposed of at the land disposal facility, including the criteria for acceptance of waste for disposal.

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5. In § 61.13:

a. Revise paragraphs (a) and (b); and

b. Add paragraph (e) to read as follows:

§ 61.13 Technical analyses

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(a) A performance assessment that demonstrates that there is reasonable assurance that the exposure to humans from the release of radioactivity will meet the performance objective set forth in § 61.41(a). A performance assessment shall:

(1) Consider only features, events, and processes that might affect demonstrating compliance with § 61.41(a). The features, events, and processes considered must represent a range of phenomena with both beneficial and adverse effects on performance, and must consider the specific technical information required in § 61.12(a) through (i). A technical basis for either inclusion or exclusion of specific features, events, and processes must be provided. Specific features, events, and processes must be evaluated in detail if their omission would significantly affect meeting the performance objective specified in § 61.41(a).

(2) Consider the likelihood of disruptive or other unlikely features, events, or processes for comparison with the limits set forth in § 61.41(a).

(3) Provide a technical basis for either inclusion or exclusion of degradation, deterioration, or alteration processes (e.g., of the engineered barriers, waste form, site characteristics) and interactions between the disposal facility and site characteristics that might affect the facility's ability to meet the performance objective in § 61.41(a).

(4) Provide a technical basis for models used in the performance assessment such as comparisons made with outputs of detailed process-level models or empirical observations (e.g., laboratory testing, filed investigations, and natural analogs).

(5) Evaluate pathways including air, soil, groundwater, surface water, plant uptake, and exhumation by burrowing animals.

(6) Account for uncertainties and variabilities in the projected behavior of the disposal system (e.g., disposal facility, natural system, and environment).

(7) Consider alternative conceptual models of features and processes that are consistent with available data and current scientific understanding, and evaluate the effects that alternative conceptual models have on the understanding of the performance of the disposal facility.

(8) Identify and differentiate between the roles performed by the natural disposal site characteristics and design features of the disposal facility in limiting releases of radioactivity to the general population.

(b) Analyses of the protection of inadvertent intruders that demonstrate there is reasonable assurance the waste acceptance criteria developed in accordance with § 61.58 will be met, adequate barriers to inadvertent intrusion will be provided, and any inadvertent intruder will not be exposed to doses that exceed the limits set forth in § 61.42(a) as demonstrated in an intruder assessment. An intruder assessment shall:

(1) Assume that an inadvertent intruder occupies the disposal site at any time during the compliance period after the period of institutional controls ends, and engages in normal activities including agriculture, dwelling construction, resource exploration or exploitation (e.g.,

well drilling), or other reasonably foreseeable pursuits that unknowingly expose the intruder to radiation from the waste.

(2) Identify adequate barriers to inadvertent intrusion that inhibit contact with the waste or limit exposure to radiation from the waste, and provide a basis for the time period over which barriers are effective.

(3) Account for uncertainties and variabilities.

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(e) Analyses that assess how the disposal facility and site characteristics limit the potential long-term radiological impacts, consistent with available data and current scientific understanding. The analyses shall only be required for land disposal facilities with long-lived waste that contains alpha-emitting radionuclides with average concentrations exceeding 10 nCi/g or radionuclides with average concentrations exceeding one tenth of the values listed in Table 1 of § 61.55, or if necessitated by site-specific factors including engineering design, operational practices, and site characteristics. The analyses must identify and describe the features of the design and site characteristics that will demonstrate that the performance objectives set forth in §§ 61.41(b) and 61.42(b) will be met.

6. In § 61.23:

a. Revise paragraphs (b), (c), (d), and (e) to read as follows:

§ 61.23 Standards for issuance of a license.

(a) * * *

(b) The applicant's proposed disposal site, disposal design, waste acceptance criteria, land disposal facility operations (including equipment, facilities, and procedures), disposal site closure, and postclosure institutional control demonstrate that they are adequate to protect the public health and safety because they provide reasonable assurance that the general population will be protected from releases of radioactivity as specified in the performance objective in § 61.41.

(c) The applicant's proposed disposal site, disposal site design, waste acceptance criteria, land disposal facility operations (including equipment, facilities, and procedures), disposal site closure, and postclosure institutional control demonstrate that they are adequate to protect the public health and safety because they provide reasonable assurance that individual inadvertent intruders are protected in accordance with the performance objective in § 61.42.

(d) The applicant's proposed waste acceptance criteria and land disposal facility operations (including equipment, facilities, and procedures), demonstrate that they are adequate to protect the public health and safety because they provide reasonable assurance that the standards for radiation protection set out in part 20 of this chapter will be met.

(e) The applicant's proposed disposal site, disposal site design, waste acceptance criteria, land disposal facility operations, disposal site closure, and postclosure institutional control demonstrate that they are adequate to protect the public health and safety because they provide reasonable assurance that long-term stability of the disposed waste and the disposal site will be achieved and will eliminate to the extent practicable the need for ongoing active maintenance of the disposal site following closure.

7. In § 61.25:

a. Revise paragraph (a) to read as follows:

§ 61.25 Changes.

(a) Except as provided for in specific license conditions, the licensee shall not make changes in the land disposal facility or procedures described in the license application. The license will include conditions restricting subsequent changes to the facility and the procedures authorized that are important to public health and safety. These license restrictions will fall into three categories of descending importance to public health and safety as follows: (1) those features and procedures that may not be changed without (i) 60 days prior notice to the Commission, (ii) 30 days notice of opportunity for a prior hearing, and (iii) prior Commission approval; (2) those features and procedures that may not be changed without (i) 60 days prior notice to the Commission, and (ii) prior Commission approval; and (3) those features and procedures that may not be changed without 60 days prior notice to the Commission. Features and procedures falling in paragraph (a)(3) of this section may not be changed without prior Commission approval if the Commission so orders, after having received the required notice.

8. In § 61.28:

a. Revise paragraph (a)(2) to read as follows:

§ 61.28 Contents of application for closure.

(a) * * *

(2) The results of tests, experiments, or any other analyses relating to backfill or excavated areas, closure and sealing, waste migration and interaction with emplacement media, or any other tests, experiments, or analysis pertinent to the long-term containment of emplaced

waste within the disposal site, including revised analyses for § 61.13 using the details of the final closure plan and waste inventory.

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9. In § 61.41:

a. Revise this section to read as follows:

§ 61.41 Protection of the general population from releases of radioactivity.

(a) Concentrations of radioactive material that may be released to the general environment in ground water, surface water, air, soil, plants, or animals must not result in an annual dose exceeding an equivalent of 0.25 milliSievert (25 millirems) to any member of the public within the compliance period. Reasonable effort should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable during the compliance period. Compliance with this paragraph must be demonstrated through analyses that meet the requirements specified in § 61.13(a).

(b) Reasonable effort should be made to maintain releases of radioactivity from a disposal facility to the general environment as low as reasonably achievable at any time during the performance period. Compliance with this paragraph must be demonstrated through analyses that meet the requirements specified in § 61.13(e).

10. In § 61.42:

a. Revise this section to read as follows:

§ 61.42 Protection of inadvertent intruders.

(a) Design, operation, and closure of the land disposal facility must ensure protection of any inadvertent intruder into the disposal site who occupies the site or contacts the waste at any time after active institutional controls over the disposal site are removed. The annual dose must not exceed 5 milliSieverts (500 millirems) to any inadvertent intruder within the compliance period. Compliance with this paragraph must be demonstrated through analyses that meet the requirements specified in § 61.13(b).

(b) Reasonable effort should be made to maintain exposures to any inadvertent intruder as low as reasonably achievable at any time during the performance period. Compliance with this paragraph must be demonstrated through analyses that meet the requirements specified in § 61.13(e).

11. In § 61.52:

a. Revise paragraph (a)(3); and

b. Add paragraph (a)(12) to read as follows:

§ 61.52 Land disposal facility operation and disposal site closure.

(a) * * *

(3) All wastes shall be disposed of in accordance with the requirements of paragraphs (a)(4) through (12) of this section.

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(12) Waste will be disposed of consistent with the description provided in § 61.12(f), and the technical analyses required by § 61.13.

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12. In § 61.55:

a. Revise paragraph (a)(6) to read as follows:

§ 61.55 Waste classification.

(a) * * *

(6) Classification of wastes with radionuclides other than those listed in Tables 1 and 2 of this section. If radioactive waste does not contain any nuclides listed in either Table 1 or 2 of this section, it is Class A.

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13. In § 61.56:

a. Revise paragraph (a) to read as follows:

§ 61.56 Waste characteristics.

(a) The following requirements are minimum requirements for all waste and are intended to facilitate handling at the disposal site and provide protection of health and safety of personnel at the disposal site.

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14. In § 61.57:

a. Revise this section to read as follows:

§ 61.57 Labeling.

Each package of waste must be clearly labeled to identify any information required by the land disposal facility's criteria for waste acceptance developed according to § 61.58 of this part. Each package of waste disposed in a land disposal facility with waste acceptance criteria developed in accordance with the waste classification requirements must indicate whether it is Class A waste, Class B waste, or Class C waste, in accordance with § 61.55.

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15. In § 61.58:

a. Revise this section to read as follows:

§ 61.58 Waste acceptance.

(a) Waste acceptance criteria. Each applicant shall provide, for approval by the Commission, criteria for the acceptance of waste for disposal that provide reasonable assurance of compliance with the performance objectives of Subpart C of this part. Waste acceptance criteria shall specify, at a minimum, the following:

(1) Allowable activities and concentrations of specific radionuclides. Allowable activities and concentrations shall be developed from the technical analyses required by either § 61.13 for any land disposal facility or the waste classification requirements set forth in § 61.55 for a near-surface disposal facility.

(2) Acceptable waste form characteristics and container specifications. The characteristics and specifications shall meet the minimum requirements for waste characteristics set forth in § 61.56(a) for all waste, and the requirements in § 61.56(b) for waste that requires stability to demonstrate compliance with the performance objectives of Subpart C of this part.

(3) Restrictions or prohibitions on waste, materials, or containers that might affect the facility's ability to meet the performance objectives in Subpart C of this part.

(b) Waste characterization. Each applicant shall provide, for Commission approval, acceptable methods for characterizing the waste for acceptance. The methods shall identify the characterization parameters and acceptable uncertainty in the characterization data. The following information, at a minimum, shall be required to characterize waste:

(1) Physical and chemical characteristics;

(2) Volume, including the waste and any stabilization or absorbent media;

(3) Weight of the container and contents;

(4) Identities, activities, and concentrations;

(5) Characterization date;

(6) Generating source; and

(7) Any other information needed to support the technical analyses set forth in § 61.13.

(c) Waste certification. Each applicant shall provide, for Commission approval, a program to certify that waste meets the acceptance criteria prior to receipt at the disposal facility. The certification program shall:

(1) Designate authority to certify and receive waste for disposal at the disposal facility.

(2) Specify documentation required for waste characterization, shipment (including the requirements set forth in Appendix G of 10 CFR part 20), and certification.

(3) Identify records, reports, tests, and inspections that are necessary to maintain to demonstrate compliance with the requirements in § 61.80.

(4) Provide approaches for managing waste that has been certified as meeting the waste acceptance criteria in a manner that maintains its certification status.

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16. In § 61.80:

a. Revise paragraphs (i)(1) and (i)(2) to read as follows:

§ 61.80 Maintenance of records, reports, and transfers.

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(i) * * *

(1) Each licensee authorized to dispose of waste materials received from other persons under this part shall submit annual reports to the Director, Office of Federal and State Materials and Environmental Management Programs, by an appropriate method listed in § 61.4 of this chapter, with a copy to the appropriate NRC Regional Office shown in Appendix D to 10 CFR part 20. Reports must be submitted by the end of the first calendar quarter of each year for the preceding year.

(2)(i) The reports shall include:

(A) Specification of the quantity of each of the principal radionuclides released to unrestricted areas in liquid and in airborne effluents during the preceding year;

(B) The results of the environmental monitoring program;

(C) A summary of licensee disposal unit survey and maintenance activities;

(D) A summary of activities and quantities of radionuclides disposed of;

(E) Any instances in which observed site characteristics were significantly different from those described in the application for a license;

(F) Any other information the Commission may require.

(ii) If the quantities of radioactive materials released during the reporting period, monitoring results, or maintenance performed are significantly different from those expected in the materials previously reviewed as part of the licensing action, the report must cover this specifically.

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