

# First-Order Regulatory Gap Analysis for Potentially Licensing a Reprocessing Facility Originally as a Part of GNEP

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**Gap Definitions:  
Definitions of Gap Classification System [\(Top\)](#)**

Gap Classification	Classification Description
<b>Major</b>	<ol style="list-style-type: none"> <li>1. Instances where additional, extensive research and resources may be needed before rulemaking can begin, i.e., time factor considerations since this will take longer</li> </ol>
<b>Moderate</b>	<ol style="list-style-type: none"> <li>1. Additions or modifications that may require more thought and staff work, but not necessarily an extensive body of research; can be done with available NRC resources, but will need more effort for adequate development, includes gaps that may be due to the unique nature of reprocessing, and cannot be simply pulled from existing regulations</li> </ol>
<b>Minor</b>	<ol style="list-style-type: none"> <li>1. Definitional Changes or clarifications</li> <li>2. Additions that will be pulled from established parts and modified only slightly, if needed</li> </ol>
<b>No</b>	Instances where NRC regulations require no modification or clarification

**Part 2: Rules of practice for domestic licensing proceedings and issuance of orders**  
**Part 8: Interpretations [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
2	ENTIRE PART	No Gap	Applicable to GNEP facility licensing
8.1	Interpretation of section 152 of the Atomic Energy Act of 1954; opinion of the General Counsel	No Gap	Applicable to GNEP facility licensing
8.2	Interpretation of Price-Anderson Act, section 170 of the Atomic Energy Act of 1954	No Gap	Applicable to GNEP facility licensing
8.4	Interpretation by the General Counsel: AEC jurisdiction over nuclear facilities and materials under the Atomic Energy Act	No Gap	Applicable to GNEP facility licensing
8.5	Interpretation by the General Counsel of 73.55 of this chapter; illumination and physical search requirements	No Gap	Applicable to GNEP facility licensing

**Part 20:  
Standards for protection against radiation [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">20.1001</a>	Purpose	No Gap	10 CFR Part 20 covers all NRC licensed activities.
<a href="#">20.1001</a>	Purpose	No Gap	
<a href="#">20.1002</a>	Scope	No Gap	
<a href="#">20.1003</a>	Definitions	Minor Gap	
<a href="#">20.1004</a>	Units of radiation dose	No Gap	
<a href="#">20.1005</a>	Units of radioactivity	No Gap	
<a href="#">20.1006</a>	Interpretations	No Gap	
<a href="#">20.1007</a>	Communications	No Gap	
<a href="#">20.1008</a>	Implementation	No Gap	
<a href="#">20.1009</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">20.1101</a>	Radiation protection programs	No Gap	
<a href="#">20.1201</a>	Occupational dose limits for adults	No Gap	
<a href="#">20.1202</a>	Compliance with requirements for summation of external and internal doses	No Gap	
<a href="#">20.1203</a>	Determination of external dose from airborne radioactive material	No Gap	
<a href="#">20.1204</a>	Determination of internal exposure	No Gap	
<a href="#">20.1206</a>	Planned special exposures	No Gap	

**Part 20:  
Standards for protection against radiation [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">20.1207</a>	Occupational dose limits for minors	No Gap	
<a href="#">20.1208</a>	Dose equivalent to an embryo/fetus	No Gap	
<a href="#">20.1301</a>	Dose limits for individual members of the public	No Gap	
<a href="#">20.1302</a>	Compliance with dose limits for individual members of the public	No Gap	
<a href="#">20.1401</a>	General provisions and scope	Potential Gap	The meaning of “uranium solution extraction facilities” needs to be clarified. If reprocessing is intended here, this will have to be deleted, as this section should apply to reprocessing facilities.
<a href="#">20.1402</a>	Radiological criteria for unrestricted use	No Gap	
<a href="#">20.1403</a>	Criteria for license termination under restricted conditions	No Gap	
<a href="#">20.1404</a>	Alternate criteria for license termination	No Gap	
<a href="#">20.1405</a>	Public notification and public participation	No Gap	
<a href="#">20.1406</a>	Minimization of contamination	No Gap	
<a href="#">20.1501</a>	General	No Gap	
<a href="#">20.1502</a>	Conditions requiring individual monitoring of external and internal occupational dose	No Gap	
<a href="#">20.1601</a>	Control of access to high radiation areas	No Gap	

**Part 20:  
Standards for protection against radiation [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">20.1602</a>	Control of access to very high radiation areas	No Gap	
<a href="#">20.1701</a>	Use of process or other engineering controls	No Gap	
<a href="#">20.1702</a>	Use of other controls	No Gap	
<a href="#">20.1703</a>	Use of individual respiratory protection equipment	No Gap	
<a href="#">20.1704</a>	Further restrictions on the use of respiratory protection equipment	No Gap	
<a href="#">20.1705</a>	Application for use of higher assigned protection factors	No Gap	
<a href="#">20.1801</a>	Security of stored material	Potential Gap	
<a href="#">20.1802</a>	Control of material not in storage	Potential Gap	
<a href="#">20.1901</a>	Caution signs	No Gap	
<a href="#">20.1902</a>	Posting requirements	No Gap	
<a href="#">20.1903</a>	Exceptions to posting requirements	No Gap	
<a href="#">20.1904</a>	Labeling containers	No Gap	
<a href="#">20.1905</a>	Exemptions to labeling requirements	No Gap	
<a href="#">20.1906</a>	Procedures for receiving and opening packages	No Gap	
<a href="#">20.1906</a>	Procedures for receiving and opening packages	No Gap	
<a href="#">20.2001</a>	General requirements	No Gap	

**Part 20:  
Standards for protection against radiation [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">20.2002</a>	Method for obtaining approval of proposed disposal procedures	No Gap	
<a href="#">20.2003</a>	Disposal by release into sanitary sewerage	Potential Gap	
<a href="#">20.2004</a>	Treatment or disposal by incineration	Potential Gap	
<a href="#">20.2005</a>	Disposal of specific wastes	No Gap	
<a href="#">20.2006</a>	Transfer for disposal and manifests	No Gap	
<a href="#">20.2007</a>	Compliance with environmental and health protection regulations	No Gap	
<a href="#">20.2101</a>	General provisions	No Gap	
<a href="#">20.2102</a>	Records of radiation protection programs	No Gap	
<a href="#">20.2103</a>	Records of surveys	No Gap	
<a href="#">20.2104</a>	Determination of prior occupational dose	No Gap	
<a href="#">20.2105</a>	Records of planned special exposures	No Gap	
<a href="#">20.2106</a>	Records of individual monitoring results	No Gap	
<a href="#">20.2107</a>	Records of dose to individual members of the public	No Gap	
<a href="#">20.2108</a>	Records of waste disposal	No Gap	
<a href="#">20.2110</a>	Form of records	No Gap	

**Part 20:  
Standards for protection against radiation [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">20.2201</a>	Reports of theft or loss of licensed material	No Gap	
<a href="#">20.2202</a>	Notification of incidents	No Gap	
<a href="#">20.2203</a>	Reports of exposures, radiation levels, and concentrations of radioactive material exceeding the constraints or limits	No Gap	
<a href="#">20.2204</a>	Reports of planned special exposures	No Gap	
<a href="#">20.2205</a>	Reports to individuals of exceeding dose limits	No Gap	
<a href="#">20.2206</a>	Reports of individual monitoring	Minor Gap	Current regulation includes reprocessing under 20.2206(a)(3) and requirements for SNM.
<a href="#">20.2207</a>	Reports of transactions involving nationally tracked sources	No Gap	
<a href="#">20.2301</a>	Applications for exemptions	No Gap	
<a href="#">20.2302</a>	Additional requirements	No Gap	
<a href="#">20.2401</a>	Violations	No Gap	
<a href="#">20.2402</a>	Criminal penalties	No Gap	



**Part 30:  
Rules of general applicability to domestic licensing of byproduct material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">30.1</a>	Scope	No Gap	Current reactor licenses include Part 30 as one of the referenced regulations.
<a href="#">30.1</a>	Scope	No Gap	
<a href="#">30.2</a>	Resolution of conflict	No Gap	
<a href="#">30.3</a>	Activities requiring license	No Gap	
<a href="#">30.4</a>	Definitions	No Gap	
<a href="#">30.5</a>	Interpretations	No Gap	
<a href="#">30.6</a>	Communications	No Gap	
<a href="#">30.7</a>	Employee protection	No Gap	
<a href="#">30.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">30.9</a>	Completeness and accuracy of information	No Gap	
<a href="#">30.10</a>	Deliberate misconduct	No Gap	
<a href="#">30.11</a>	Specific exemptions	No Gap	
<a href="#">30.12</a>	Persons using byproduct material under certain Department of Energy and Nuclear Regulatory Commission contracts	No Gap	
<a href="#">30.13</a>	Carriers	No Gap	
<a href="#">30.14</a>	Exempt concentrations	No Gap	
<a href="#">30.15</a>	Certain items containing byproduct material	No Gap	

**Part 30:**  
**Rules of general applicability to domestic licensing of byproduct material** ([Top](#))

Rule	Regulation	Gap Identification	Remarks
<a href="#">30.16</a>	Resins containing scandium-46 and designed for sand-consolidation in oil wells	No Gap	
<a href="#">30.18</a>	Exempt quantities	No Gap	
<a href="#">30.19</a>	Self-luminous products containing tritium, krypton-85, or promethium-147	No Gap	
<a href="#">30.20</a>	Gas and aerosol detectors containing byproduct material	No Gap	
<a href="#">30.21</a>	Radioactive drug: Capsules containing carbon-14 urea for "in vivo" diagnostic use for humans	No Gap	
<a href="#">30.31</a>	Types of licenses	No Gap	
<a href="#">30.32</a>	Application for specific licenses	No Gap	
<a href="#">30.33</a>	General requirements for issuance of specific licenses	No Gap	
<a href="#">30.34</a>	Terms and conditions of licenses	No Gap	
<a href="#">30.35</a>	Financial assurance and recordkeeping for decommissioning	No Gap	
<a href="#">30.36</a>	Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas	No Gap	
<a href="#">30.37</a>	Application for renewal of licenses	No Gap	

**Part 30:**  
**Rules of general applicability to domestic licensing of byproduct material** ([Top](#))

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">30.38</a>	Application for amendment of licenses	No Gap	
<a href="#">30.39</a>	Commission action on applications to renew or amend	No Gap	
<a href="#">30.41</a>	Transfer of byproduct material	No Gap	
<a href="#">30.50</a>	Reporting requirements	No Gap	
<a href="#">30.51</a>	Records	No Gap	
<a href="#">30.52</a>	Inspections	No Gap	
<a href="#">30.53</a>	Tests	No Gap	
<a href="#">30.55</a>	Tritium reports	No Gap	
<a href="#">30.61</a>	Modification and revocation of licenses	No Gap	
<a href="#">30.62</a>	Right to cause the withholding or recall of byproduct material	No Gap	
<a href="#">30.63</a>	Violations	No Gap	
<a href="#">30.64</a>	Criminal penalties	No Gap	
<a href="#">30.70</a>	Schedule A--Exempt concentrations	No Gap	
<a href="#">30.71</a>	Schedule B	No Gap	
<a href="#">30.72</a>	Schedule C--Quantities of radioactive materials requiring consideration of the need for an emergency plan for responding to a release	No Gap	

**Part 32:**  
**Specific domestic licenses to manufacture or transfer certain items containing byproduct material** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">32.1</a>	Purpose and scope	No Gap	The ABR will produce radioactive material that may fall under the definition of "byproduct material", but it is not expected to be sold or distributed to anyone. Hence, the entire Part can be said to not apply to the ABR.
<a href="#">32.1</a>	Purpose and scope	No Gap	
<a href="#">32.2</a>	Definitions	No Gap	
<a href="#">32.3</a>	Maintenance of records	No Gap	
<a href="#">32.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">32.11</a>	Introduction of byproduct material in exempt concentrations into products or materials, and transfer of ownership or possession: Requirements for license	No Gap	
<a href="#">32.12</a>	Same: Records and material transfer reports	No Gap	
<a href="#">32.13</a>	Same: Prohibition of introduction	No Gap	
<a href="#">32.14</a>	Certain items containing byproduct material; requirements for license to apply or initially transfer	No Gap	
<a href="#">32.15</a>	Same: Quality assurance, prohibition of transfer, and labeling	No Gap	
<a href="#">32.16</a>	Certain items containing byproduct material: Records and reports of transfer	No Gap	

**Part 32:**  
**Specific domestic licenses to manufacture or transfer certain items containing byproduct material [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">32.17</a>	Resins containing scandium-46 and designed for sand-consolidation in oil wells: Requirements for license to manufacture, or initially transfer for sale or distribution	No Gap	
<a href="#">32.18</a>	Manufacture, distribution and transfer of exempt quantities of byproduct material: Requirements for license	No Gap	
<a href="#">32.19</a>	Same: Conditions of licenses	No Gap	
<a href="#">32.20</a>	Same: Records and material transfer reports	No Gap	
<a href="#">32.21</a>	Radioactive drug: Manufacture, preparation, or transfer for commercial distribution of capsules containing carbon-14 urea each for "in vivo" diagnostic use for humans to persons exempt from licensing; Requirements for a license	No Gap	
<a href="#">32.21a</a>	Same: Conditions of license	No Gap	
<a href="#">32.22</a>	Self-luminous products containing tritium, krypton-85 or promethium-147: Requirements for license to manufacture, process, produce, or initially transfer	No Gap	
<a href="#">32.23</a>	Same: Safety criteria	No Gap	
<a href="#">32.24</a>	Same: Table of organ doses	No Gap	

**Part 32:**  
**Specific domestic licenses to manufacture or transfer certain items containing byproduct material** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">32.25</a>	Conditions of licenses issued under 32	No Gap	
<a href="#">32.26</a>	Gas and aerosol detectors containing byproduct material: Requirements for license to manufacture, process, produce, or initially transfer	No Gap	
<a href="#">32.27</a>	Same: Safety criteria	No Gap	
<a href="#">32.28</a>	Same: Table of organ doses	No Gap	
<a href="#">32.29</a>	Conditions of licenses issued under 32	No Gap	
<a href="#">32.40</a>	Schedule A--Prototype tests for automobile lock illuminators	No Gap	
<a href="#">32.51</a>	Byproduct material contained in devices for use under 31	No Gap	
<a href="#">32.51a</a>	Same: Conditions of licenses	No Gap	
<a href="#">32.52</a>	Same: material transfer reports and records	No Gap	
<a href="#">32.53</a>	Luminous safety devices for use in aircraft: Requirements for license to manufacture, assemble, repair or initially transfer	No Gap	
<a href="#">32.54</a>	Same: Labeling of devices	No Gap	
<a href="#">32.55</a>	Same: Quality assurance; prohibition of transfer	No Gap	
<a href="#">32.56</a>	Same: Material transfer reports	No Gap	

**Part 32:**  
**Specific domestic licenses to manufacture or transfer certain items containing byproduct material [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">32.57</a>	Calibration or reference sources containing americium-241: Requirements for license to manufacture or initially transfer	No Gap	
<a href="#">32.58</a>	Same: Labeling of devices	No Gap	
<a href="#">32.59</a>	Same: Leak testing of each source	No Gap	
<a href="#">32.61</a>	Ice detection devices containing strontium-90; requirements for license to manufacture or initially transfer	No Gap	
<a href="#">32.62</a>	Same: Quality assurance; prohibition of transfer	No Gap	
<a href="#">32.71</a>	Manufacture and distribution of byproduct material for certain in vitro clinical or laboratory testing under general license	No Gap	
<a href="#">32.72</a>	Manufacture, preparation, or transfer for commercial distribution of radioactive drugs containing byproduct material for medical use under part 35	No Gap	
<a href="#">32.74</a>	Manufacture and distribution of sources or devices containing byproduct material for medical use	No Gap	

**Part 32:**  
**Specific domestic licenses to manufacture or transfer certain items containing byproduct material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">32.101</a>	Schedule B--prototype tests for luminous safety devices for use in aircraft	No Gap	
<a href="#">32.102</a>	Schedule C--prototype tests for calibration or reference sources containing americium-241	No Gap	
<a href="#">32.103</a>	Schedule D--prototype tests for ice detection devices containing strontium-90	No Gap	
<a href="#">32.110</a>	Acceptance sampling procedures under certain specific licenses	No Gap	
<a href="#">32.201</a>	Serialization of nationally tracked sources	No Gap	
<a href="#">32.210</a>	Registration of product information	No Gap	
<a href="#">32.301</a>	Violations	No Gap	
<a href="#">32.303</a>	Criminal penalties	No Gap	



**Part 50:  
Domestic licensing of production and utilization facilities for Liquid Metal Reactors [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">50.1</a>	Basis, purpose, and procedures applicable	No Gap	
<a href="#">50.2</a>	Definitions	Minor Gap	Additional definitions are needed for LMRs
<a href="#">50.3</a>	Interpretations	No Gap	
<a href="#">50.4</a>	Written communications	No Gap	
<a href="#">50.5</a>	Deliberate misconduct	No Gap	
<a href="#">50.7</a>	Employee protection	No Gap	
<a href="#">50.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">50.9</a>	Completeness and accuracy of information	No Gap	
<a href="#">50.10</a>	License required	No Gap	
<a href="#">50.11</a>	Exceptions and exemptions from licensing requirements	No Gap	
<a href="#">50.12</a>	Specific exemptions	No Gap	
<a href="#">50.13</a>	Attacks and destructive acts by enemies of the United States; and defense activities	No Gap	
<a href="#">50.20</a>	Two classes of licenses	No Gap	
<a href="#">50.21</a>	Class 104 licenses; for medical therapy and research and development facilities	No Gap	Not applicable to LMR (ABR) licensing
<a href="#">50.22</a>	Class 103 licenses; for commercial and industrial facilities	No Gap	
<a href="#">50.23</a>	Construction permits	No Gap	

**Part 50:  
Domestic licensing of production and utilization facilities for Liquid Metal Reactors [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">50.30</a>	Filing of application for licenses; oath or affirmation	No Gap	
<a href="#">50.31</a>	Combining applications	No Gap	
<a href="#">50.32</a>	Elimination of repetition	No Gap	
<a href="#">50.33</a>	Contents of applications; general information	No Gap	
<a href="#">50.34</a>	Contents of applications; technical information	Moderate Gap	Modifications are needed for LMRs because they may not have AFW and ECCS
<a href="#">50.34a</a>	Design objectives for equipment to control releases of radioactive material in effluents--nuclear power reactors	Moderate Gap	Modifications are needed for LMRs
<a href="#">50.35</a>	Issuance of construction permits	No Gap	
<a href="#">50.36</a>	Technical specifications	No Gap	
<a href="#">50.36a</a>	Technical specifications on effluents from nuclear power reactors	No Gap	
<a href="#">50.36b</a>	Environmental conditions	No Gap	
<a href="#">50.37</a>	Agreement limiting access to Classified Information	No Gap	
<a href="#">50.38</a>	Ineligibility of certain applicants	No Gap	
<a href="#">50.39</a>	Public inspection of applications	No Gap	
<a href="#">50.40</a>	Common standards	No Gap	

**Part 50:  
Domestic licensing of production and utilization facilities for Liquid Metal Reactors [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">50.41</a>	Additional standards for class 104 licenses	No Gap	Not applicable to LMR licensing
<a href="#">50.42</a>	Additional standards for class 103 licenses	No Gap	
<a href="#">50.43</a>	Additional standards and provisions affecting class 103 licenses for commercial power	No Gap	
<a href="#">50.44</a>	Combustible gas control for nuclear power reactors	Minor Gap	10 CFR 50.44(a) and (d) apply to LMRs 10 CFR 50.44(b) and (c) should be modified
<a href="#">50.45</a>	Standards for construction permits	No Gap	
<a href="#">50.46</a>	Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors	Moderate Gap	Rule is specific to LWRs. Requirements for LMR cooling should be developed
<a href="#">50.46a</a>	Acceptance criteria for reactor coolant system venting systems	Moderate Gap	Rule is specific to LWRs. Requirements for LMR venting should be developed
<a href="#">50.47</a>	Emergency plans	No Gap	
<a href="#">50.48</a>	Fire protection	Moderate Gap	Requirements for protection and mitigation of sodium fire should be developed
<a href="#">50.49</a>	Environmental qualification of electric equipment important to safety for nuclear power plants	No Gap	
<a href="#">50.50</a>	Issuance of licenses and construction permits	No Gap	
<a href="#">50.51</a>	Continuation of license	No Gap	
<a href="#">50.52</a>	Combining licenses	No Gap	

**Part 50:**  
**Domestic licensing of production and utilization facilities for Liquid Metal Reactors** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">50.53</a>	Jurisdictional limitations	No Gap	
<a href="#">50.54</a>	Conditions of licenses	Minor Gap	Rule specifies staffing requirements for nuclear power and reprocessing plants which may have to be modified for LMRs
<a href="#">50.55</a>	Conditions of construction permits	No Gap	
<a href="#">50.55a</a>	Codes and standards	Moderate Gap	Rule is primarily for LWRs. Different codes and standards should be referenced for LMRs
<a href="#">50.56</a>	Conversion of construction permit to license; or amendment of license	No Gap	
<a href="#">50.57</a>	Issuance of operating license	No Gap	
<a href="#">50.58</a>	Hearings and report of the Advisory Committee on Reactor Safeguards	No Gap	
<a href="#">50.59</a>	Changes, tests, and experiments	No Gap	
<a href="#">50.60</a>	Acceptance criteria for fracture prevention measures for lightwater nuclear power reactors for normal operation	Minor Gap	Applies only to LWRs. Alternate criteria may be needed for LMRs
<a href="#">50.61</a>	Fracture toughness requirements for protection against pressurized thermal shock events	Minor Gap	Applies only to LWRs. Alternate criteria may be needed for LMRs
<a href="#">50.62</a>	Requirements for reduction of risk from anticipated transients without scram (ATWS) events for light-water-cooled nuclear power plants	Minor Gap	Applies only to LWRs. Alternate criteria may be needed for LMRs
<a href="#">50.63</a>	Loss of all alternating current power	Minor Gap	Applies only to LWRs. Alternate criteria may be needed for LMRs.

**Part 50:**  
**Domestic licensing of production and utilization facilities for Liquid Metal Reactors** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">50.64</a>	Limitations on the use of highly enriched uranium (HEU) in domestic non-power reactors	No Gap	Applies to non-power reactors
<a href="#">50.65</a>	Requirements for monitoring the effectiveness of maintenance at nuclear power plants	No Gap	
<a href="#">50.66</a>	Requirements for thermal annealing of the reactor pressure vessel	Minor Gap	Applies only to LWRs. Alternate criteria may be needed for LMRs
<a href="#">50.67</a>	Accident source term	No Gap	Applies only to operating licenses issued prior to January 10, 1997
<a href="#">50.68</a>	Criticality accident requirements	Minor Gap	Rule limits fuel enrichment to 5% by weight
<a href="#">50.69</a>	Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors	Minor Gap	Specific reference to LWRs must be modified to include LMRs
<a href="#">50.70</a>	Inspections	No Gap	
<a href="#">50.71</a>	Maintenance of records, making of reports	No Gap	
<a href="#">50.72</a>	Immediate notification requirements for operating nuclear power reactors	Minor Gap	Rule should be modified to define types of LMR events to be reported
<a href="#">50.73</a>	Licensee event report system	Minor Gap	Rule should be modified to define types of LMR events to be reported
<a href="#">50.74</a>	Notification of change in operator or senior operator status	No Gap	
<a href="#">50.75</a>	Reporting and recordkeeping for decommissioning planning	Minor Gap	Rule should modified to add reference to LMR

**Part 50:**  
**Domestic licensing of production and utilization facilities for Liquid Metal Reactors** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">50.76</a>	Licensee's change of status; financial qualifications	No Gap	
<a href="#">50.78</a>	Installation information and verification	No Gap	
<a href="#">50.80</a>	Transfer of licenses	No Gap	
<a href="#">50.81</a>	Creditor regulations	No Gap	
<a href="#">50.82</a>	Termination of license	No Gap	
<a href="#">50.83</a>	Release of part of a power reactor facility or site for unrestricted use	No Gap	
<a href="#">50.90</a>	Application for amendment of license or construction permit	No Gap	
<a href="#">50.91</a>	Notice for public comment; State consultation	No Gap	
<a href="#">50.92</a>	Issuance of amendment	No Gap	
<a href="#">50.100</a>	Revocation, suspension, modification of licenses and construction permits for cause	No Gap	
<a href="#">50.101</a>	Retaking possession of special nuclear material	No Gap	
<a href="#">50.102</a>	Commission order for operation after revocation	No Gap	
<a href="#">50.103</a>	Suspension and operation in war or national emergency	No Gap	
<a href="#">50.109</a>	Backfitting	No Gap	
<a href="#">50.110</a>	Violations	No Gap	

**Part 50:**  
**Domestic licensing of production and utilization facilities for Liquid Metal Reactors** [\(Top\)](#)

Rule	Regulation	Gap Identification	Remarks
<a href="#">50.111</a>	Criminal penalties	No Gap	
<a href="#">50.120</a>	Training and qualification of nuclear power plant personnel	No Gap	

**Part 50, Appendix A:  
General Design Criteria for Nuclear Power Plants [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">General Design Criteria 1</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 2</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 3</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 4</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 5</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 10</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 11</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 12</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 13</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 14</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 15</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 16</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 17</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 18</a>	General Design Criteria for Nuclear Power Plants	No Gap	



**Part 50, Appendix A:  
General Design Criteria for Nuclear Power Plants [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">General Design Criteria 19</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Cold shutdown may need to be defined for LMRs
<a href="#">General Design Criteria 20</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 21</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 22</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 23</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Should add sodium to postulated adverse environments
<a href="#">General Design Criteria 24</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 25</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 26</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Cold shutdown may need to be defined for LMRs
<a href="#">General Design Criteria 27</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Reference to poison should be removed. Other changes should be added for LMRs
<a href="#">General Design Criteria 28</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Reference to cold water addition should be removed. Other postulated LMR accidents should be added
<a href="#">General Design Criteria 29</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 30</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 31</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 32</a>	General Design Criteria for Nuclear Power Plants	No Gap	

**Part 50, Appendix A:  
General Design Criteria for Nuclear Power Plants [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">General Design Criteria 33</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 33 applies only to LWRs. Changes or elimination may be required
<a href="#">General Design Criteria 34</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 35</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	LMRs may not have ECCS
<a href="#">General Design Criteria 36</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 36 should be modified for LMRs which may not have ECCS
<a href="#">General Design Criteria 37</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 37 should be modified for LMRs which may not have ECCS
<a href="#">General Design Criteria 38</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 39</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 39 should be modified for LMRs
<a href="#">General Design Criteria 40</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 40 should be modified for LMRs
<a href="#">General Design Criteria 41</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 41 should be modified for LMRs
<a href="#">General Design Criteria 42</a>	General Design Criteria for Nuclear Power Plants	Moderate Gap	Criterion 42 should be modified for LMRs
<a href="#">General Design Criteria 43</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 43 should be modified for LMRs
<a href="#">General Design Criteria 44</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 44 should be modified for LMRs
<a href="#">General Design Criteria 45</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 45 should be modified for LMRs
<a href="#">General Design Criteria 46</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 46 should be modified for LMRs

**Part 50, Appendix A:  
General Design Criteria for Nuclear Power Plants [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">General Design Criteria 50</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 50 should be modified for LMRs
<a href="#">General Design Criteria 51</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 51 should be modified for LMRs
<a href="#">General Design Criteria 52</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 53</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 54</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 55</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 55 should be modified for LMRs
<a href="#">General Design Criteria 56</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 56 should be modified for LMRs
<a href="#">General Design Criteria 57</a>	General Design Criteria for Nuclear Power Plants	Minor Gap	Criterion 57 should be modified for LMRs
<a href="#">General Design Criteria 60</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 61</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 62</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 63</a>	General Design Criteria for Nuclear Power Plants	No Gap	
<a href="#">General Design Criteria 64</a>	General Design Criteria for Nuclear Power Plants	No Gap	

**Part 50, Appendix B - S ([Top](#))**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">Appendix B</a>	Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants	No Gap	
<a href="#">Appendix C</a>	A Guide for the Financial Data and Related Information Required To Establish Financial Qualifications for Facility	No Gap	
<a href="#">Appendix D</a>	[Reserved]	No Gap	
<a href="#">Appendix E</a>	Emergency Planning and Preparedness for Production and Utilization Facilities	Minor Gap	Appendix should include LMRs in addition to LWRs
<a href="#">Appendix F</a>	Policy Relating to the Siting of Fuel Reprocessing Plants and Related Waste Management Facilities	No Gap	Rule is not applicable
<a href="#">Appendix G</a>	Fracture Toughness Requirements	Minor Gap	Need to develop criteria for LMRs
<a href="#">Appendix H</a>	Reactor Vessel Material Surveillance Program Requirements	Minor Gap	Need to develop criteria for LMRs
<a href="#">Appendix I</a>	Numerical Guides for Design Objectives and Limiting Conditions for Operation To Meet the Criterion "As Low as is Reasonably Achievable" for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents	Minor Gap	Need to develop criteria for LMRs
<a href="#">Appendix J</a>	Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors	Minor Gap	Need to develop criteria for LMRs
<a href="#">Appendix K</a>	ECCS Evaluation Models	Minor Gap	Need to develop criteria for LMRs

**Part 50, Appendix B - S [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">Appendix L</a>	[Reserved]	No Gap	
<a href="#">Appendix M</a>	Standardization of Design; Manufacture of Nuclear Power Reactors; Construction and Operation of Nuclear Power Reactors Manufactured Pursuant to Commission License	Minor Gap	May not be needed in view of the applicability of 10 CFR Part 52
<a href="#">Appendix N</a>	Standardization of Nuclear Power Plant Designs: Licenses To Construct and Operate Nuclear Power Reactors of Duplicate Design at Multiple Sites	Minor Gap	May not be needed in view of the applicability of 10 CFR Part 52
<a href="#">Appendix O</a>	Standardization of Design: Staff Review of Standard Designs	Minor Gap	May not be needed in view of the applicability of 10 CFR Part 52
<a href="#">Appendix P</a>	[Reserved]	No Gap	
<a href="#">Appendix Q</a>	Pre-Application Early Review of Site Suitability Issues	No Gap	Requirements are the same as 10 CFR 50
<a href="#">Appendix R</a>	Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979	No Gap	Applicable only to nuclear power facilities operating prior to January 1, 1979
<a href="#">Appendix S</a>	Earthquake Engineering Criteria for Nuclear Power Plants	No Gap	LMRs have the same requirements as LWRs

**Part 51:  
Environmental protection regulations for domestic licensing and related regulatory functions [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">51.1</a>	Scope	No Gap	
<a href="#">51.1</a>	Scope	No Gap	
<a href="#">51.2</a>	Subparts	No Gap	
<a href="#">51.3</a>	Resolution of conflict	No Gap	
<a href="#">51.4</a>	Definitions	Minor Gap	
<a href="#">51.5</a>	Interpretations	No Gap	
<a href="#">51.6</a>	Specific exemptions	No Gap	
<a href="#">51.10</a>	Purpose and scope of subpart; application of regulations of Council on Environmental Quality	No Gap	
<a href="#">51.12</a>	Application of subpart to ongoing environmental work	No Gap	
<a href="#">51.13</a>	Emergencies	No Gap	
<a href="#">51.14</a>	Definitions	No Gap	
<a href="#">51.15</a>	Time schedules	No Gap	
<a href="#">51.16</a>	Proprietary information	No Gap	
<a href="#">51.17</a>	Information collection requirements; OMB approval	No Gap	
<a href="#">51.20</a>	Criteria for and identification of licensing and regulatory actions requiring environmental impact statements	minor Gap	The regulation covers early site permits and COL under Part 52. Mentions a reprocessing facility licensed under part 50 in 50.20 (b)(2).

**Part 51:**  
**Environmental protection regulations for domestic licensing and related regulatory functions** [\(Top\)](#)

Rule	Regulation	Gap Identification	Remarks
<a href="#">51.20</a>	Criteria for and identification of licensing and regulatory actions requiring environmental impact statements	Minor Gap	Update b1 for reprocessing plants.
<a href="#">51.21</a>	Criteria for and identification of licensing and regulatory actions requiring environmental assessments	No Gap	
<a href="#">51.22</a>	Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review	No Gap	
<a href="#">51.23</a>	Temporary storage of spent fuel after cessation of reactor operation--generic determination of no significant environmental impact	Minor Gap	May need to add reprocessing to (b).
<a href="#">51.25</a>	Determination to prepare environmental impact statement or environmental assessment; eligibility for categorical exclusion	No Gap	
<a href="#">51.26</a>	Requirement to publish notice of intent and conduct scoping process	No Gap	
<a href="#">51.27</a>	Notice of intent	No Gap	
<a href="#">51.28</a>	Scoping--participants	No Gap	
<a href="#">51.29</a>	Scoping--environmental impact statement	No Gap	

**Part 51:**  
**Environmental protection regulations for domestic licensing and related regulatory functions** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">51.30</a>	Environmental assessment	No Gap	
<a href="#">51.31</a>	Determinations based on environmental assessment	No Gap	
<a href="#">51.32</a>	Finding of no significant impact	No Gap	
<a href="#">51.33</a>	Draft finding of no significant impact; distribution	No Gap	
<a href="#">51.34</a>	Preparation of finding of no significant impact	No Gap	
<a href="#">51.35</a>	Requirement to publish finding of no significant impact; limitation on Commission action	No Gap	
<a href="#">51.40</a>	Consultation with NRC staff	No Gap	
<a href="#">51.41</a>	Requirement to submit environmental information	No Gap	
<a href="#">51.45</a>	Environmental report	No Gap	
<a href="#">51.50</a>	Environmental report-- construction permit stage	No Gap	
<a href="#">51.51</a>	Uranium fuel cycle environmental data--Table S-3	Moderate Gap	Radionuclide effluent data from fuel reprocessing facilities are included in Table S-3 to address uranium fuel cycle environmental requirements for licensing of LWR nuclear power reactors. Data associated with reprocessing may need to be updated.
<a href="#">51.51</a>	Uranium fuel cycle environmental data--Table S-3	Moderate Gap	Revisions to Table S-4 for GNEP may need to be developed.
<a href="#">51.52</a>	Environmental effects of transportation of fuel and waste--Table S-4	Moderate Gap	Revisions to Table S-4 for GNEP may need to be developed
<a href="#">51.53</a>	Postconstruction environmental reports	Potential Gap	This regulation appears to be focused on LWRs.



**Part 51:  
Environmental protection regulations for domestic licensing and related regulatory functions [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">51.54</a>	Environmental report-- manufacturing license	No Gap	
<a href="#">51.55</a>	Environmental report-- distribution	No Gap	
<a href="#">51.60</a>	Environmental report-- materials licenses	Moderate Gap	If part 7X created, will need inclusion here.
<a href="#">51.61</a>	Environmental report-- independent spent fuel storage installation (ISFSI) or monitored retrievable storage installation (MRS) license	No Gap	
<a href="#">51.62</a>	Environmental report--land disposal of radioactive waste licensed under 10 CFR part 61	No Gap	
<a href="#">51.66</a>	Environmental report-- distribution	No Gap	
<a href="#">51.67</a>	Environmental information concerning geologic repositories	No Gap	
<a href="#">51.68</a>	Environmental report-- rulemaking	No Gap	
<a href="#">51.70</a>	Draft environmental impact statement--general	No Gap	
<a href="#">51.71</a>	Draft environmental impact statement--contents	No Gap	
<a href="#">51.72</a>	Supplement to draft environmental impact statement	No Gap	

**Part 51:**  
**Environmental protection regulations for domestic licensing and related regulatory functions** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">51.73</a>	Request for comments on draft environmental impact statement	No Gap	
<a href="#">51.74</a>	Distribution of draft environmental impact statement and supplement to draft environmental impact statement; news releases	No Gap	
<a href="#">51.75</a>	Draft environmental impact statement--construction permit	Potential Gap	If reprocessing facilities are defined as a "production facility" then they may need to be added to this section.
<a href="#">51.76</a>	Draft environmental impact statement--manufacturing license	No Gap	
<a href="#">51.77</a>	Distribution of draft environmental impact statement	No Gap	
<a href="#">51.80</a>	Draft environmental impact statement--materials license	Potential Gap	If reprocessing facilities are licensed as a "materials" facility, this regulation will apply. Reg refers back to parts 51.70-50.73. Those parts may therefore need updating to ensure adequacy for reprocessing.
<a href="#">51.81</a>	Distribution of draft environmental impact statement	No Gap	
<a href="#">51.85</a>	Draft environmental impact statement--rulemaking	No Gap	
<a href="#">51.86</a>	Distribution of draft environmental impact statement	No Gap	
<a href="#">51.88</a>	Proposals for legislation	No Gap	
<a href="#">51.90</a>	Final environmental impact statement--general	No Gap	

**Part 51:  
Environmental protection regulations for domestic licensing and related regulatory functions [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">51.91</a>	Final environmental impact statement--contents	No Gap	
<a href="#">51.92</a>	Supplement to the final environmental impact statement	No Gap	
<a href="#">51.93</a>	Distribution of final environmental impact statement and supplement to final environmental impact statement; news releases	No Gap	
<a href="#">51.94</a>	Requirement to consider final environmental impact statement	No Gap	
<a href="#">51.95</a>	Postconstruction environmental impact statements	Moderate Gap	The regulation may need to be modified to be consistent with the decisions the Commission makes regarding how GNEP will cope with the inapplicability of current generic determinations.
<a href="#">51.95</a>	Postconstruction environmental impact statements	No Gap	
<a href="#">51.97</a>	Final environmental impact statement--materials license	No Gap	
<a href="#">51.100</a>	Timing of Commission action	No Gap	
<a href="#">51.101</a>	Limitations on actions	No Gap	
<a href="#">51.102</a>	Requirement to provide a record of decision; preparation	No Gap	
<a href="#">51.103</a>	Record of decision--general	No Gap	
<a href="#">51.104</a>	NRC proceeding using public hearings; consideration of environmental impact statement	No Gap	

**Part 51:**  
**Environmental protection regulations for domestic licensing and related regulatory functions** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">51.105</a>	Public hearings in proceedings for issuance of construction permits or licenses to manufacture	No Gap	
<a href="#">51.106</a>	Public hearings in proceedings for issuance of operating licenses	No Gap	
<a href="#">51.109</a>	Public hearings in proceedings for issuance of materials license with respect to a geologic repository	No Gap	
<a href="#">51.116</a>	Notice of intent	No Gap	
<a href="#">51.117</a>	Draft environmental impact statement--notice of availability	No Gap	
<a href="#">51.118</a>	Final environmental impact statement--notice of availability	No Gap	
<a href="#">51.119</a>	Publication of finding of no significant impact; distribution	No Gap	
<a href="#">51.120</a>	Availability of environmental documents for public inspection	No Gap	
<a href="#">51.121</a>	Status of NEPA actions	No Gap	
<a href="#">51.122</a>	List of interested organizations and groups	No Gap	
<a href="#">51.123</a>	Charges for environmental documents; distribution to public; distribution to governmental agencies	No Gap	
<a href="#">51.124</a>	Commission duty to comment	No Gap	

**Part 51:**  
**Environmental protection regulations for domestic licensing and related regulatory functions** [\(Top\)](#)

Rule	Regulation	Gap Identification	Remarks
<a href="#">51.125</a>	Responsible official	No Gap	
<a href="#">Appendix A</a>	Format for presentation of material in EIS	No Gap	
<a href="#">Appendix B</a>	Environmental effect of renewing the operating license of a nuclear power plant	Potential Gap	Moderate, if there is a gap. Commission intent to review and update material every 10 years (last FRN 2001, [66 FR 39278]). Uranium fuel cycle appears to consider closed fuel cycle only.

**Part 52:**  
**Early site permits; standard design certifications; and combined licenses for nuclear power plants** [\(Top\)](#)

Rule	Regulation	Gap Identification	Remarks
<a href="#">Part 52</a>	Part - Early site permits; standard design certifications; and combined licenses for nuclear power plants	No Gap	

**Part 54:**  
**Requirements for renewal of operating licenses for nuclear power plants** [\(Top\)](#)

Rule	Regulation	Gap Identification	Remarks
<a href="#">Part 54</a>	Part - Requirements for renewal of operating licenses for nuclear power plants	No Gap	

**Part 61:  
Licensing requirements for land disposal of radioactive waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">61.1</a>	Purpose and scope	No Gap	
<a href="#">61.2</a>	Definitions	Minor Gap	
<a href="#">61.3</a>	License required	No Gap	
<a href="#">61.4</a>	Communications	No Gap	
<a href="#">61.5</a>	Interpretations	No Gap	
<a href="#">61.6</a>	Exemptions	No Gap	
<a href="#">61.7</a>	Concepts	No Gap	
<a href="#">61.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">61.9</a>	Employee protection	No Gap	
<a href="#">61.9a</a>	Completeness and accuracy of information	No Gap	
<a href="#">61.9b</a>	Deliberate Misconduct	No Gap	
<a href="#">61.10</a>	Content of application	No Gap	
<a href="#">61.11</a>	General information	No Gap	
<a href="#">61.12</a>	Specific technical information	No Gap	
<a href="#">61.13</a>	Specific technical information	No Gap	
<a href="#">61.14</a>	Institutional information	No Gap	
<a href="#">61.15</a>	Financial information	No Gap	
<a href="#">61.16</a>	Other information	No Gap	
<a href="#">61.20</a>	Filing and distribution of application	No Gap	
<a href="#">61.24</a>	Conditions of licenses	No Gap	

**Part 61:**  
**Licensing requirements for land disposal of radioactive waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">61.25</a>	Changes	No Gap	
<a href="#">61.26</a>	Amendment of license	No Gap	
<a href="#">61.27</a>	Application for renewal or closure	No Gap	
<a href="#">61.28</a>	Contents of application for closure	No Gap	
<a href="#">61.29</a>	Post-closure observation and maintenance	No Gap	
<a href="#">61.30</a>	License required	No Gap	
<a href="#">61.31</a>	Termination of license	No Gap	
<a href="#">61.40</a>	General requirement	No Gap	
<a href="#">61.41</a>	Protection of the general population from releases of radioactivity	No Gap	
<a href="#">61.42</a>	Protection of the general population from releases of radioactivity	No Gap	
<a href="#">61.43</a>	Protection of individuals during operations	No Gap	
<a href="#">61.44</a>	Stability of the disposal site after closure	No Gap	
<a href="#">61.50</a>	Interpretations	No Gap	
<a href="#">61.51</a>	Disposal site design for land disposal	No Gap	
<a href="#">61.52</a>	Land disposal facility operation and disposal site closure	No Gap	
<a href="#">61.53</a>	Environmental monitoring	No Gap	

**Part 61:  
Licensing requirements for land disposal of radioactive waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">61.54</a>	Alternative requirements for design and operations	No Gap	
<a href="#">61.55</a>	Waste classification	No Gap	Land disposal not currently a considered option for spent fuel constituents.
<a href="#">61.56</a>	Waste characteristics	No Gap	
<a href="#">61.57</a>	Labeling	No Gap	
<a href="#">61.58</a>	Alternative requirements for waste classification and characteristics	No Gap	
<a href="#">61.59</a>	Institutional requirements	No Gap	
<a href="#">61.61</a>	Applicant qualifications and assurances	No Gap	
<a href="#">61.62</a>	Funding for disposal site closure and stabilization	No Gap	
<a href="#">61.63</a>	Funding for disposal site closure and stabilization	No Gap	
<a href="#">61.70</a>	Scope	No Gap	
<a href="#">61.71</a>	Scope	No Gap	
<a href="#">61.72</a>	Filing of proposals for State and Tribal participation	No Gap	
<a href="#">61.73</a>	Commission approval of proposals	No Gap	
<a href="#">61.80</a>	Maintenance of records, reports, and transfers	No Gap	
<a href="#">61.81</a>	Maintenance of records, reports, and transfers	No Gap	
<a href="#">61.82</a>	Commission inspections of land disposal facilities	No Gap	



**Part 61:**  
**Licensing requirements for land disposal of radioactive waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">61.83</a>	Violations	No Gap	
<a href="#">61.84</a>	Criminal penalties	No Gap	

**Part 63:**  
**Disposal of high-level radioactive wastes in a geologic repository at Yucca Mountain, Nevada** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">63.1</a>	Purpose and scope	No Gap	
<a href="#">63.2</a>	Definitions	No Gap	Waste from reprocessing, with unique characteristics, may need to be clarified.
<a href="#">63.3</a>	License required	No Gap	
<a href="#">63.4</a>	Communications and records	No Gap	These requirements for communications and records are for the DOE, and are not applicable to the applicants/licensees of the reprocessing facilities.
<a href="#">63.5</a>	Interpretations	No Gap	
<a href="#">63.6</a>	Exemptions	No Gap	
<a href="#">63.7</a>	License not required for certain preliminary activities	No Gap	
<a href="#">63.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">63.9</a>	Employee protection	No Gap	
<a href="#">63.11</a>	Deliberate misconduct	No Gap	
<a href="#">63.15</a>	Site characterization	No Gap	
<a href="#">63.16</a>	Review of site characterization activities	No Gap	
<a href="#">63.21</a>	Content of application	No Gap	
<a href="#">63.22</a>	Filing and distribution of application	No Gap	
<a href="#">63.23</a>	Elimination of repetition	No Gap	
<a href="#">63.24</a>	Updating of application and environmental impact statement	No Gap	
<a href="#">63.31</a>	Construction authorization	No Gap	

**Part 63:**  
**Disposal of high-level radioactive wastes in a geologic repository at Yucca Mountain, Nevada** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">63.32</a>	Conditions of construction authorization	No Gap	
<a href="#">63.33</a>	Amendment of construction authorization	No Gap	
<a href="#">63.41</a>	Standards for issuance of a license	No Gap	
<a href="#">63.42</a>	Conditions of license	No Gap	
<a href="#">63.43</a>	License specification	No Gap	
<a href="#">63.44</a>	Changes, tests, and experiments	No Gap	
<a href="#">63.45</a>	Amendment of license	No Gap	
<a href="#">63.51</a>	License amendment for permanent closure	No Gap	
<a href="#">63.52</a>	Termination of license	No Gap	
<a href="#">63.61</a>	Provision of information	No Gap	
<a href="#">63.62</a>	Site review	No Gap	
<a href="#">63.63</a>	Participation in license reviews	No Gap	
<a href="#">63.64</a>	Notice to State	No Gap	
<a href="#">63.65</a>	Representation	No Gap	
<a href="#">63.71</a>	Records and reports	No Gap	
<a href="#">63.72</a>	Construction records	No Gap	
<a href="#">63.73</a>	Reports of deficiencies	No Gap	
<a href="#">63.74</a>	Tests	No Gap	
<a href="#">63.75</a>	Inspections	No Gap	

**Part 63:**  
**Disposal of high-level radioactive wastes in a geologic repository at Yucca Mountain, Nevada** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">63.78</a>	Material control and accounting records and reports	No Gap	
<a href="#">63.101</a>	Purpose and nature of findings	No Gap	
<a href="#">63.102</a>	Concepts	No Gap	
<a href="#">63.111</a>	Performance objectives for the geologic repository operations area through permanent closure	No Gap	
<a href="#">63.112</a>	Requirements for preclosure safety analysis of the geologic repository operations area	No Gap	
<a href="#">63.113</a>	Performance objectives for the geologic repository after permanent closure	No Gap	
<a href="#">63.114</a>	Requirements for performance assessment	No Gap	
<a href="#">63.115</a>	Requirements for multiple barriers	No Gap	
<a href="#">63.121</a>	Requirements for ownership and control of interests in land	No Gap	
<a href="#">63.131</a>	General requirements	No Gap	
<a href="#">63.132</a>	Confirmation of geotechnical and design parameters	No Gap	
<a href="#">63.133</a>	Design testing	No Gap	
<a href="#">63.134</a>	Monitoring and testing waste packages	No Gap	

**Part 63:**  
**Disposal of high-level radioactive wastes in a geologic repository at Yucca Mountain, Nevada** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">63.141</a>	Scope	No Gap	
<a href="#">63.142</a>	Quality assurance criteria	No Gap	
<a href="#">63.151</a>	General requirements	No Gap	
<a href="#">63.152</a>	Training and certification program	No Gap	
<a href="#">63.153</a>	Physical requirements	No Gap	
<a href="#">63.161</a>	Emergency plan for the geologic repository operations area through permanent closure	No Gap	
<a href="#">63.171</a>	Violations	No Gap	
<a href="#">63.172</a>	Criminal penalties	No Gap	
<a href="#">63.201</a>	Purpose and scope	No Gap	
<a href="#">63.202</a>	Definitions for Subpart K	No Gap	The subpart K is for the storage of radioactive material by DOE in the Yucca Mountain repository, and relates to the pre-closure public health and environment standards. The reprocessed spent nuclear fuel is covered under the definition of "Radioactive Material" in this section, which refers to the high-level radioactive materials defined in section 63.2.
<a href="#">63.203</a>	Definitions for Subpart K	No Gap	
<a href="#">63.204</a>	Preclosure standard	No Gap	
<a href="#">63.301</a>	Purpose and scope	No Gap	
<a href="#">63.302</a>	Definitions for Subpart L	No Gap	
<a href="#">63.303</a>	Implementation of Subpart L	No Gap	
<a href="#">63.304</a>	Reasonable expectation	No Gap	
<a href="#">63.305</a>	Required characteristics of the reference biosphere	No Gap	

**Part 63:**  
**Disposal of high-level radioactive wastes in a geologic repository at Yucca Mountain, Nevada** [\(Top\)](#)

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">63.311</a>	Individual protection standard after permanent closure	No Gap	
<a href="#">63.312</a>	Required characteristics of the reasonably maximally exposed individual	No Gap	
<a href="#">63.321</a>	Individual protection standard for human intrusion	No Gap	
<a href="#">63.322</a>	Human intrusion scenario	No Gap	
<a href="#">63.331</a>	Separate standards for protection of ground water	No Gap	
<a href="#">63.332</a>	Representative volume	No Gap	
<a href="#">63.341</a>	Projections of peak dose	No Gap	
<a href="#">63.342</a>	Limits on performance assessments	No Gap	
<a href="#">63.343</a>	Severability of individual protection and ground-water protection standards	No Gap	

**Part 70:  
Domestic licensing of special nuclear material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">70.1</a>	Purpose	No Gap	
<a href="#">70.2</a>	Scope	No Gap	
<a href="#">70.3</a>	License requirements	No Gap	
<a href="#">70.4</a>	Definitions	Potential Gap	If changes to SNM definition are made, they will need to be incorporated here as well.
<a href="#">70.5</a>	Communications	No Gap	
<a href="#">70.6</a>	Interpretations	No Gap	
<a href="#">70.7</a>	Employee protection	No Gap	
<a href="#">70.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">70.9</a>	Completeness and accuracy of information	No Gap	
<a href="#">70.10</a>	Deliberate misconduct	No Gap	
<a href="#">70.11</a>	Persons using special nuclear material under certain Department of Energy and Nuclear Regulatory Commission contracts	No Gap	
<a href="#">70.12</a>	Carriers	No Gap	
<a href="#">70.13</a>	Department of Defense	No Gap	
<a href="#">70.14</a>	Foreign military aircraft	No Gap	
<a href="#">70.17</a>	Specific exemptions	No Gap	
<a href="#">70.18</a>	Types of licenses	No Gap	
<a href="#">70.19</a>	General license for calibration or reference sources	No Gap	

**Part 70:  
Domestic licensing of special nuclear material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">70.20</a>	General license to own special nuclear material	No Gap	
<a href="#">70.20a</a>	General license to possess special nuclear material for transport	No Gap	
<a href="#">70.20b</a>	General license for carriers of transient shipments of formula quantities of strategic special nuclear material, special nuclear material of moderate strategic significance, special nuclear material of low strategic significance, and irradiated reactor fuel	No Gap	
<a href="#">70.21</a>	Filing	Minor Gap	Add spent fuel processing facility.
<a href="#">70.22</a>	Contents of applications	Potential Gap	Requirements that may be needed for issuance of a COL-type license will need to be assessed for adequacy and completeness; add part 52 for excepted reactors; add reprocessing facilities.
<a href="#">70.23</a>	Requirements for the approval of applications	Minor Gap	add reprocessing facilities; revisions to (a)(8) are needed to assess PSSC's that are converted into IROFS upon facility completion.
<a href="#">70.23a</a>	Hearing required for uranium enrichment facility	No Gap	
<a href="#">70.24</a>	Criticality accident requirements	No Gap	
<a href="#">70.25</a>	Financial assurance and recordkeeping for decommissioning	Potential Gap	It would need to be determined whether the costs indicated for decommissioning are adequate considering potential fission product cleanup.
<a href="#">70.31</a>	Issuance of licenses	No Gap	
<a href="#">70.32</a>	Conditions of licenses	Potential Gap	Need to assess whether license conditions are adequate for spent fuel processing.
<a href="#">70.33</a>	Renewal of licenses	No Gap	



**Part 70:  
Domestic licensing of special nuclear material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">70.34</a>	Amendment of licenses	No Gap	
<a href="#">70.35</a>	Commission action on applications to renew or amend	No Gap	
<a href="#">70.36</a>	Inalienability of licenses	No Gap	
<a href="#">70.37</a>	Disclaimer of warranties	No Gap	
<a href="#">70.38</a>	Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas	Potential Gap	Section needs to be looked at thoroughly to determine that requirements are inclusive for recycling facilities.
<a href="#">70.39</a>	Specific licenses for the manufacture or initial transfer of calibration or reference sources	No Gap	
<a href="#">70.40</a>	Ineligibility of certain applicants	No Gap	
<a href="#">70.41</a>	Authorized use of special nuclear material	No Gap	
<a href="#">70.42</a>	Transfer of special nuclear material	No Gap	
<a href="#">70.44</a>	Creditor regulations	No Gap	
<a href="#">70.50</a>	Reporting requirements	No Gap	
<a href="#">70.51</a>	Records requirements	No Gap	
<a href="#">70.52</a>	Reports of accidental criticality	No Gap	
<a href="#">70.55</a>	Inspections	Minor Gap	Potentially include "reprocessing" to list of facilities.
<a href="#">70.56</a>	Tests	No Gap	

**Part 70:  
Domestic licensing of special nuclear material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">70.59</a>	Effluent monitoring reporting requirements	Minor Gap	add reprocessing facilities to list
<a href="#">70.60</a>	Applicability	Minor Gap	Add spent fuel reprocessing to list of facilities.
<a href="#">70.61</a>	Performance requirements	Major & Minor Gaps	Minor - Risk approaches that will be needed to incorporate spent fuel reprocessing (expanded ISA matrix or PRA/ISA methodology) will need to be added and updated here. Major – developing and incorporating either a) expanded ISA matrix and performance criteria or b) PRA/ISA and criteria for determining which method applies for a given accident sequence.
<a href="#">70.62</a>	Safety program and integrated safety analysis	Moderate Gap	If PRA/ISA is utilized, requirements of how this approach fit into an applicants safety program will need to be established. Section is adequate if expanded ISA method is used.
<a href="#">70.64</a>	Requirements for new facilities or new processes at existing facilities	No Gap	
<a href="#">70.65</a>	Additional content of applications	Minor Gap	changes to (b)(9) to incorporate expanded ISA matrix or additional item added for PRA/ISA hybrid.
<a href="#">70.66</a>	Additional requirements for approval of license application	No Gap	
<a href="#">70.72</a>	Facility changes and change process	No Gap	
<a href="#">70.73</a>	Renewal of licenses	No Gap	
<a href="#">70.74</a>	Additional reporting requirements	No Gap	
<a href="#">70.76</a>	Backfitting	No Gap	Backfitting does not currently apply to reprocessing facilities (there are no NRC licensed facilities), however, section is valid for backfitting future reprocessing facilities .
<a href="#">70.81</a>	Modification and revocation of licenses	No Gap	
<a href="#">70.82</a>	Suspension and operation in war or national emergency	No Gap	
<a href="#">70.91</a>	Violations	No Gap	

**Part 70:**  
**Domestic licensing of special nuclear material [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">70.92</a>	Criminal penalties	No Gap	
<a href="#">App A</a>	Reportable Safety Events	Potential Gap	Unique events that could occur as a result of reprocessing spent fuel should be included in the one-hour report and twenty-four hour reports. Perhaps inclusion of overexposures alongside other performance requirements with appropriate timeliness for reportability.

**Part 71:  
Packaging and transportation of radioactive material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">71.0</a>	Purpose and scope	No Gap	In 71.0(f) provisions were added to address Part 76, Certificate of Compliance holders. If GNEP results in something other than a "license", similar to Part 76, then an additional provision may be required.
<a href="#">71.1</a>	Communications and records	No Gap	
<a href="#">71.2</a>	Interpretations	No Gap	
<a href="#">71.3</a>	Requirement for license	No Gap	
<a href="#">71.4</a>	Definitions	No Gap	
<a href="#">71.5</a>	Transportation of licensed material	No Gap	
<a href="#">71.6</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">71.7</a>	Completeness and accuracy of information	No Gap	
<a href="#">71.8</a>	Deliberate misconduct	No Gap	
<a href="#">71.9</a>	Employee protection	No Gap	
<a href="#">71.10</a>	Public inspection of application	No Gap	
<a href="#">71.12</a>	Specific exemptions	No Gap	
<a href="#">71.13</a>	Exemption of physicians	No Gap	This paragraph is only applicable to Part 35 licensees.
<a href="#">71.14</a>	Exemption for low-level materials	No Gap	
<a href="#">71.15</a>	Exemption from classification as fissile material	No Gap	
<a href="#">71.17</a>	General license: NRC-approved package	No Gap	
<a href="#">71.19</a>	Previously approved package	No Gap	

**Part 71:  
Packaging and transportation of radioactive material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">71.20</a>	General license: DOT specification container	No Gap	This general license provision expires on 10/1/08.
<a href="#">71.21</a>	General license: Use of foreign approved package	No Gap	
<a href="#">71.22</a>	General license: Fissile material	No Gap	
<a href="#">71.23</a>	General license: Plutonium-beryllium special form material	No Gap	
<a href="#">71.31</a>	Contents of application	No Gap	
<a href="#">71.33</a>	Package description	No Gap	
<a href="#">71.35</a>	Package evaluation	No Gap	
<a href="#">71.37</a>	Quality assurance	No Gap	
<a href="#">71.38</a>	Renewal of a certificate of compliance or quality assurance program approval	No Gap	
<a href="#">71.39</a>	Requirement for additional information	No Gap	
<a href="#">71.41</a>	Demonstration of compliance	No Gap	
<a href="#">71.43</a>	General standards for all packages	No Gap	
<a href="#">71.45</a>	Lifting and tie-down standards for all packages	No Gap	
<a href="#">71.47</a>	External radiation standards for all packages	No Gap	
<a href="#">71.51</a>	Additional requirements for Type B packages	No Gap	

**Part 71:  
Packaging and transportation of radioactive material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">71.55</a>	General requirements for fissile material packages	No Gap	
<a href="#">71.59</a>	Standards for arrays of fissile material packages	No Gap	
<a href="#">71.61</a>	Special requirements for Type B packages containing more than 10&bd5;A&bdi2;	No Gap	
<a href="#">71.63</a>	Special requirement for plutonium shipments	No Gap	
<a href="#">71.64</a>	Special requirements for plutonium air shipments	No Gap	
<a href="#">71.65</a>	Additional requirements	No Gap	
<a href="#">71.71</a>	Normal conditions of transport	No Gap	
<a href="#">71.73</a>	Hypothetical accident conditions	No Gap	
<a href="#">71.74</a>	Accident conditions for air transport of plutonium	No Gap	
<a href="#">71.75</a>	Qualification of special form radioactive material	No Gap	
<a href="#">71.77</a>	Qualification of LSA-III Material	No Gap	
<a href="#">71.81</a>	Applicability of operating controls and procedures	No Gap	
<a href="#">71.83</a>	Assumptions as to unknown properties	No Gap	
<a href="#">71.85</a>	Preliminary determinations	No Gap	
<a href="#">71.87</a>	Routine determinations	No Gap	

**Part 71:  
Packaging and transportation of radioactive material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">71.88</a>	Air transport of plutonium	No Gap	
<a href="#">71.89</a>	Opening instructions	No Gap	
<a href="#">71.91</a>	Records	No Gap	
<a href="#">71.93</a>	Inspection and tests	No Gap	
<a href="#">71.95</a>	Reports	No Gap	
<a href="#">71.97</a>	Advance notification of shipment of irradiated reactor fuel and nuclear waste	No Gap	These notification requirements may be impacted by changes being made in Part 73. Applicability to GNEP may need to be reevaluated after future rulemaking is complete.
<a href="#">71.99</a>	Violations	No Gap	
<a href="#">71.100</a>	Criminal penalties	No Gap	
<a href="#">71.101</a>	Quality assurance requirements	No Gap	
<a href="#">71.103</a>	Quality assurance organization	No Gap	
<a href="#">71.105</a>	Quality assurance program	No Gap	
<a href="#">71.107</a>	Package design control	No Gap	
<a href="#">71.109</a>	Procurement document control	No Gap	
<a href="#">71.111</a>	Instructions, procedures, and drawings	No Gap	
<a href="#">71.113</a>	Document control	No Gap	
<a href="#">71.115</a>	Control of purchased material, equipment, and services	No Gap	
<a href="#">71.117</a>	Identification and control of materials, parts, and components	No Gap	

**Part 71:**  
**Packaging and transportation of radioactive material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">71.119</a>	Control of special processes	No Gap	
<a href="#">71.121</a>	Internal inspection	No Gap	
<a href="#">71.123</a>	Test control	No Gap	
<a href="#">71.125</a>	Control of measuring and test equipment	No Gap	
<a href="#">71.127</a>	Handling, storage, and shipping control	No Gap	
<a href="#">71.129</a>	Inspection, test, and operating status	No Gap	
<a href="#">71.131</a>	Nonconforming materials, parts, or components	No Gap	
<a href="#">71.133</a>	Corrective action	No Gap	
<a href="#">71.135</a>	Quality assurance records	No Gap	
<a href="#">71.137</a>	Audits	No Gap	



**Part 72:  
Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.1</a>	Purpose	No Gap	Moderate gap may exist if onsite storage is planned for Parts 61 and 62 materials.
<a href="#">72.2</a>	Scope	No Gap	
<a href="#">72.2</a>	Scope	No Gap	Same remark as 72.1
<a href="#">72.3</a>	Definitions	No Gap	Minor gap may exist if onsite storage is planned for Part 61 and 62 materials.
<a href="#">72.4</a>	Communications	No Gap	
<a href="#">72.5</a>	Interpretations	No Gap	
<a href="#">72.6</a>	License required; types of licenses	No Gap	
<a href="#">72.7</a>	Specific exemptions	No Gap	
<a href="#">72.8</a>	Denial of licensing by Agreement States	No Gap	
<a href="#">72.9</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">72.10</a>	Employee protection	No Gap	
<a href="#">72.11</a>	Completeness and accuracy of information	No Gap	
<a href="#">72.12</a>	Deliberate misconduct	No Gap	
<a href="#">72.13</a>	Applicability	No Gap	
<a href="#">72.16</a>	Filing of application for specific license	No Gap	
<a href="#">72.18</a>	Elimination of repetition	No Gap	
<a href="#">72.20</a>	Public inspection of application	No Gap	

**Part 72:  
Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.22</a>	Contents of application: General and financial information	No Gap	
<a href="#">72.24</a>	Contents of application: Technical information	No Gap	
<a href="#">72.26</a>	Contents of application: Technical specifications	No Gap	
<a href="#">72.28</a>	Contents of application: Applicant's technical qualifications	No Gap	
<a href="#">72.30</a>	Financial assurance and recordkeeping for decommissioning	No Gap	
<a href="#">72.32</a>	Emergency Plan	No Gap	
<a href="#">72.34</a>	Environmental report	No Gap	
<a href="#">72.40</a>	Issuance of license	No Gap	
<a href="#">72.42</a>	Duration of license; renewal	No Gap	
<a href="#">72.44</a>	License conditions	No Gap	
<a href="#">72.46</a>	Public hearings	No Gap	
<a href="#">72.48</a>	Changes, tests, and experiments	No Gap	
<a href="#">72.50</a>	Transfer of license	No Gap	
<a href="#">72.52</a>	Creditor regulations	No Gap	
<a href="#">72.54</a>	Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas	No Gap	

**Part 72:**

**Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.56</a>	Application for amendment of license	No Gap	
<a href="#">72.58</a>	Issuance of amendment	No Gap	
<a href="#">72.60</a>	Modification, revocation, and suspension of license	No Gap	
<a href="#">72.62</a>	Backfitting	No Gap	
<a href="#">72.70</a>	Safety analysis report updating	No Gap	
<a href="#">72.72</a>	Material balance, inventory, and records requirements for stored materials	No Gap	
<a href="#">72.74</a>	Reports of accidental criticality or loss of special nuclear material	No Gap	
<a href="#">72.75</a>	Reporting requirements for specific events and conditions	No Gap	
<a href="#">72.76</a>	Material status reports	No Gap	
<a href="#">72.78</a>	Nuclear material transfer reports	No Gap	
<a href="#">72.80</a>	Other records and reports	No Gap	
<a href="#">72.82</a>	Inspections and tests	No Gap	
<a href="#">72.84</a>	Violations	No Gap	
<a href="#">72.86</a>	Criminal penalties	No Gap	
<a href="#">72.90</a>	General considerations	No Gap	
<a href="#">72.92</a>	Design basis external natural events	No Gap	

**Part 72:  
Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.94</a>	Design basis external man-induced events	No Gap	
<a href="#">72.96</a>	Siting limitations	No Gap	
<a href="#">72.98</a>	Identifying regions around an ISFSI or MRS site	No Gap	
<a href="#">72.100</a>	Defining potential effects of the ISFSI or MRS on the region	No Gap	
<a href="#">72.102</a>	Geological and seismological characteristics for applications before October 16, 2003 and applications for other than dry cask modes of storage	No Gap	
<a href="#">72.103</a>	Geological and seismological characteristics for applications for dry cask modes of storage on or after October 16, 2003	No Gap	
<a href="#">72.104</a>	Criteria for radioactive materials in effluents and direct radiation from an ISFSI or MRS	No Gap	
<a href="#">72.106</a>	Controlled area of an ISFSI or MRS	No Gap	
<a href="#">72.108</a>	Spent fuel, high-level radioactive waste, or reactor-related greater than Class C waste transportation	No Gap	
<a href="#">72.120</a>	General considerations	No Gap	
<a href="#">72.122</a>	Overall requirements	No Gap	

**Part 72:  
Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.124</a>	Criteria for nuclear criticality safety	No Gap	
<a href="#">72.126</a>	Criteria for radiological protection	No Gap	
<a href="#">72.128</a>	Criteria for spent fuel, high-level radioactive waste, reactor-related greater than Class C waste, and other radioactive waste storage and handling	No Gap	
<a href="#">72.130</a>	Criteria for decommissioning	No Gap	
<a href="#">72.140</a>	Quality assurance requirements	No Gap	
<a href="#">72.142</a>	Quality assurance organization	No Gap	
<a href="#">72.144</a>	Quality assurance program	No Gap	
<a href="#">72.146</a>	Design control	No Gap	
<a href="#">72.148</a>	Procurement document control	No Gap	
<a href="#">72.150</a>	Instructions, procedures, and drawings	No Gap	
<a href="#">72.152</a>	Document control	No Gap	
<a href="#">72.154</a>	Control of purchased material, equipment, and services	No Gap	
<a href="#">72.156</a>	Identification and control of materials, parts, and components	No Gap	
<a href="#">72.158</a>	Control of special processes	No Gap	

**Part 72:  
Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.160</a>	Licensee and certificate holder inspection	No Gap	
<a href="#">72.162</a>	Test control	No Gap	
<a href="#">72.164</a>	Control of measuring and test equipment	No Gap	
<a href="#">72.166</a>	Handling, storage, and shipping control	No Gap	
<a href="#">72.168</a>	Inspection, test, and operating status	No Gap	
<a href="#">72.170</a>	Nonconforming materials, parts, or components	No Gap	
<a href="#">72.172</a>	Corrective action	No Gap	
<a href="#">72.174</a>	Quality assurance records	No Gap	
<a href="#">72.176</a>	Audits	No Gap	
<a href="#">72.180</a>	Physical protection plan	No Gap	
<a href="#">72.182</a>	Design for physical protection	No Gap	
<a href="#">72.184</a>	Safeguards contingency plan	No Gap	
<a href="#">72.186</a>	Change to physical security and safeguards contingency plans	No Gap	
<a href="#">72.190</a>	Operator requirements	No Gap	
<a href="#">72.192</a>	Operator training and certification program	No Gap	
<a href="#">72.194</a>	Physical requirements	No Gap	
<a href="#">72.200</a>	Provision of MRS information	No Gap	

**Part 72:  
Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">72.202</a>	Participation in license reviews	No Gap	
<a href="#">72.204</a>	Notice to States	No Gap	
<a href="#">72.206</a>	Representation	No Gap	
<a href="#">72.210</a>	General license issued	No Gap	
<a href="#">72.212</a>	Conditions of general license issued under 72	No Gap	
<a href="#">72.214</a>	List of approved spent fuel storage casks	No Gap	
<a href="#">72.218</a>	Termination of licenses	No Gap	
<a href="#">72.220</a>	Violations	No Gap	
<a href="#">72.230</a>	Procedures for spent fuel storage cask submittals	No Gap	
<a href="#">72.232</a>	Inspection and tests	No Gap	
<a href="#">72.234</a>	Conditions of approval	No Gap	
<a href="#">72.236</a>	Specific requirements for spent fuel storage cask approval and fabrication	No Gap	
<a href="#">72.238</a>	Issuance of an NRC Certificate of Compliance	No Gap	
<a href="#">72.240</a>	Conditions for spent fuel storage cask reapproval	No Gap	
<a href="#">72.242</a>	Recordkeeping and reports	No Gap	
<a href="#">72.244</a>	Application for amendment of a certificate of compliance	No Gap	
<a href="#">72.246</a>	Issuance of amendment to a certificate of compliance	No Gap	

**Part 72:**  
**Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">72.248</a>	Safety analysis report updating	No Gap	



**Part 73:  
Physical protection of plants and materials [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">73.1</a>	Purpose and Scope	Major Gap	Design basis threat would have to be reevaluated for different materials and processes
<a href="#">73.2</a>	Definitions	Minor Gap	Need to add definitions for new facility types consistent with what would be added to Part 70
<a href="#">73.3</a>	Interpretations	No Gap	
<a href="#">73.4</a>	Communications	No Gap	
<a href="#">73.5</a>	Exemptions	No Gap	
<a href="#">73.6</a>	Exemptions for certain quantities and kinds of special nuclear material	No Gap	Believed not to apply based on current information about possible licensee activities
<a href="#">73.8</a>	Information collection requirements: OMB approval	No Gap	Administrative justification for information gathering
<a href="#">73.20</a>	General performance objective and requirements	Major Gap	The term reprocessing is used in this section. Also it contains CAT 1 requirements. Both would have to be re-evaluated for the facilities planned
<a href="#">73.21</a>	Requirements for the protection of safeguards information	Minor Gap	Would have to be revised to include new facility types
<a href="#">73.24</a>	Prohibitions	No Gap	
<a href="#">73.25</a>	Performance capabilities for physical protection of strategic special nuclear material in transit	Moderate Gap	CONTINGENT - Would have to be evaluated concerning non-SNM material; Major/minor gap based on review results
<a href="#">73.26</a>	Transportation physical protection systems, subsystems, components, and procedures	Moderate Gap	CONTINGENT - Would have to be evaluated concerning non-SNM material; Major/minor gap based on review results
<a href="#">73.27</a>	Notification	Moderate Gap	CONTINGENT - Would have to be evaluated concerning non-SNM material; Major/minor gap based on review results

**Part 73:  
Physical protection of plants and materials [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">73.37</a>	Requirements for physical protection of irradiated reactor fuel in transit	No Gap	
<a href="#">73.46</a>	Fixed site physical protection systems, subsystems, components, and procedures	Moderate Gap	CONTINGENT - Would have to be reevaluated for the facilities planned - Potentially a major gap
<a href="#">73.50</a>	Requirements for physical protection of licensed activities	No Gap	
<a href="#">73.51</a>	Requirements for the physical protection of stored spent nuclear fuel and high level radioactive waste	Moderate Gap	CONTINGENT - Would have to be evaluated concerning non-SNM material that may be in long term storage - Potentially a major gap; Potentially a major gap
<a href="#">73.55</a>	Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage	Moderate Gap	CONTINGENT - Upcoming final rule contains provisions for MOX, changes would have to be reevaluated for adequacy ; Potentially a major gap
<a href="#">73.56</a>	Personnel access authorization requirements for nuclear power plants	No Gap	
<a href="#">73.57</a>	Requirements for criminal history checks of individuals granted unescorted access to a power facility or access to Safeguards Information by power reactor licensees	No Gap	
<a href="#">73.59</a>	Relief from fingerprinting and criminal history records check for designated categories of individuals	No Gap	
<a href="#">73.60</a>	Additional requirements for physical protection at nonpower reactors	Minor Gap	If a non-power reactor was designed and used as part of the GNEP process, this section would have to be revised (comment: non-issue with aqueous reprocessing and LWR recycle as MOX)

**Part 73:  
Physical protection of plants and materials [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">73.67</a>	Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance	Moderate Gap	CONTINGENT - If some parts of the GNEP reprocessing complex was designated as less than a CAT 1 facility, this section would have to be revised (comment: contingent upon MC&A rulemaking?)
<a href="#">73.70</a>	Records	No Gap	
<a href="#">73.71</a>	Reporting of safeguards events	Minor Gap	Revision would be required to include non-SNM materials
<a href="#">73.72</a>	Requirement for advance notice of shipment of strategic special nuclear material, special nuclear material of moderate strategic significance, or irradiated reactor fuel	Minor Gap	Revision would be required to include separated non-SNM materials
<a href="#">73.73</a>	Requirement for advance notice and protection of export shipments of special nuclear material of low strategic significance	Minor Gap	If such shipments were planned between GNEP partners, this section would have to be reevaluated and consider non-SNM materials
<a href="#">73.74</a>	Requirement for advance notice and protection of import shipments of nuclear material from countries that are not party to the Convention on the Physical protection of Nuclear Material	Minor Gap	If such shipments were planned between GNEP partners, this section would have to be reevaluated and consider non-SNM materials
<a href="#">73.80</a>	Violations	No Gap	
<a href="#">73.81</a>	Criminal penalties	No Gap	
<a href="#">Appendix A</a>	U.S. Nuclear Regulatory Commission Offices and Classified Mailing Addresses	No Gap	Administrative information

**Part 73:  
Physical protection of plants and materials [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">Appendix B</a>	General Criteria for Security Personnel	No Gap	Applicable to Cat 1 and commercial reactor facilities
<a href="#">Appendix C</a>	Licensee Safeguards Contingency Plans	No Gap	Applicable to Cat 1 and commercial reactor facilities
<a href="#">Appendix D</a>	Physical Protection of Irradiated Reactor Fuel in Transit, Training Program Subject Schedule	No Gap	
<a href="#">Appendix E</a>	Levels of Physical Protection To Be Applied in International Transport of Nuclear Material \1\	No Gap	
<a href="#">Appendix F</a>	Nations That Are Parties to the Convention on the Physical Protection of Nuclear Material \1\	No Gap	Administrative information
<a href="#">Appendix G</a>	Reportable Safeguards Events	Minor Gap	Section would have to be revised to include non-SNM materials
<a href="#">Appendix H</a>	Weapons Qualification Criteria	No Gap	Applicable to Cat 1 and commercial reactor facilities

**Part 74:  
Material control and accounting of special nuclear material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">74.1</a>	Purpose	Minor Gap	
<a href="#">74.2</a>	Scope	Minor Gap	
<a href="#">74.4</a>	Definitions	Moderate Gap	
<a href="#">74.5</a>	Interpretations	No Gap	
<a href="#">74.6</a>	Communications	No Gap	
<a href="#">74.7</a>	Specific exemptions	No Gap	
<a href="#">74.8</a>	Information collection requirements: OMB approval	No Gap	
<a href="#">74.13</a>	Material status reports	Minor Gap	
<a href="#">74.15</a>	Nuclear material transfer reports	Minor Gap	
<a href="#">74.17</a>	Special nuclear material physical inventory summary report	Minor Gap	
<a href="#">74.19</a>	Recordkeeping	No Gap	
<a href="#">74.31</a>	Nuclear material control and accounting for special nuclear material of low strategic significance	No Gap	
<a href="#">74.33</a>	Nuclear material control and accounting for uranium enrichment facilities authorized to produce special nuclear material of low strategic significance	No Gap	

**Part 74:  
Material control and accounting of special nuclear material [\(Top\)](#)**

<b>Rule</b>	<b>Regulation</b>	<b>Gap Identification</b>	<b>Remarks</b>
<a href="#">74.41</a>	Nuclear material control and accounting for special nuclear material of moderate strategic significance	Potential Gap	Classification of Category I versus Category II facility and/or material type. Potential gap only due to classification scheme currently under review which may affect reprocessing facilities.
<a href="#">74.43</a>	Internal controls, inventory, and records	No Gap	
<a href="#">74.45</a>	Measurements and measurement control	No Gap	
<a href="#">74.51</a>	Nuclear material control and accounting for strategic special nuclear material	Potential Gap	Existence of an exemption for reprocessing facilities. (Category I materials). Potential gap only due to classification scheme currently under review which may affect reprocessing facilities.
<a href="#">74.53</a>	Process monitoring	No Gap	
<a href="#">74.55</a>	Item monitoring	No Gap	
<a href="#">74.57</a>	Alarm resolution	No Gap	
<a href="#">74.59</a>	Quality assurance and accounting requirements	No Gap	
<a href="#">74.81</a>	Inspections	No Gap	
<a href="#">74.82</a>	Tests	No Gap	
<a href="#">74.83</a>	Violations	No Gap	
<a href="#">74.84</a>	Criminal penalties	No Gap	

**Part 75:  
Safeguards on nuclear material – implementation of US/IAEA agreement [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">Part 75</a>	entire	No Gap	No gap as of March 2008. Part 75 undergoing rulemaking and will be re-evaluated after rulemaking complete.

**Part 95:  
Facility Security Clearance and Safeguarding of National Security Information and restricted Data [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">Part 95</a>	entire	No Gap	

**Part 100:  
Reactor Site Criteria [\(Top\)](#)**

Rule	Regulation	Gap Identification	Remarks
<a href="#">Part 100</a>	Reactor site criteria	Potential Gap	Potential inclusion of reprocessing facilities.