

APPENDIX B

SUGGESTED FORMAT FOR PROVIDING INFORMATION REQUESTED IN ITEMS 5 THROUGH 11 OF NRC FORM 313

Suggested Format for Providing Information Requested in Items 5 through 11 of NRC Form 313

Appendix B is designed to be used for all types of applicants requesting a service provider license. All applicants should complete Tables B-1 through B-4, as applicable.

After selecting the applicable items that need to be addressed, refer to the corresponding sections in the NUREG. It is necessary for applicants to provide the level of detail required for the individual types of service(s) requested in the application. Note that providing information for very limited licenses (e.g., leak-test service provider) requires less information than would be required for a commercial nuclear laundry or a waste management license. Applicants for service provider licenses requiring authorization for types and quantities of material specific for broad scope licenses should refer to NUREG-1556, Vol. 11, "Consolidated Guidance About Material Licenses: Program-Specific Guidance About Licenses of Broad Scope." Applicants for service provider licenses requiring authorization for research and development should refer to NUREG-1556, Vol. 7, "Consolidated Guidance About Material Licenses: Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope Including Electron Capture Devices and X-Ray Fluorescence Analyzers."

Table B-1. Items 5 & 6: Unsealed Radioactive Materials To Be Possessed and Proposed Uses						
Unsealed Radionuclide	Chemical or Physical Form				Total Activity Requested	Use Code*
1-98	<input type="checkbox"/> Gas	<input checked="" type="checkbox"/> Liquid	<input checked="" type="checkbox"/> Solid	<input type="checkbox"/> Other: Specify	up to 40 Ci	U
	<input type="checkbox"/> Gas	<input type="checkbox"/> Liquid	<input type="checkbox"/> Solid	<input type="checkbox"/> Other: Specify		
	<input type="checkbox"/> Gas	<input type="checkbox"/> Liquid	<input type="checkbox"/> Solid	<input type="checkbox"/> Other: Specify		
	<input type="checkbox"/> Gas	<input type="checkbox"/> Liquid	<input type="checkbox"/> Solid	<input type="checkbox"/> Other: Specify		

Is the applicant going to possess, or take possession from its clients of, unsealed radionuclides? Provide a response and explain.

☒ Yes

☐ No

Explain: LLRW will be transferred onto MVF License following receipt survey for characterization

Table B-2. Items 5 & 6: Sealed Radioactive Materials To Be Possessed and Proposed Uses					
Radionuclide (Sealed Source)	Device Manufacturer and Model No.	Sealed Source Device Registration No.	Maximum Activity per Source	Total Source Activity	Use Code
1-98	Various	Yes & GL & no-SSDR	Various	Up to 1000 Ci	U

Is the applicant going to possess, or take possession from its clients of, sealed radionuclides and/or devices? Provide a response and explain.

☒ Yes

☐ No

Explain:

LLRW or material for recycle or reuse will transferred to MVF license following receipt survey for consolidation as received for disposition

Table B-3. Items 5 & 6: Source and Special Nuclear Materials To Be Possessed and Proposed Uses				
Source Material				
	Material	Mass	Activity	Use Code*
<input checked="" type="checkbox"/>	Depleted Uranium	Kilograms	MBq (mCi)	U
		by concentration	IAW USEC WAC	
<input checked="" type="checkbox"/>	Uranium-238	Grams	MBq (mCi)	U
<input checked="" type="checkbox"/>	Thorium-232	Grams	MBq (mCi)	U
<input type="checkbox"/>	Other: Specify	Grams	MBq (mCi)	
Special Nuclear Material				
<input checked="" type="checkbox"/>	Uranium-234	Grams	MBq (mCi)	U
		by concentration	IAW USEC WAC	
Special Nuclear Material				
	Material	Mass	Activity	Use Code*
<input checked="" type="checkbox"/>	Uranium-235	Grams	MBq (mCi)	U
<input checked="" type="checkbox"/>	Plutonium-238	Grams	MBq (mCi)	U
<input checked="" type="checkbox"/>	Plutonium-239	Grams	MBq (mCi)	U

*Use code represents the purpose for which licensed material will be possessed or used. Use codes are provided below

Use Code* Low-Risk Activities:

- A. analysis of Leak-Test Samples (no collection)
- B. analysis of Environmental Samples (no collection)
- C. sample Collection and Analysis of Leak Tests
- D. sample Collection and Analysis of Environmental Samples
- E. calibration of instrument/dosimeter using low-activity sources
- F. service/repair of gas chromatographs, X-ray fluorescence analyzers, and/or similar devices
- G. training/instruction to individuals on radiation safety-related topics
- H. other low-risk services not identified above, where radioactive material is used for commercial service activities

Use Code* High-Risk Activities:

- I. service and/or repair of portable nuclear gauges (including removal of source rod)
- J. service and/or repair of fixed gauges
- K. service and/or repair of fixed gauges mounted on a mobile object, like a truck or railcar
- L. storage of radioactive material for other entities
- M. use of unsealed material in tracer studies (e.g., use inside pipes in a refinery)
- N. use of remote activated robotics in radioactive contaminated areas
- O. calibration of survey instruments and personnel dosimetry equipment as a service for others.
- P. installation, radiation surveys, routine and preventive maintenance, adjustment or repair of high-dose rate (HDR) remote afterloaders, teletherapy, or gamma stereotactic radiosurgery units that require access to the sealed source(s), driving units, or other electronic components that could expose the sealed source, reduce the shielding, or compromise the radiation safety of the device or safety systems
- Q. installation, relocation, removal from service, disposal, radiation surveys, routine or preventive maintenance, adjustment, training, or repair of
 - (1) self-shielded irradiators [American National Standards Institute (ANSI) Category I irradiators].
 - (2) Title 10 of the *Code of Federal Regulations* (10 CFR) Part 36 irradiators (ANSI Categories II, III, and IV irradiators)

- R. nuclear laundry services
- S. retrieval of industrial radiography sealed sources
- T. decontamination and decommissioning services (NUREG-1757, Volume 1)
- U. waste management services, including, packaging and repackaging of radioactive waste for transportation, commercial incineration, compaction, super compaction, solidification, or vitrification
- V. other high-risk services not identified above, excluding activities involving critical mass quantities of special nuclear material

If the applicant desires to perform tracer/field studies in which licensed material is deliberately released to the environment, please provide the following information:

- a complete application describing the type and amount of material to be used, the location of use, and training and experience of the individual using the material
- a copy of the applicant's operating and emergency procedures
- a description of the amount of radioactive material to be released in the field, decontamination procedures at the conclusion of the experiment, if appropriate, and procedures for minimizing releases
- a description of the expected radiation dose to humans
- a sample agreement letter between the applicant and the applicant's customer acknowledging the use of radioactive materials at the customer's site.
- a letter from the appropriate state health authorities, indicating that they have reviewed the applicant's application and concur with the applicant's request

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
	RADIOACTIVE MATERIAL				
5.3	<p>Recordkeeping For Decommissioning</p> <p>→ Provide the following statement: Pursuant to 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g), and 10 CFR 70.51(b)(3), as appropriate, we will maintain drawings and records important to decommissioning and will transfer these records to an NRC or Agreement State licensee before licensed activities are transferred. Furthermore, pursuant to 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a), as appropriate, prior to license termination, we will forward the records required by 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g), as appropriate, to the appropriate NRC regional office or to assign the records to the appropriate NRC regional office before the license is terminated."</p>	<input checked="" type="checkbox"/>			
5.4	<p>Financial Assurance</p> <p>Financial assurance is not required for most service provider applicants. If the applicant is going to possess radioactive material but wants to keep the possession limits below the requirements for financial assurance, commit to the following statement:</p> <p>"We shall restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d), 10 CFR 40.36(b), and/or 10 CFR 70.25(d) for establishing decommissioning financial assurance."</p> <p>OR</p> <p>→ If financial assurance is required, submit evidence of financial assurance following the guidance in NUREG-1757, Volume 3.</p>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <i>Pending package completion</i>

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

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Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
7.1	<p>Radiation Safety Officer</p> <p>Provide the specific training and experience of the RSO, and include the specific dates of training in radiation safety.</p> <p>Provide alternative information demonstrating that the proposed RSO is qualified by training and experience (e.g., Board Certification by the American Board of Health Physicists, completion of a bachelor's and/or master's degree in the sciences with at least one year of experience in the conduct of a radiation safety program of comparable size and scope).</p> <p style="text-align: center;">OR</p>				<input type="checkbox"/> <i>on file with application</i> <input type="checkbox"/>
7.2	<p>Authorized Users And Radiation Workers</p> <p>Provide either of the following:</p> <p>A statement that: "Before using licensed material, authorized users will receive the training described in Appendix D of NUREG-1556, Volume 18, Revision 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses.'"</p> <p style="text-align: center;">OR</p> <p>A description of the training and experience for proposed authorized users.</p> <p style="text-align: center;">AND</p> <p>A description of the radiation safety training involving the use of licensed material that will be provided as a service to customers, if training is provided by the service provider.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>
8	<p>Training For Individuals Working In Or Frequenting Restricted Areas</p> <p>Provide either of the following:</p> <p>A statement that: "Before working in the vicinity of licensed materials, personnel will have successfully completed training commensurate with assigned duties."</p> <p style="text-align: center;">OR</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
8	<p>Training For Individuals Working In Or Frequenting Restricted Areas</p> <p>A description of the radiation safety training program, including topics covered, groups of workers, assessment of training, qualifications of instructors, and the method and frequency of refresher training.</p>				<input checked="" type="checkbox"/>
9	<p>Facilities And Equipment</p> <p>Low Risk Activities:</p> <p>For service providers performing low-risk activities, no facility description is required. Provide the location where these services will be performed.</p> <p align="center">AND</p> <p>Indicate if services will be performed at temporary jobsites. No facility description is required.</p> <p>High Risk Activities:</p> <p>For service providers performing the high-risk activities that will not take possession of radioactive material, provide the location where these services will be performed. Also indicate if services will be performed at temporary jobsites.</p> <p align="center">OR</p>				<input type="checkbox"/> <input type="checkbox"/>

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
9	<p>Facilities And Equipment</p> <p>For those services listed in the high-risk group where permanent facilities are specifically identified on the license, provide the following information, as applicable to the service the applicant intends to perform:</p> <p>Submit a drawing or sketch of the proposed permanent facility that fulfills the following requirements:</p> <ol style="list-style-type: none"> 1. Identify area(s) assigned for the receipt, storage, security, preparation, handling, waste storage, and measurement of radioactive materials, including sealed sources and devices. 2. Show the relationship and distance between restricted areas and adjacent unrestricted areas. 3. Indicate the scale, or include dimensions on each drawing or sketch. The same scale should be used for all sketches and drawings. The recommended scale is 1/4 inch = 1 foot. Drawings to this scale that do not fit on 8-1/2 x 11-inch paper may be provided as sectional drawings. Please also include a compass directional arrow to indicate "North." 4. Specify shielding materials (e.g., concrete, lead) and means for securing radioactive materials from unauthorized removal. 5. Illustrate area(s) where explosive, flammable, or other hazardous materials may be stored; 6. Identify area(s) where radioactive materials may become airborne. The diagram should contain descriptions of the ventilation systems, with pertinent airflow rates, filtration equipment, sample collection points, and monitoring systems; 				<p><i>In license application</i></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
9	<p>Facilities and Equipment</p> <p>7. Identify specialized handling tools, facility safety interlocks designed to prevent operation of radiological safety systems, in the event that operation of a system could result in accidental exposure or release of material [e.g., high efficiency particulate air (HEPA) filters, ventilation system, safety door interlocks, etc.] or equipment;</p> <p>8. Identify radioactive waste handling equipment that includes, for example, incinerators, compactors, solidification equipment, hold-up tanks, and sample collection points;</p> <p>In addition, describe:</p> <p>1. Engineered safety systems (e.g., area monitors, interlocks, alarms);</p> <p>2. Protective clothing (such as latex or rubber gloves, lab coats or coveralls, respirators, booties, and face shields), auxiliary shielding, absorbent materials, secondary containers for wastewater storage for decontamination purposes, plastic bags for storing such items as contaminated items, etc., that will be available for use when handling unsealed or uncontained radioactive materials;</p> <p>3. The general location of each proposed permanent facility (e.g., an industrial park, an office complex) and its current use. If any proposed permanent facility is a private residence, provide diagrams of the installation that include the building, the proposed restricted area or areas, and adjacent areas, including above and below the restricted areas; provide commitments that restricted areas do not include residential quarters, and explain how radiation levels in unrestricted areas will be maintained at less than 1 mSv [100 mrem] per year.</p>			✓	<p>✓</p> <p>□</p> <p>✓</p> <p>✓</p> <p>✓</p>

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
9	Facilities and Equipment 4. The proposed nuclear laundry facilities, if applicable, used for contaminated protective equipment and clothing. Specify how the contaminated waste water from the laundry machines or sinks is disposed. Operating and emergency procedures should address decontamination of the laundry area and equipment.			✓	<input type="checkbox"/>
10	Radiation Safety Program				
10.1	Operating and Emergency Procedures Low Risk Activities: Applicants who perform low-risk licensed activities are not required to submit operating procedures but should provide emergency procedures for all likely scenarios. High Risk Activities: Applicants who perform high-risk licensed activities should submit their operating and emergency procedures for radiological conditions that might be encountered as part of their license application.				<input type="checkbox"/> <input checked="" type="checkbox"/>
10.2	Material Receipt and Accountability Provide the following statement: "We will develop, implement, and maintain procedures for ensuring accountability of licensed materials at all times." <p style="text-align: center;">AND</p> Provide the following statement, if applicable: "We will comply with the National Source Tracking System (NSTS) reporting requirements, as described in 10 CFR 20.2207." <p style="text-align: center;">AND</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>	

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
10.2	<p>Material Receipt and Accountability Provide either of the following:</p> <p>A statement that: "Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license. Records of inventory will be maintained for a period of 5 years from the date of each inventory, and will include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory."</p> <p style="text-align: center;">OR</p> <p>A description of the procedures for ensuring that no sealed sources have been lost, stolen, or misplaced.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
10.3	<p>Radiation Monitoring Instruments Provide one of the following:</p> <p>Describe the instrumentation that will be used to perform the required radiological surveys and state that: "We will use instruments that meet the radiation monitoring instrument specifications published in Appendix F of NUREG-1556, Volume 18, Revision 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses.' We reserve the right to upgrade our survey instruments as necessary."</p> <p style="text-align: center;">OR</p> <p>Describe the instrumentation that will be used to perform the required radiological surveys and state, "We will use instruments that meet the radiation monitoring instrument specifications published in Appendix F NUREG-1556, Volume 18, Revision 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses.' Additionally, we will implement the model radiation survey meter calibration program published in Appendix F of NUREG-1556, Volume 18, Revision 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses.' We reserve the right to upgrade our survey instruments as necessary."</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
10.3	<p align="center">OR</p> <p>Radiation Monitoring Instruments</p> <p>Describe alternative equipment and/or procedures for ensuring that appropriate radiation-monitoring equipment will be used during licensed activities, and that proper calibration and calibration frequency of survey equipment will be performed. Include a statement that: "We reserve the right to upgrade our survey instruments as necessary."</p>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
10.4	<p>Surveys</p> <p>Choose one of the following:</p> <p>Provide the following statement: "We will conduct surveys and maintain contamination levels in accordance with the survey frequencies and contamination levels published in Section 8.10.4 of NUREG-1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses.""</p> <p align="center">OR</p> <p>Submit a description of an alternative survey method and frequency for demonstrating how to evaluate a radiological hazard.</p>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.5	<p>Leak Tests</p> <p>Provide one of the following:</p> <p>A statement that: "Leak tests sample collection and analysis will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services to other licensees. Leak tests may be collected by the licensee using a leak test kit supplier's instructions. Such leak test kits will be supplied by an organization authorized by the NRC or an Agreement State to provide leak testing services."</p> <p align="center">OR</p>	<input type="checkbox"/>	<input type="checkbox"/>		

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
10.5	<p>Leak Tests</p> <p>A statement that: "Leak testing and analysis will be done by the applicant." Provide the information in Appendix G of this NUREG supporting a request to perform leak testing and sample analysis, and either (1) state that the applicant will follow the model procedures in Appendix G of NUREG-1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses, or (2) submit alternative procedures."</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
10.6	<p>Occupational Dose</p> <p>Provide one of the following:</p> <p>A statement that: "We will maintain, for inspection by the NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of the limits in 10 CFR 20.1502."</p> <p align="center">OR</p> <p>A statement that: "We will monitor individuals in accordance with the criteria in the Section 8.10.6, 'Radiation Safety Program—Occupational Dose' in NUREG-1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses.""</p> <p align="center">OR,</p> <p align="center">IN LIEU OF THESE STATEMENTS</p> <p>Provide a description of an alternative method for demonstrating compliance with the referenced regulations.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		<input checked="" type="checkbox"/>

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
10.7	Public Dose No response is required from the applicant in a license application, but compliance will be evaluated during inspection.				
10.8	Transportation No response is needed from applicants during the licensing phase. Transportation issues will be reviewed during inspection.				
10.9	Routine Maintenance Provide either of the following: A statement that: "We will implement and maintain procedures for conducting routine maintenance of devices according to each manufacturer's (or distributor's) written recommendations and instructions." OR Provide alternative routine maintenance procedures for NRC's review.	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.9	Nonroutine Maintenance Provide the following: Obtain prior NRC approval, if OEM replacement parts cannot be used, for sealed source shielding, the source driving unit, or other electrical or mechanical component that could expose the source, reduce the shielding around the source, or compromise the radiation safety of the device or the source AND	<input type="checkbox"/>		<input checked="" type="checkbox"/>	

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
10.9	<p>Nonroutine Maintenance</p> <p>A statement that: "We will have the device manufacturer (or distributor) or other person authorized by NRC or an Agreement State to perform nonroutine maintenance of devices."</p> <p style="text-align: center;">OR</p> <p>Provide alternative procedures for the NRC's review addressing the information listed in Appendix K of NUREG-1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses."</p>	<input type="checkbox"/>			<input type="checkbox"/>
10.10	<p>Audit and Review of Program</p> <p>No response is needed from applicants during the licensing phase. The licensee's program for auditing its radiation safety program may be reviewed during inspection.</p>				
10.11	<p>Security Program for Risk Significant Radioactive Material</p> <p>Licensees must ensure the security and control of licensed material.</p> <p>In addition, 10 CFR Part 37 describes increased security measures for certain types and amounts of radioactive material.</p> <p>No response is required from the applicant or licensee. Compliance with access authorization and security program requirements may be reviewed during NRC inspections.</p>				

Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

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Table B-4. Items 5.3 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal (Continued)

Item Nos.	Title and Criteria	Yes	No	N/A	Description Attached
11	<p>Waste Management</p> <p>OR</p> <p>If needed, the applicant should request authorization for extended interim storage of waste. Applicants should use the references at the end of Section 8.11, "Waste Management" of this NUREG for guidance and submit the required information with the application.</p>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>