(1) By having an NPA emerge as a “net effect” of the current licensing process rather than as an explicit request, non-proliferation is not given an adequate level of attention. The petitioner states that, under the current process, proliferation issues are spread across the entire license application process. As a result, the current process may overlook some properties of the new technology which may merit attention in a proliferation context.

(2) Key questions that indicate the degree of proliferation risk of an ENR technology may not be addressed under the NRC’s “net effect” approach. The petitioner believes that a proliferation assessment would be incomplete without a consideration of these key questions, including, but not limited to:

- Could the design of the technology be altered easily to allow for diversion of nuclear material?
- Could the facility be constructed and operated in a manner that is undetectable?
- Are there unique components of the technology whose acquisition would indicate the construction of such a facility and could be easily tracked?

The petitioner proposes that the NRC amend its regulations at subpart D of 10 CFR part 70, “Domestic Licensing of Special Nuclear Material,” to include a requirement for an NPA as follows:

§ 70.22  Contents of applications.

(o) Nuclear Proliferation Assessment. Each applicant for the license of an enrichment or reprocessing facility shall include an assessment of the proliferation risks that construction and operation of the proposed facility might pose.

The petitioner believes that including a specific requirement for an NPA in the NRC regulations is consistent with the NRC requirement to evaluate whether the issuance of a license “would be inimical to the common defense and security or to the health and safety of the public.”

Dated at Rockville, Maryland, this 16th day of December, 2010.

For the Nuclear Regulatory Commission,

Annette Vietti-Cook,
Secretary of the Commission.

[FR Doc. 2010–32242 Filed 12–22–10; 8:45 am]
spas with 120 volt electricity—be excluded from the coverage of energy conservation standards for incandescent reflector lamps prescribed by or promulgated under section 325(i) of the Energy Policy and Conservation Act (EPCA), 42 U.S.C. § 6295(i), as amended, and (2) amend the Department’s current energy conservation standard at 10 CFR § 430.32(n)(6)(ii) and 10 CFR § 430.2 (definitions).

As grounds for this petition, NEMA believes that the rulemaking will conclude: (a) that the energy conservation standards for this unique type of lamp will not result in significant energy savings, and (b) that this type of lamp is designed for special applications or has special characteristics not available in reasonably substitutable lamp types. 42 U.S.C. § 6295(30)(E). As further grounds for this rulemaking, NEMA believes that the rulemaking will show that the application of energy conservation standards for incandescent reflector lamps to this type of lamp—which has unique size, performance, and capacity for use in certain types of hot tub spas that require smaller dimensions—would lead to their unavailability in the United States. Cf., 42 U.S.C. § 6295(4)-(4).

Separately, NEMA requests the Department stay enforcement of its energy conservation standard as applied to this type of lamp pending the outcome of this rulemaking, so that sales of this type of lamp may be resumed. For the reasons explained below, the two manufacturers who previously distributed the 100 watt R20 short lamp in commerce recently realized that they harbored a mistaken belief that this type of underwater service lamp was excluded from coverage under EPCA. Both companies immediately withdrew the product from the market when they realized their mistake. This decision has created significant hardships for hot tub spa manufacturers that use this unique lamp type, as there is no known substitute for it on the market. This also means that owners of hot tub spas that use the underwater service lamp type will not have replacement lamps available for their spas when their lamps reach end of life.

**Definition of the Lamp Type for Which a Rule Is Sought**

The lamp type is a 100 watt R20 short incandescent reflector lamp. The term “short” refers to the fact that the maximum overall length (MOL) of the lamp is 3 7/8”, in contrast to the normal overall length of 4 1/8”. By this petition, NEMA proposes that 10 CFR § 430.2 be amended as follows to include a new definition of “R20 short” after the definition of “R20 incandescent reflector lamp”:

### § 430.2 DEFINITIONS.

**For purposes of this part, words shall be defined as provided for in section 321 of the Act and as follows:***

** *(n)* **

R20 incandescent reflector lamp means a reflector lamp that has a face diameter of approximately 2.5 inches, as shown in figure 1(R) on page 7 of ANSI C79.1-1994 [incorporated by reference; see § 430.3].

R20 short means an R20 incandescent reflector lamp that has a maximum overall length of 3 7/8 inches.

**Nature of the Exclusion for Which a Rule Is Sought**

10 CFR § 430.32(n)(6)(ii) currently excludes from the energy conservation standards applicable to the covered product “incandescent reflector lamp” three types of incandescent reflector lamps. By this petition, NEMA proposes that 10 CFR § 430.32(n)(6)(ii) be amended to add a new paragraph (D) to this section as shown below.

### § 430.32 ENERGY AND WATER CONSERVATION STANDARDS AND THEIR EFFECTIVE DATES.

The energy and water (in the case of faucets, showerheads, water closets, and urinals) conservations standards for the covered product classes are:

<table>
<thead>
<tr>
<th>Class</th>
<th>Standards</th>
</tr>
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<tbody>
<tr>
<td>*</td>
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<td>*</td>
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<td>*</td>
<td>*</td>
</tr>
<tr>
<td>(n)</td>
<td>General service fluorescent lamps and incandescent reflector lamps</td>
</tr>
</tbody>
</table>

**(6)(ii)(A) Subject to the exclusions in paragraph (n)(6)(ii) of this section, the standards specified in this section shall apply to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008.**

**(B) Subject to the exclusions in paragraph (n)(6)(ii) of this section, the standards specified in this section shall apply to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after June 1, 2008.**

**(ii) The standards specified in this section shall not apply to the following types of incandescent reflector lamps:**

<table>
<thead>
<tr>
<th>Class</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>Lamps rated at 50 watts or less that are BR30, BR35, BR40, or BR40 lamps</td>
</tr>
<tr>
<td>(B)</td>
<td>Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps</td>
</tr>
<tr>
<td>(C)</td>
<td>R20 incandescent reflector lamps rated 45 watts or less; or</td>
</tr>
<tr>
<td>(D)</td>
<td>R20 short incandescent reflector lamps rated at 100 watts that are designated and marketed specifically for pool and spa applications with—</td>
</tr>
<tr>
<td>(I)</td>
<td>The designation appearing on the lamp packaging; and</td>
</tr>
<tr>
<td>(II)</td>
<td>Marketing materials that identify the lamp as being for pool and spa applications.</td>
</tr>
</tbody>
</table>

The lamp at issue comes in two different voltage configurations: 12V and 120V. Some state and local jurisdictions allow pools and spas to be supplied with 120V electricity; the remainder require pools and spas to be supplied with much lower voltage electricity 2 via a distribution transformer that steps down voltage to the pool lights where the 12 volt lamp is used. NEMA has not been able to find a list of which jurisdictions have adopted one requirement over the other. The so-called “line voltage” (120V) jurisdictions appear to include Florida, and a number of jurisdictions primarily located in the Midwest. The statutory definition of “incandescent reflector lamp” only includes such lamps that are within the range of 115 volts and 130 volts, see 10 CFR § 430.2, which leaves the 12 volt version of the 100 watt R20 short lamp unregulated under EPCA.

**Why the Exclusion Is Needed**

Hot tub spa manufacturers design the dimensions of some hot tubs so that the underwater lighting can only accommodate a luminaire and lamp with a maximum overall length of 3 and 7/8 inches. They also seek a luminaire/lamp combination that is designed to be submerged in the spa with a voltage input providing diffuse (not directed) illumination that requires a wide beam spread. The 100 watt R20 short is the only lamp that meets the spa manufacturers’ specifications and is used in these particular spas. These 100 watt lamps have a heat shield inside the base to protect against high heat damaging the cement that joins the base to the glass envelope, and the filament has been specially engineered to provide the desired beam spread required by spa manufacturers. Given the underwater application in waters in excess of 100 degrees F, an electronic lamp product is not an alternative.

Current energy conservation standards for a 100 watt incandescent reflector lamp require that the lamp have a 14 lumen output per watt. 42 U.S.C. § 6295(1)(I)(B). The 100 watt R20 short has lumens of 900 to 1000, which translates to a maximum lumens per watt of 9 or 10. It is not possible to increase the lumens in this lamp without increasing the maximum overall length of the lamp because a higher lumen filament would operate at a higher temperature, which could potentially cause the lamp to burst and/or damage the luminaire and/or hot tub. As this lamp is used in an underwater fixture, the implications surrounding potential safety hazards would prohibit the use of higher lumen lamp in this application. Additionally, a higher lumen filament would result in severely shortened lamp life that would be unacceptable in spa applications.

Until September 2011, there were only two known manufacturers of the 120 volt 100 watt R20 short lamp supplying in the United States to spa manufacturers whose spa designs required this lamp. They had been supplying this lamp on the mistaken belief that EPCA had excluded pool and underwater service lamps from coverage. They relied on the Federal Trade Commission’s 1994 lamp labeling rule, which treated an incandescent reflector lamp as a general service incandescent lamp, see 16 CFR § 305.2(6), and applied EPCA’s exclusions from the definition of general service incandescent lamp 4 to incandescent lamps that are “incandescent reflector lamp (commonly referred to as a reflector lamp) means any lamp in which light is produced by a filament heated to incandescence by an electric current, which: Is not colored or designed for rough or vibration service applications that contains an inner reflective coating on the outer bulb to direct the light; has an R, PAR, ER, BR, BPAR, or similar bulb shapes with an E26 medium screw base; has a rated voltage or voltage range that lies at least partially in the range of 115 and 130 volts; has a diameter that exceeds the range of 115 volts and 130 volts, see 10 CFR § 430.2, which leaves the 12 volt version of the 100 watt R20 short lamp unregulated under EPCA.

**3** This particular language relating to designation on lamp packaging and marketing materials appears in Section 321 of EPCA with respect to the definitions of “rough service lamp,” “shatter resistant lamp,” and “vibration service lamp,” all of which are currently included from energy conservation standards applicable to general service incandescent lamps.

**4** Sometimes this requirement is expressed as less than a maximum voltage (e.g. <18V).

**5** EPAct 1992, amending EPCA, originally excluded “swimming pool” and “other underwater
In the 2009 rulemaking for incandescent reflector lamps, DOE considered a proposal to extend the upper bound of the covered product to 505 watts (from 205 watts) and stated, "DOE analyzed commercially-available product in manufacturer catalogs to assess the prevalence of products with wattages greater than 205W. Based on this research, DOE believes that IRL with rated wattages greater than 205W comprise a very small portion of the market and, therefore, do not represent substantial potential energy savings." 74 Fed.Reg. at 34092 (July 14, 2009). NEMA believes that the portion of the market represented by the 120V, 100 watt, R20 short is smaller than the portion of the market of incandescent reflector lamps represented by lamps above 205 watts, and, because of their lower wattage, less energy is consumed. Thus, a similar conclusion appears to be warranted in the case of these unique lamps.

This type of lamp is designed for special applications or has special characteristics not available in reasonably substitutable lamp types.

There are presently no substitute products on the market for this application. As noted above, the product is used for a unique specification in hot tub spas where space limitations in the design of the spa will not permit a luminaire sized for a lamp with a normal 4½" MOL, and instead requires a "short" lamp with an MOL of 3". Second, this R20 short lamp was specifically designed to meet the underwater illumination requirements of hot tub spa manufacturers, including beam spread and lumens.

Consumers are not likely to substitute this lamp for other types of residential covered lamps subject to energy conservation standards.

The price of the replacement 120V, 100 watt, R20 short lamp at retail ranges from $10–$20 per lamp. It is relatively expensive compared to other types of incandescent reflector lamps used in residential applications—more than twice the price. Furthermore, since the product is marked on the packaging for pool and spa applications, this deters consumers from considering the lamp for general lighting applications in the home.

These lamps are sold through different retail channels than other residential covered lamps, and generally not found at stores where consumers are shopping for general residential lighting applications. Consumers will have to incur greater search costs to find this type of lamp, and for those who do find it, they will see that it is for pool and spa applications and that it costs substantially more.

This lamp is not excluded from coverage under the Energy Policy and Conservation Act, it will result in the unavailability of the lamp in the United States.

To the best of NEMA’s knowledge and its manufacturers, the decision of the two manufacturers of this 120 volt lamp to withdraw the product from the market has resulted in its unavailability.

If there is additional information that NEMA can provide in support of this petition, please contact the undersigned at Cla_Silcox@nema.org or by telephone at (703) 841–3220.