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NUCLEAR REGULATORY COMMISSION

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Comments on a Request for Rulemaking from Mayor Joseph Scarpelli of Brick, NJ  
Concerning the License Renewals of Nuclear Power Plants  
File No. PRM-54-03

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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

Comments Submitted Electronically on November 29, 2005

Comments Submitted To:

Annette L. Vietti-Cook, Secretary  
U.S. Nuclear Regulatory Commission  
450 Fifth Street, NW  
Washington, DC 20555-0001  
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Attention:

Rulemakings and Adjudications Staff

Date:

November 29, 2005

### I. Introduction

I thank the Nuclear Regulatory Commission ("the Commission") for the opportunity to comment on this petition for proposed rulemaking. The processes of petitioning and commenting are tributes to the level of democratic participation that our system affords. I write these comments on my own behalf, as a third year student at Villanova University School of Law. I also write these comments as a resident of central New Jersey, not far from Mayor Scarpelli or the Oyster Creek Nuclear Generating Station. From this vantage point, I share Mayor Scarpelli's concern for public safety. At the same time, however, I also appreciate the need for affordable sources of electricity, particularly in this time of rising energy prices.

I oppose Mayor Scarpelli's petition for rulemaking, and support the Commission's current process of license renewal. The current process is more than sufficient to provide for the safety of local residents, while not being overly burdensome on industry. Mayor Scarpelli's proposal would unnecessarily complicate the process for both licensees and the Commission. If carried out, such stricter license renewal standards would certainly result in the closing of many plants throughout the country. Given the recent rise in oil and gas prices, as well as the newfound need for energy independence, such a result is unacceptable. If Mayor Scarpelli has serious concerns about the future of

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Oyster Creek, he has ample opportunity to voice those concerns in the current renewal process.

## II. Background

The Oyster Creek Nuclear Generating Station began generating power on December 1, 1969, pursuant to a 40-year license that was granted on April 4 of that year. During Oyster Creek's 36-year operating life, its owners<sup>1</sup> have invested over \$1.2 billion in capital improvements, including a recent \$20 million security upgrade completed last year. Oyster Creek has continuously operated, providing New Jersey with electricity without any incidents.

With its license to expire on April 4, 2009, AmerGen formally applied to the Commission for a license renewal. On July 22, 2005, AmerGen submitted an application for a license extension, which would keep Oyster Creek operational until 2029. Strict requirements governing such renewals are provided for in NRC Regulations.<sup>2</sup> The Commission is authorized to promulgate these regulations pursuant to 42 U.S.C. § 2133.

Despite these requirements, some believe that the Commission is too permissive in granting license renewals. Concerns over safety, national security, and the environment have led some to petition the Commission to enact regulations that are more restrictive on renewals. I am responding to one such petition, filed by Joseph Scarpelli, Mayor of Brick Township, New Jersey, along with the Sierra Club and the N.J. Environmental Federation on July 20, 2005. In his petition, Mayor Scarpelli requests that 10 C.F.R. Part 54 be amended and otherwise altered to make license renewal "a *de novo* review." Under his plan, applications for license renewal would be treated exactly like an application for new construction and issuance of a license.

In the Federal Register, the Commission has notified the public of Mayor Scarpelli's petition, and has requested public comments.<sup>3</sup> I file my comments in response to this request.

## III. Discussion

In my discussion, I will first address the particular issues presented by Mayor Scarpelli's petition. Adhering to the format of the Mayor's petition, I will first discuss the "specific issues" which support his proposal, then I will address his perceived problems with the current process, and finally I will respond to the six "key renewal issues" that the petition addresses. Following that, I will add my own concerns with Mayor Scarpelli's proposal. These concerns include the inevitable closing of nuclear power plants, in New Jersey and nationwide, and the resulting rise in energy costs to consumers. Second, I will

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<sup>1</sup> Oyster Creek was originally built and operated by Jersey Central Power and Light, a wholly-owned subsidiary of GPU. GPU sold Oyster Creek to its current owner, AmerGen, in 2000.

<sup>2</sup> NRC Regulations can be found in Title 10 of the Code of Federal Regulations. In particular, requirements governing license renewals are in 10 CFR Part 54.

<sup>3</sup> 70 Federal Register 54,310.

point out that if Mayor Scarpelli has concerns over the operation of Oyster Creek, he will have ample opportunity to voice these concerns through the current renewal process. Because Oyster Creek appears to be his primary focus, amending NRC regulations would be a horrendously overinclusive remedy to a local problem. Finally, I will cite both local and statewide public support for the renewal of Oyster Creek's license.

*A. Mayor Scarpelli's "Specific Issues" Do Not Support His Proposal, Neither as it Relates to Oyster Creek, nor to Commercial Nuclear Power Plants*

In an attempt to bolster his position, Mayor Scarpelli points out a few incidents which he claims to have "raised concerns among many people" about the use of commercial nuclear power. Mayor Scarpelli's proposal, however, does not address such broad concerns. Instead, his proposal involves older plants in densely populated areas. Not one of the four incidents that Mayor Scarpelli cites involves a plant similarly situated to Oyster Creek. In fact, only two concern nuclear power plants overall, and one bears no relation to nuclear power at all.

First, Mayor Scarpelli recalls the 1979 incident at Three Mile Island. While Three Mile Island is located near the city of Harrisburg, Pennsylvania, it did not involve an old plant. In fact, the incident at Three Mile Island occurred rather early in its operating life, less than five years after it began generating power. Tightening the requirements for license renewal could have had no impact on Three Mile Island.

In fact, I would argue that Three Mile Island actually cuts against Mayor Scarpelli's proposal. While this incident is the most serious accident at a U.S. nuclear power plant, its impact on the environment and health of local residents was minimal. No deaths or injuries were reported. Numerous environmental studies of the area showed negligible impact.<sup>4</sup> Moreover, the incident at Three Mile Island has brought about newer technologies, more thorough training, and tighter regulations, which has made nuclear power more safe.

Mayor Scarpelli also raises the 1986 catastrophe at Chernobyl, in the former Soviet Union. There, 31 people were actually killed, and an 1100 square mile area around the plant was evacuated. While this represents the absolute worst case scenario for nuclear accidents, the Commission insists that another Chernobyl could never happen in the United States. Safety was not a primary concern in the Soviet Union, and so the reactors at Chernobyl did not have even the most rudimentary of safety features.<sup>5</sup> Citing Chernobyl as a reason for concern over U.S. nuclear safety is rather misleading.

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<sup>4</sup> For this, as well as additional information concerning the incident at Three Mile Island, read the NRC's Fact Sheet on the Accident at Three Mile Island, available at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/3mile-isle.html>.

<sup>5</sup> For more information on the Chernobyl accident, read the NRC's Fact Sheet on the Accident at the Chernobyl Nuclear Power Plant, available at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fschernobyl.html>.

Mayor Scarpelli also makes mention of the “controversy about Yucca Mountain” as another issue in support of his position. Although there is merit to the regulatory debate over the long-term storage of nuclear materials at Yucca Mountain, this issue bears no relation to the contention that older plants should be treated with greater scrutiny. Rather, the fact that the federal government is moving forward with a Yucca Mountain storage facility only highlights the long-term safety of nuclear power.

Finally, Mayor Scarpelli cites September 11, 2001, as a reason for concern. While it is true that the events of September 11th have made all Americans acutely aware of the threat of terrorism, those events bore no relationship to nuclear power. Certainly, one can conceive of a future terrorist plot to sabotage a nuclear power plant, but there is no reason why older plants would be particularly susceptible to sabotage. In fact, Oyster Creek spent \$20 million upgrading plant security last year alone. In fact older plants, with veteran employees and years of security upgrades, may be more prepared for a terrorist infiltration.

*B. The Current Process of License Renewal is Sufficient to Protect the Health and Safety of Nearby Residents, While Keeping the Process Economically Feasible*

Following the issues raised in his petition, Mayor Scarpelli contends that the current license renewal process is inadequate. He argues that the renewal process is too permissive, provided there are no significant issues with systems, structures, and components. Contrary to Mayor Scarpelli’s contention, the renewal process is quite stringent, and more than adequate to provide for public and environmental safety.

First, the age of a power plant is not indicative of its condition. A license is not carte blanche for a power company to operate a nuclear plant for 40 years. The Commission continuously regulates, oversees, and inspects every plant in the U.S. Operators must maintain a schedule for testing, maintenance, and equipment replacement.<sup>6</sup>

Nevertheless, when the time for license renewal draws near, inspection and review are very high priorities. The Commission closely scrutinizes the extensive information contained in the renewal application and may request additional information. I had the opportunity to witness the level of scrutiny the Commission uses in reviewing applicant-submitted information at (insert name of meeting here). At the meeting applicants and Commission employees discussed the decommissioning of a particular chemical plant. If the Commission requires such exacting standards for decommissioning, the procedures for keeping a plant in operation must be more demanding.

Not only does the Commission review the data prepared by the applicant, but it also conducts a number of its own investigations. The Commission will conduct at least

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<sup>6</sup> These regulations are found throughout the Commission’s section of the Code of Federal Regulations, including 10 CFR Parts 2, 20, 26, 51, 52, 54, 73, 75, and 100.

six inspections of the site: three safety inspections by the regional NRC office, one by the national office, and two environmental inspections. Beginning to end, the entire process typically takes 22 months, at a cost to the applicant of several million dollars.<sup>7</sup>

While discussing plant licensing and license renewals, it is worth mentioning that no technical reason exists for giving a 40-year expiration date to plant licenses. When writing the Atomic Energy Act of 1954, the concept of a term-specified license was borrowed from the Federal Communications Act of 1934, which gave term licenses to broadcasters. The term of 40 years was actually chosen for accounting reasons. Forty years happened to be the industry amortization period for an electric power plant. After the 40-year period the plant owner has fully recovered its initial capital investment, making the owner's decision to seek renewal an easier one.<sup>8</sup>

Although Mayor Scarpelli's unease in permitting Oyster Creek, which is already 36 years old, to operate for another 20 years, is initially understandable, it is also unfounded. As stated above, plant age is not indicative of safety or performance. To date, nearly a third (33 of 103) of reactors in the U.S. have applied for and received license extensions. None of these plants have any environmental or safety incidents on record.<sup>9</sup>

Mayor Scarpelli is most concerned with the growth in population in the area surrounding Oyster Creek. According to the 1970 census, Ocean County, where Oyster Creek is located, had a population of 208,000. Thirty years later that figure has more than doubled, to 510,000. Likewise, the population of his hometown, Brick, NJ, has more than doubled in the that time, from 35,000 to 77,000. While this growth is significant, Ocean County's population density of 326 people per square mile remains well below the state average of 1,030. The increase in population, without more, would likely be insufficient to deny a license, even under a *de novo* review.

### C. Key Renewal Issues

Next in his petition, Mayor Scarpelli lists several "Key Renewal Issues" which he wishes the Commission to consider while reviewing Oyster Creek's application. Some of these questions do warrant attention, and certainly can be addressed. Nevertheless, these questions are plant-specific, and can and will be addressed during the current renewal process. Moreover, these issues do nothing to support the sweeping changes that Mayor Scarpelli proposes in his petition. Each of these questions will be briefly discussed below.

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<sup>7</sup> Much of the information on the license renewal process comes from the Nuclear Energy Institute, available at <http://www.nei.org/index.asp?catnum=4&catid=126>. Some information also comes from the License Renewal Process Fact Sheet compiled by AmerGen, and available at <http://www.oystercreeklr.com/LR%20Process%20Fact%20Sheet.pdf>.

<sup>8</sup> For more information on amortization costs and the renewal process, see "Economics Drive License Renewal Decision," available at <http://www.nei.org/doc.asp?docid=497>.

<sup>9</sup> *Id.*

1. Could a new plant, built and designed by current standards, be licensed on the same site today?

In this issue, Mayor Scarpelli returns to his concern about the population growth in the Oyster Creek vicinity. Admittedly, the Commission considers population density as one factor. Commission regulations do “prefer” areas of low population density. This criterion is neither necessary nor sufficient however, as primary concerns include safety, environmental, economic, or “other factors.”<sup>10</sup> Indeed, nearly every nuclear power plant in the northeast would need to shut down if they were not permitted to operate near population centers. At the very least, no nuclear reactors could operate in the State of New Jersey.

As pointed out earlier, Ocean County’s population density is low by New Jersey standards, as it is significantly below the state average. In fact, Ocean County may have the best balance of factors, making it an ideal location for a nuclear power plant. In a footnote to its regulations, the Commission states that site with a higher population density is desirable when it possesses other qualities, such as “better access to skilled labor for construction, better rail and highway access, shorter transmission line requirements, or less environmental impact on undeveloped areas, wetlands or endangered species. . . .”<sup>11</sup>

Indeed, central New Jersey certainly offers an abundance of skilled labor, numerous rails and highways, and proximity to energy consumers. Moreover, it is less environmentally fragile than other areas of lower population density within the state, such as the meadowlands, the pine barons, or the southern marshes.

2. Would Oyster Creek receive a license today with its current reactor?

If built today, Oyster Creek may not be constructed as it currently exists. On its own, however, this critique does not question Oyster Creek’s safety. By comparison, Ford would no longer build Model T’s. With proper safety upgrades, however, many are permitted on the road today, and continue to operate safely.

The Commission has conducted extensive research on the effects of plant aging. By extension, this included studying the continued operation of outmoded plant designs. Based on this research, the Commission concluded that “aging phenomena” are manageable, and are not automatically a threat to health, safety, or the environment.<sup>12</sup>

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<sup>10</sup> “Reactor sites should be located away from very densely populated centers. Areas of low population density are, generally, preferred. However, in determining the acceptability of a particular site located away from a very densely populated center but not in an area of low density, consideration will be given to safety, environmental, economic, or other factors, which may result in the site being found acceptable.” 10 C.F.R. Part 100.21(h).

<sup>11</sup> *Id.*, fn. 3.

<sup>12</sup> From the NRC’s Backgrounder on Reactor License Renewal, available at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/license-renewal-bg.html>.

Implicit in this concern is that Oyster Creek is somehow less safe than a newly-constructed plant. If Mayor Scarpelli is correct, such a problem will be discovered by the Commission during the extensive application review process. The proper functioning of Oyster Creek's safety systems, as well as maintaining a schedule for replacing old parts is a critical focus of the Commission's review. If it concludes that Oyster Creek is not structurally fit for another 20 years of service, it certainly will not grant the renewal. At any rate, the current process adequately addresses the Mayor's concern, making his proposal unnecessary.

3. In light of the terrorist attacks of 9/11, would Oyster Creek's storage system, which is located close to Route 9, be acceptable today?

The concerns for safety exhibited here by Mayor Scarpelli are certainly understandable. Since 9/11, concerns over the detonation of a "dirty bomb" has entered our collective consciousness for the first time. Terrorism aside, the storage of nuclear waste is arguably the most contentious aspect of nuclear power generation.

The Mayor's proposal simply does not address this problem, however. Mayor Scarpelli's petition raises concerns over the operation of an aging plant. He seeks to make licensing renewal more difficult in general, and perhaps desires to close Oyster Creek in particular. If the Mayor's proposal were acceptable and Oyster Creek were closed, however, that nuclear waste would not simply disappear. If not stored close to the plant, this waste would have to be transported to a new location.

Not only does this proposal not address the issue of nuclear waste, it may actually exacerbate the problem. As stated above, if waste were not stored close to the plant, it would have to be shipped. Rather than limiting the area of potential harm to one relatively isolated storage site, Mayor Scarpelli suggests he would instead subject numerous towns and cities to it. This idea of spreading the harm is not good for anyone.

Moreover, this generalized reaction to nuclear power could harm long-term plans for nuclear waste storage. It is this perception of nuclear power, espoused here by Mayor Scarpelli, that has resulted in repeated delays in completing the Department of Energy's plans for a long-term geologic repository for nuclear waste at Yucca Mountain. Were it not for such reactionary views, our nuclear waste problems may well have been solved by now.

4. Would the tremendous growth of Ocean County over the past four decades. . . inhibit Oyster Creek's likelihood of receiving an operating license?

In asking this question, Mayor Scarpelli is essentially restating the issue he raised in question (1). As stated above, the population growth of Ocean County would not necessarily exclude the siting of a nuclear plant there. On the contrary, Ocean County offers a number of positive factors.

In granting a license, the Commission would likely offset population density matters with an increased focus on safety, pursuant to 10 C.F.R. Part 100.21(h). Although the Commission generally prefers areas of low population density, it does find as acceptable "site[s] located away from a very densely populated center but not in an area of low density."<sup>13</sup> Ocean County, New Jersey, is situated within 50 miles of two of the largest cities in the United States: New York and Philadelphia. This makes Oyster Creek particularly well-sited, as it may provide electricity for Philadelphia, New York, and New Jersey. Moreover, as stated above, Ocean County's population density is less than a third of the state average. Oyster Creek's location in a relatively remote part of the state would still make its current site acceptable to the Commission.

5. Would a license be permitted in light of the public opposition to the plant?

The "public opposition" that Mayor Scarpelli cites is the concern raised by a limited number of congressional representatives, municipalities, and Ocean County freeholders. The opinions held by these politicians are not as staunchly opposed to Oyster Creek as Mayor Scarpelli would suggest, however. Moreover, they do not reflect any widespread public sentiment.

The positions raised by Representatives Smith, Saxton, and Pallone are significantly more restrained than Mayor Scarpelli's. Of the three, only Representative Pallone has actually spoken against license renewal.<sup>14</sup> The only "opposition" that Representatives Saxton and Smith have voiced is a bill which expresses some concern over Oyster Creek's renewal.<sup>15</sup> Far from expressing any particular opinion on the issue, the bill merely calls on the NRC to make assessments of the plant (which it would do anyway).<sup>16</sup> No other national politician has expressed any strong feelings about Oyster Creek. This includes New Jersey's two democratic senators, John Corzine and Frank Lautenberg.<sup>17</sup>

Some strong opposition has come from the municipalities, however. According to Mayor Scarpelli, 21 municipal governments have passed resolutions expressing at least some concern over Oyster Creek's license renewal. In fact, 17 have explicitly opposed renewal.<sup>18</sup> Nevertheless, I do not find this to be an accurate gauge of public opinion. Municipal government hearings do not always reflect the majority opinion, but merely the opinions of the participants.

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<sup>13</sup> 10 C.F.R. Part 100.21(h).

<sup>14</sup> Ledyard King, "Growing Chorus Opposes Plant," *The Asbury Park Press*, June 12, 2005, available at <http://www.app.com/apps/pbcs.dll/article?AID=/20050612/NEWS/506120390>.

<sup>15</sup> H.R. 966, 109th Cong. (2005).

<sup>16</sup> This bill was introduced over 8 months ago, was referred to the House Energy and Commerce Committee, and has not moved since. I believe that this bill is a simple political gesture from Smith and Sexton, who both represent Ocean County and wish to appear sympathetic to their constituency.

<sup>17</sup> King, *supra* note 12.

<sup>18</sup> *Id.*

Moreover, the Ocean County Board of Chosen Freeholders have not taken a hard-line stance. They have acknowledged the concern shown by the municipalities, but have not taken any strong action. At best, they have passed a resolution which supports the bill proposed by Smith and Saxton.<sup>19</sup> In truth, public opinion appears to support the work of the NRC as it is currently carried out.

6. Should not. . . new scientific studies and other relevant scientific data. . . be taken into account when considering Oyster Creek's license renewal application?

In this point, Mayor Scarpelli refers to two reports released earlier this year by the National Academy of Sciences. One implicates the terrorist threat to nuclear power facilities, while the other concerns the effectiveness of low-level radiation. Neither of these reports, however, appear to support Mayor Scarpelli's arguments about Oyster Creek or licensing renewals generally.

In April of this year, the National Academy of Sciences released a report which called into question the security of the spent fuel storage pools. Nuclear power plants keep their spent fuel in "temporary" storage in pools of water near the plant. Once a permanent geological repository (such as Yucca Mountain) is opened, these spent fuel rods will be transported there. In the meantime, lax security at these pools make them a potentially attractive target for terrorism.<sup>20</sup>

While the Commission could take this report into account, making license renewals stricter would not address the problem. Even if Oyster Creek were to shut down, its spent fuel rods still would need to be stored. This report only highlights the need for a permanent geologic repository; it does not support tougher license renewal procedures.

Then in June, the Academy released another report, this time about exposure to low level radiation.<sup>21</sup> In this report, the Academy claims that exposure to even the smallest amounts of radiation can have a detrimental effect on health. While this is a concern of the Commission, this report makes only minor mention of nuclear power generation. According to the report 82 percent of human exposure is natural, and 18 percent is man-made. The vast majority of man-made radiation exposure is caused by x-rays and nuclear medicine. "Occupational exposure, fallout, and the use of nuclear fuel"<sup>22</sup> account for 5 percent of man-made radiation. That is 5 percent of 18 percent, or 0.9 percent. Also, keep in mind that this figure includes a broad range of uses of nuclear fuels, not just power generation.

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<sup>19</sup> Freeholder Meeting Agenda, August 17, 2005, available at <http://www.oceancountygov.com/county/frehldrs/0817agn.html>.

<sup>20</sup> A free synopsis of the report is available at <http://www4.nationalacademies.org/news.nsf/isbn/0309096472?OpenDocument>.

<sup>21</sup> A free synopsis of this report is available at <http://www4.nationalacademies.org/news.nsf/isbn/030909156X?OpenDocument>.

<sup>22</sup> One assumes that nuclear power generation is a small subset of this category

In short, the exposure from nuclear power plants is minimal. Human beings are exposed to 300 millirems (mrems) of natural background radiation each year. Living at the gate of a nuclear power plant for one year exposes a person to three mrems. By comparison, one cross-country flight exposes a person to 5 mrems, and a single x-ray creates over 20 mrem of exposure.<sup>23</sup>

*D. Requiring power plants to bear the increase costs of Mayor Scarpelli's proposal would result in higher energy costs for consumers, and would likely be prohibitive of continued plant operation.*

Currently, nuclear power is the cheapest way to generate electricity. The cost of power generation is typically measured in cents per kilowatt-hour (¢/kWh). According to 2001 data, a nuclear power plant can generate electricity for less than 2¢/kWh. This figure has been steadily dropping from a high of over 3¢/kWh in 1987. By comparison, generating electricity with oil or natural gas hovers around 5-6¢/kWh.<sup>24</sup> These figures do not include capital costs (i.e., the cost of building the plant), taxes, and regulatory fees. Nuclear power remains the cheapest when these costs are considered, with generating costs of about 5¢/kWh.<sup>25</sup>

The current renewal process allows nuclear plants to lower their costs even further. By renewing a plant's license for 20 years, that plant can spread its capital costs over 60 years instead of 40. As a result, the total generating cost will drop accordingly. According to a 2004 University of Chicago report, this increased operating life can lower generating costs by 1¢/kWh or more.<sup>26</sup>

By contrast, nuclear regulations are extremely expensive. In 2000, the nuclear power industry spent nearly \$20 billion on regulatory costs, a 250% increase from 20 years earlier.<sup>27</sup> These ever-increasing regulatory costs can increase consumer electricity costs, and ultimately force plants to shut down. As a result of these increasing regulatory costs, five plants have closed in the past ten years.<sup>28</sup>

Mayor Scarpelli's proposal would drive this cost even higher. While the cost of licensing a new nuclear reactor can reach the hundreds of millions, renewing a license can cost between \$10 million and \$50 million.<sup>29</sup> Mayor Scarpelli would effectively eliminate the renewal option, forcing plants to pay for a new license. For Oyster Creek,

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<sup>23</sup> "Oyster Creek Brochure." Available at <http://www.oystercreeklr.com/Final%20Oyster%20Creek%20Brochure.pdf>.

<sup>24</sup> Uranium Information Centre, Ltd. "The Economics of Nuclear Power." May, 2005, available at <http://www.uic.com.au/nip08.htm>. Given the recent spikes in the prices of oil and natural gas, the generating costs of these fuels is certainly higher.

<sup>25</sup> *Id.* Adding these expenses to oil or natural gas generation increases their generating costs to 6-7¢/kWh, using 2001 fuel costs.

<sup>26</sup> University of Chicago, *The Economic Future of Nuclear Power*. August, 2004.

<sup>27</sup> Kenneth L. Mossman. "Restructuring Nuclear Regulations." *Environmental Health Perspectives*. January, 2003, available at <http://ehp.niehs.nih.gov/members/2003/5650/5650.html>.

<sup>28</sup> Christopher Seiple, "A Nuclear Recovery," *Public Utilities Fortnightly*, May 15, 1999, at 10-11.

<sup>29</sup> Nainish K. Gupta & Herbert G. Thompson, Jr. "The Market Value of Nuclear Power." *Electricity Journal*, October, 1999.

requiring such a *de novo* review could increase their regulatory costs ten-fold. Oyster Creek would then have two options: pass their increased costs to the consumer, or close the plant.

*E. Mayor Scarpelli's proposal would likely result in the closing of Oyster Creek and many other nuclear plants, further increasing costs to consumers.*

If the Commission adopts Mayor Scarpelli's proposal, Oyster Creek will have two options: increase price or close the plant. The public, however, has only one choice: pay higher electricity rates. If Oyster Creek were to close, New Jersey residents could face a dramatic increase in their electric bills.

Although New Jersey is the 5th smallest state by landmass, it has the 9th largest population.<sup>30</sup> These facts make New Jersey the most densely-populated state in the union. Currently, over half of New Jersey's power requirement is provided by three nuclear power plants: Hope Creek, Salem Creek, and Oyster Creek. Oyster Creek accounts for 16% of all nuclear power generated in New Jersey.<sup>31</sup>

If Oyster Creek were forced into retirement, New Jersey would lose roughly nine percent of its generating capacity at once. Without any plans to replace that capacity, this loss would be matched by a proportionate increase in electricity rates.

Although this increase in electricity bills would be hardship enough for New Jersey residents, Mayor Scarpelli's proposal could have even broader effects. Salem Creek's operating license expires in 2016, only seven years after Oyster Creek.<sup>32</sup> Salem Creek is located on the Delaware River, less than 40 miles from Philadelphia, and even closer to the populations centers of northern Delaware. Two reactors operate there, which are responsible for 55% of New Jersey's nuclear power generation.<sup>33</sup> If Salem Creek were forced into retirement, New Jersey would lose nearly 30% of its total operating capacity.

This proposal would affect people outside of New Jersey. If licenses are not renewed in the next few years, dozens of nuclear plants nationwide face closure. Altogether, nuclear power accounts for about 20 percent of national capacity. Forcing these plants to close would result in the sudden loss of much of this capacity.

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<sup>30</sup> <http://www.50states.com/newjerse.htm>.

<sup>31</sup> Department of Energy, "State Nuclear Industry – New Jersey." March 18, 2005, available at [http://www.eia.doe.gov/cneaf/nuclear/page/at\\_a\\_glance/states/statesnj.html](http://www.eia.doe.gov/cneaf/nuclear/page/at_a_glance/states/statesnj.html).

<sup>32</sup> Department of Energy, "U.S. Nuclear Plants - Salem." March 18, 2005, available at [http://www.eia.doe.gov/cneaf/nuclear/page/at\\_a\\_glance/reactors/salem.html](http://www.eia.doe.gov/cneaf/nuclear/page/at_a_glance/reactors/salem.html).

<sup>33</sup> State Nuclear Industry – New Jersey, *supra*.

*F. According to recent polls, public opinion appears to favor Oyster Creek, and current Commission regulations.*

In his petition, Mayor Scarpelli cites an array of public opposition to Oyster Creek's renewal, including the statements of a number of municipalities and members of Congress. Despite the Mayor's assertions, however, public opinion tends to favor Oyster Creek's license renewal under the current process.

First, a number of municipalities and public interest groups have voiced their support for Oyster Creek, including, the New Jersey Business & Industry Association, the International Brotherhood of Electrical Workers, and the Borough of Seaside Heights. Although Mayor Scarpelli's proximity to Oyster Creek is the impetus of his concern, mayors living even closer to the plant actually support it. Mayor Gary Quinn, the mayor of Lacey Township (where Oyster Creek is located), has said that "[t]he Lacey Township Committee fully supports the renewal of the license and looks forward to continuing the mutually beneficial relationship that has been established between the community and the operators of Oyster Creek Generating Station."<sup>34</sup>

Support for Oyster Creek is found not only in testimonials, but also in opinion polls. In March, 2005, Bisconti Research of Washington, D.C., polled 900 New Jersey residents<sup>35</sup> about Oyster Creek and the renewal process. Of those polled 74 percent approved of Oyster Creek's license renewal, provided it met current Commission standards. Of people living closest to Oyster Creek (within 10 miles), 70 percent approved. Over two-thirds of people living closest to Oyster Creek consider the plant to be "safe," "clean," and "reliable."<sup>36</sup>

*G. Eliminating the renewal process would not be favored by members of the nuclear power industry, who already find licensing and renewal procedures too cumbersome.*

If the Commission decided to adopt Mayor Scarpelli's proposal, it would not garner any favor with the nuclear power industry. In 2004, the Commission hired the Brookhaven National Laboratory to survey members of the nuclear power industry about regulatory issues.<sup>37</sup> Of the 76 respondents that returned surveys, only 47 percent were satisfied with the timeliness of the Commission's response to licensing and renewal applications. Generally, respondents had a favorable opinion of the renewal process generally, with 42 percent claiming satisfaction with the process, and none dissatisfied. Satisfaction with the new construction process was much lower, however, with only nine percent satisfaction.<sup>38</sup>

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<sup>34</sup> Available at [www.oystercreeklr.com/Quotes.pdf](http://www.oystercreeklr.com/Quotes.pdf).

<sup>35</sup> Of the 900 polled, 300 live within ten miles of Oyster Creek, 300 live between 10 and 50 miles, and 300 live in the rest of New Jersey.

<sup>36</sup> The complete 2005 survey is available at <http://www.oystercreeklr.com/Oyster%20Creek%20Survey%20March%202005.pdf>.

<sup>37</sup> This complete survey is available at <http://www.nrc.gov/reactors/operating/oversight/detailed-results.pdf>.

<sup>38</sup> Twenty-four percent responded as either neutral or dissatisfied, while two-thirds of respondent had no opinion.

Mayor Scarpelli's proposal effectively eliminates the renewal process, replacing it with the same procedures as new construction. If the Commission eliminates the renewal process, it will effectively replace an effective process and replace it with an unfavorable one. Although the approval of the industry is not necessarily a high priority of the Commission, it does rely on the cooperation of plant owners and operators. Eliminating a program that has won so much industry approval would be unfortunate.

### **III. Conclusion**

The threat the Oyster Creek, and other similarly-situated plants, present is minimal. Mayor Scarpelli expresses a common misperception that nuclear power is a danger to be neutralized. On the contrary, I believe that nuclear power will continue to be a reliable, safe, and affordable source of energy, especially in this time of rising fossil fuel prices. While Mayor Scarpelli's interest in public safety is understandable, his concerns are misplaced. I believe that his proposal would do long-term harm to our energy supply, and would result in higher prices and even energy shortages.

Once again, I thank the Commission for the opportunity to make these comments. If you have any further questions, please contact me at the above address.

**From:** Carol Gallagher  
**To:** Evangeline Ngbea  
**Date:** Tue, Nov 29, 2005 10:22 AM  
**Subject:** Comment letter on PRM-54-03

Attached for docketing is a comment letter on the above noted PRM from Patrick S. Cannon that I received via the Rulemaking website on 11/28/05.

Carol

**Mail Envelope Properties (438C723A.218 : 3 : 886)**

**Subject:** Comment letter on PRM-54-03  
**Creation Date:** 11/29/05 10:22AM  
**From:** Carol Gallagher  
**Created By:** CAG@nrc.gov

**Recipients**

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