

Comments at Peach Bottom - July 31, 2002

I received the Draft Report for Comment of the Generic Environmental Impact Statement for License Renewal of Nuclear Plants regarding Peach Bottom Atomic Power Station, Units 2 and 3. This is not a reader friendly document and I had trouble locating points of interest.

There was no mention of my question regarding an evacuation plan for the Amish in the event of a nuclear accident. I found no mention of my request that past performance of the plant be taken into account, including control room operators sleeping on the job. There was no mention of my concern of the danger of spent radioactive fuel being stored on site.

There was no mention of my comments about the problems with the emergency warning sirens. In an NRC document dated August 15, 2001, it is noted, "...two former contract technicians deliberately falsified siren testing maintenance records and performed inadequate siren tests while professing that all activities on siren records were properly done; and (2) one of those technicians knowingly installed jumper wires to bypass failure detection circuitry on at least 10 siren boxes which would demonstrate the sirens were working properly, even if they were not."

It is my opinion that the NRC had already decided to renew the license of the Peach Bottom Power plant when they received the application. The only reason meetings are held is to meet a requirement. Sam Gejdenson, the former chairman of the House Interior Subcommittee on Oversight, said about the NRC, "On a number of occasions, the commission has acted as if it were the advocate for, and not the regulator of, the nuclear industry."

I continue to be concerned about an earthquake given the proximity of the Martic (not "Martick" as erroneously spelled in the draft) fault line. According to a Lancaster New Era article on July 1, 1994, corrosive cracks found inside a Peach Bottom reactor "...could cause a meltdown during an accident or earthquake, the Nuclear Regulatory Commission said today." "...cracks in the York County nuclear reactor are expected to grow and will have to be monitored, the NRC said." "...NRC officials also warn that the cracks could lead to a meltdown if they shift during an accident or natural disaster." I could find no mention of this in the draft report for comment.

I would still like to know how many accidental releases of radiation have occurred at Peach Bottom since it began operations. I would like to know the type of radiation and the amount of each release. The draft report does not address this in detail.

I would like to have data on cancer cases, birth defects and stillbirths in a ten mile radius of the plant and compare this information to the national average. The draft report does not address this in detail.

I would like to know the types of radioactive isotopes at the plant and half-life of these isotopes. Are Strontium 90 and Strontium 89 the only radioactive isotopes at the plant? The draft report notes the "socioeconomic" problems

associated with the shutdown and decommissioning of Peach Bottom. However if a power plant were to operate around the same area using renewable resources, such a plant would need a large number of employees who would probably be just as involved in the community as the current Peach Bottom employees.

I do not agree with the conclusion of the draft report which notes the impact of renewing the license of Peach Bottom would have a small impact on land use, ecology, water use and quality, air quality and waste. I do not agree the use of renewable resources at the same site would have a greater impact on the environment than the current plant.

Since the Peach Bottom Plant is located on the edge of the great east coast megalopolis, an accident could have a devastating effect on millions of people. We need to shut down and decommission the Peach Bottom Atomic Power Station before a horrible accident occurs.

Ernest Eric Gyll



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**EXELON STATEMENT
NRC MEETINGS
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
July 31, 2002**

Over the past year, Exelon Nuclear has submitted required information to the Nuclear Regulatory Commission (NRC) to support relicensing of Units 2 and 3 at Peach Bottom Atomic Power Station (PB). The documents substantiate why we feel the plant can continue to operate safely for 20 additional years after the current licenses expire in 2013 and 2014. In these submissions, we address safety, equipment operability, security and environmental issues, among others. Each requirement ensures long-term safe operation of the plant.

We began this effort in March 1999, and submitted our relicensing proposal to NRC in July 2001. The License Renewal Application contains two parts, one dealing with safe operation of the plant and the second dealing with the impact on the environment of extending the operation of the plant for an additional 20 years.

On the safety front, we must demonstrate that we can effectively manage the aging of plant systems, structures and components. Aging management includes inspections of equipment, and also maintaining proper chemistry control of cooling water systems to prevent aging of the systems. This report is currently under review by the NRC, and they are seeking additional information from Exelon Nuclear in some areas. The draft of the NRC Safety Evaluation Report will be completed in September.

On the environmental front, Exelon submitted an environmental report addressing all the potential impacts identified by the NRC. The NRC has previously reviewed 69 of these potential impacts and generically concluded that the impact of continued operation will be small for these 69 issues. Exelon determined that the NRC's generic conclusions are applicable to PB, and the NRC has reached the same conclusion.

Exelon also analyzed the 23 potential impacts that must be reviewed on a plant specific basis. Exelon has concluded in the Environmental

Report submitted to the NRC that the impact of these issues will be small during the period of extended operation. These include water discharge issues, use of groundwater, impacts on fish and wildlife, heat shock in the cooling pond, water use conflicts, socioeconomic impacts on public services, land use, housing and roads and protection of threatened and endangered species.

NRC reviewed Exelon's Environmental Report, and did an independent check. They then reached their conclusions and published the draft SEIS, which is the subject of the July 31 meeting. They concluded that any impacts from license renewal at PB would be small.

At the July 31 meetings, the NRC will take comments. They will also take comments in response to a Federal Register notice. They address these comments, and then issue the final SEIS.

Exelon Nuclear works hard to ensure all environmental requirements are met and exceeded in plant operations. We quickly address problems if they arise. We also plan ahead to meet changing standards to ensure protection of public health and the environment surrounding our facilities. We're confident that Exelon will meet the long-term changing demands on the nuclear industry to do what is best for the environment, while ensuring safe and productive operations, and we will stay prepared to an open dialogue with the NRC to make any needed further modifications as they arise.

Public Hearing Testimony – July 31, 2002

To: Nuclear Regulatory Commission

Re: Peach Bottom Operating License Renewal - 2014 to 2034

From: The Alliance For A Clean Environment

P.O. Box 3063

Stowe, PA 19464

Presented by Donna Cuthbert, ACE Vice President

The Alliance For A Clean Environment (ACE) is a group founded in the Greater Pottstown Area, which is focused on harmful environmental health impacts in our region. Based on Peach Bottom's enormous radioactive threat to human health and safety, as well as long lasting destruction of our environment, we URGE the Nuclear Regulatory Commission to DENY the License Renewal for Peach Bottom.

Closing Peach Bottom, instead of renewing its license, is clearly in the best interest of health and safety of all residents in this region and the best economic interests of the public in general. The President keeps reminding us that our war on terrorism is not likely to end in the near future, IF ever.

- 1. Why would the NRC renew the license for such a major target for terrorists? The potential to destroy so much, and harm or kill so many people must be ended, not renewed.**
 - a. Even people in the Greater Pottstown area could have their health adversely impacted by a terrorist attack, or accidental disaster at Peach Bottom. Pottstown is only about 50 to 55 miles northeast of Peach Bottom.**
 - b. If prevailing winds blow at about 10 miles per hour, harmful radiation would arrive in Pottstown in as little as 5 hours after an accident.**

- 2. Why would the NRC renew the license for any nuclear plant, when it costs the public so much money to protect these facilities from terrorism?**
 - a. How long can we afford to absorb the cost?**

- b. What kind of debt would we be planning to leave for our children and their children just for the constant surveillance of nuclear plants?**
- 3. Why would the NRC renew the license for any nuclear plant, when there is NO SAFE WAY TO DISPOSE of the radioactive wastes these facilities produce?**
 - a. Spent fuel rods present ENORMOUS RISKS to public health and safety, TO STORE "OR" TRANSPORT. When spent fuel rods can't be disposed safely, why would the NRC allow the process to continue which produces more of them?**
 - b. Transporting spent fuel rods from nuclear plants, such as Peach Bottom in PA, across the nation to Yucca Mountain, opens the door for all kinds of natural and terrorist catastrophes along the way.**
 - c. Leaving the nuclear waste on site presents additional risks to the surrounding populations. Spent fuel rods are potentially more harmful than the radiation escaping from nuclear power plants on a regular basis.**
 - d. We face far too much risk from nuclear waste already? Why would the NRC extend the life of Peach Bottom or any other nuclear power plant?**
- 4. Common sense tells us the older nuclear plants get, the more chance there will be for accidental disasters. Why would the NRC permit this increased risk?**
- 5. Why would the NRC allow nuclear plants to have 20 years of extended life knowing the following:**
 - a. In 1990, the National Academy of Science report, called The Biological Effects of Ionizing Radiation (BIER), stated that even quick decaying radiation is not necessarily safe. There is no safe level of radiation.**

- b. Nuclear Power plants contain a toxic soup of extremely carcinogenic radiation.
- c. There is no way to protect people from the on-going radiation releases at a nuclear facility.
- d. There is no way to protect people from exposure as a result of a nuclear accident.
- e. Some kinds of radiation from nuclear power plants remain in the human body forever. Example - 1 atom of Strontium 90 sits in the body for life.

In the past 60 years, nuclear technology has created an array of problems that now rank among the most difficult, dangerous, and long-lived that the world has ever faced. These problems keep growing larger. Despite all the problems the nuclear industry has already created, it is redoubling its efforts to expand. How can the NRC permit this? It is time to close nuclear plants when permits end, not renew their threat to human health for another 20 years.

Peach Bottom Record

Up to 1993, Peach Bottom 2 and 3 released 2.21 curies of long-lived radioactivity into the air (19th highest of 72 U.S. plants). The total of liquid mixed fission products ranked 14th according to the NRC, in Radioactive Materials Released from Nuclear Power plants annual reports.

Peach Bottom has the potential to be an enormous health risk to over a million residents in the surrounding region. In fact, Pottstown, already hard-hit by high rates of diseases like cancer, is located about 50-55 miles northeast (downwind from Peach Bottom).

- Pottstown residents could ingest airborne particulates routinely escaping from Peach Bottom.
- The Pottstown area gets much of its milk from dairies located in Lancaster and York Counties, near Peach Bottom. Residents, both near Peach Bottom and elsewhere like Pottstown, ingest Peach Bottom fallout in milk.

It is irresponsible and illogical to extend the life of Peach Bottom from 2014 to 2034. ACE urges you to protect the enormous population which can be adversely affected by what happens at Peach Bottom, including all those in the Greater Pottstown Area, already facing a health crisis.

PLEASE VALUE HUMAN HEALTH AND THE ENVIRONMENT.

PLEASE DENY EXELON'S APPLICATION TO EXTEND THE PEACH BOTTOM LICENSES FROM 2014 TO 2034!

Pressurized water reactors have several dozen penetrations through the curved dome called the reactor vessel head. These penetrations allow the control rods inside the reactor core to be connected to the motors outside the reactor vessel that regulate their movement. The penetrations are sleeved with stainless steel, typically a material called Alloy-600. The reactor vessel head itself is made of carbon steel.

Because the penetrations pass vertically through a curved surface, stresses (forces) develop when the metal expands as it heats up. Because the penetrations intersect the curved dome at sharp angles instead of perpendicularly, these stresses hit some parts harder than other parts. Over time, the hard-hit parts can develop cracks. Once cracks develop, impurities in the reactor water such as boron tend to collect in the cracks and can accelerate corrosion.

The PWR nozzle cracking discovered last year at Oconee, then Arkansas Nuclear One then Three Mile Island then Crystal River then Davis-Besse surprised the NRC. The nozzles were being routinely inspected. But those inspections focused exclusively on an area called the J-groove weld area. Basically, this area is located on the inside of the domed reactor vessel head where the nozzle begins passing through it. The thought was that this was the most vulnerable location for cracks - if they developed anywhere, they'd develop here first. But that assumption turned out to be wrong. The nozzles were cracking on the outside first and then cutting across to the inside. Because people were looking in the wrong place, they did not find the cracks until reactor water started leaking out through the nozzle cracks.

BWRs like Peach Bottom have only a few reactor vessel head penetrations. Most of the BWR penetrations are through the domed lower head.

Earlier this year, the Quad Cities BWR in Illinois reported a problem to the NRC. One of the jet pumps located inside the reactor vessel was found to be broken. The jet pumps are located in the space between the core shroud (the metal cylinder around the reactor core) and the reactor pressure vessel. The jet pumps are cone-shaped tubes about 12 feet long. They are anchored in place with several metal brackets.

At Quad Cities, the upper metal bracket broke. The brackets had been frequently inspected. But as in the PWR nozzle case, these inspections were not of the entire bracket but only of the portion of the bracket thought to be most vulnerable to cracking. Once again, that assumption proved wrong and the bracket cracked in an uninspected location.

This trend concerns us. License renewal is based on having adequate aging management programs. But if near-misses continue to be caused by people looking in the wrong places, clearly aging management programs are not meeting the necessary safety expectations.

**Statement to the Nuclear Regulatory Commission
In the matter of Exelon Corporation's Application
To extend Operating License for another 20 years.**

July 31, 2002

Gentlemen:

Peach Bottom , at this time, is one of seven nuclear power plants with active relicensing applications, with more in preparation. The others are Edwin E Hatch near Savannah GA, Turkey Point near Miami Fl, Surry near Williamsburg VA, North Anne near Richmond VA, Catawba near Charlotte NC, and McGuire near Charlotte, NC.

Four plants have been licensed so far, and there is no indication that any statements in opposition to this dangerous practice has had any affect on the decision to relicense. As a matter of fact, not having any new nuclear power plants to work with the NRC's willingness to keep their "jobs" going, with the same disregard for safety concerns by opponents is quite clear.

Most licenses do not expire for another 15 to 20 years, Why now?

To amortize plant debt further into the future, therefore padding corporate revenues today. The NRC knows well that some of these old, worn, dilapidated plants, originally licensed for only 30 years for a good reason will never see the end of this extension. We know it, the NRC knows it, its done with "smoke and mirrors" so easily detectable if one follows the Money.

To make my point.

Cracks and leak and embrittlement of Material in aging plants is well known by the NRC. Nozzle cracking in pressurized water reactors started in the late 1980's. Only two months after Oconee was given the 20 year extension the nozzle cracks were discovered.. And again, after extension, at Entergy's Nuclear-One.

Two other plants, currently going through licensing process were the cracks were found are North Anna and Surry. *See enclosure.*

On March 7, 2002 FirstEnergy's Davis Besse nuclear power plant in Ohio experienced a problem which should alert the NRC to immediately halt all re-licensing. Boric acid corroded a 6 inch hole in the reactor vessel, leaving only a 3/8 inch metal cladding as protection against a reactor breach. The consequences could have been devastating.

I am certain you will not permit me to list here all the "close shaves" mishaps and the sloppiness with which this industry operates.

Stupid mistakes are a regularity

At the General Electric's Trojan Station a control room operator was listening to a baseball game while radioactive water was overflowing from a tank and flooding the adjacent building.

July 26, at Susquehanna a dry fuel storage cask had accidentally been filled with argon/helium gas in place of the correct 100% helium gas. Nobody knows what the effects are in the storage system.

Finally I would like to direct the NRC's attention to the International situation concerning nuclear power in general.

The French nuclear power program and Framatome have been held up as a marvel. But the chickens are coming home to roost. With an original price tag of \$4.3 BILLION the Superphenix ran for a total of 30 months over the dozen years since it went into operation. And the world's largest fast-breeder reactor is now closed for good.

By the way the breeder reactor in Japan fared no better. After a serious accident the investigating general manager committed suicide .

We are finally beginning to look into the Nuclear Industry's claim as to the actual contribution to the nations energy pool. The production of nuclear power is extremely energy intensive. The energy consumed by future needs such as shipping 77.000 ton of nuclear waste all over the country with much more being produced does not even figure into the calculations yet. After a trillion-dollar taxpayer investment it delivers little more energy than wood. Globally it produces less energy than renewables.

In the 1990's global nuclear capacity rose by 1% a year vs. 17% for solar cells (24% last year) and 24% for wind power. Last year California added more decentralized megawatts than its 2 giant nuclear plants

Does anybody really want these plants? Over the last few years Utilities have been trying to sell them. Main Yankee even created a web page complete with color photographs to promote the sale. There were no takers, the plant was "retired"

When will this country find its sanity. What are we doing to this planet. Plutonium is radioactive for 250.000 years some elements like iodine and Technetium wont decay for millions years. Its time to stop

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The Environmental Impact Statement Does Not Address Security Concerns Regarding the Structural Vulnerabilities of the Peach Bottom Elevated Irradiated Fuel Storage Ponds

Every refueling cycle, Peach Bottom's operators off load one third of the highly radioactive and extremely hot nuclear fuel from the reactor core and submerge it into 40-foot of water in elevated storage ponds for thermal cooling and radiation shielding for a minimal period of five-years. The Peach Bottom elevated storage ponds are located approximately between the 6th and 10th story of each reactor building. Referred to as the "spent" fuel pool in industry jargon, each storage pond is currently filled with hundreds of tons of high-level radioactive waste. As long as the reactors are operating they are constantly cycling thermally hot radioactive fuel rods into the attic of the reactor.

It is NIRS' stated concern that these elevated storage ponds are extremely vulnerable to a variety of acts of radiological terrorism. The Environmental Impact Statement does not adequately address the increased risk by significantly extending the Peach Bottom operating license and the adverse environmental impact associated with a successful terrorist attack on this vulnerable target.

As reported by NRC's own Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants published in October 2000, before the attack on the World Trade Center and the Pentagon, "Mark I and Mark II secondary containments generally do not appear to have any significant structures that might reduce the likelihood of aircraft penetration [of the spent fuel pool], although a crash into 1 of 4 sides of the BWR secondary containment may be less likely to penetrate because other structures are in the way of the aircraft." In other words, the Peach Bottom's 40-foot deep "spent" fuel pool shares only one of its walls in common with the exterior of the reactor building. NRC goes on to state "Based on studies in NUREG/CR-5042, Evaluation of External Hazards to Nuclear Power Plants in the United States, "it is estimated that 1 of 2 aircrafts are large enough to penetrate a 5-foot-thick reinforced concrete wall." The NRC report goes on to state, "It is further estimated that 1 of 2 crashes damage the spent fuel pool enough to uncover the stored fuel (for example, 50 percent of the time the location of the damage is above the height of the stored fuel.)"

As stated earlier, the top of the reactor building surrounding the opened surface of the "spent" fuel pool is basically sheet metal siding with a specified blow-out rating. What is the "blow in" rating is for this section of the Peach Bottom reactors? Where has NRC structurally analyzed this section of the reactor building and evaluated the degree of risk associated with extending the time at which we are vulnerable to the consequences of off site radiation releases from an act of radiological sabotage against Peach Bottom?

NIRS contends that the identified vulnerability is an unacceptable risk with unacceptable consequences in the clear and present danger of a Post-September 11th world. A re-licensing proceeding that turns a blind eye on this glaring vulnerability is a dangerous sham on the public health and safety and the environment.

NUCLEAR INFORMATION AND RESOURCES

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Comments by Paul Gunter

Peach Bottom EIS on License Extension, Delta, Pennsylvania, July 31, 2002

The Environmental Impact Statement Lacks an Adequate Evaluation of the Peach Bottom Primary Containment System

In 1972, the U.S. Atomic Energy Commission's (AEC) top safety advisory, Stephen Hanauer, in a confidential memo on the General Electric Mark I Containment (Pressure Suppression System) as used at Peach Bottom, concluded that the safety hazards inherent in the GE containment design were "preponderant," in excessive prevalence and recommended that the AEC not permit any more designs to be built.

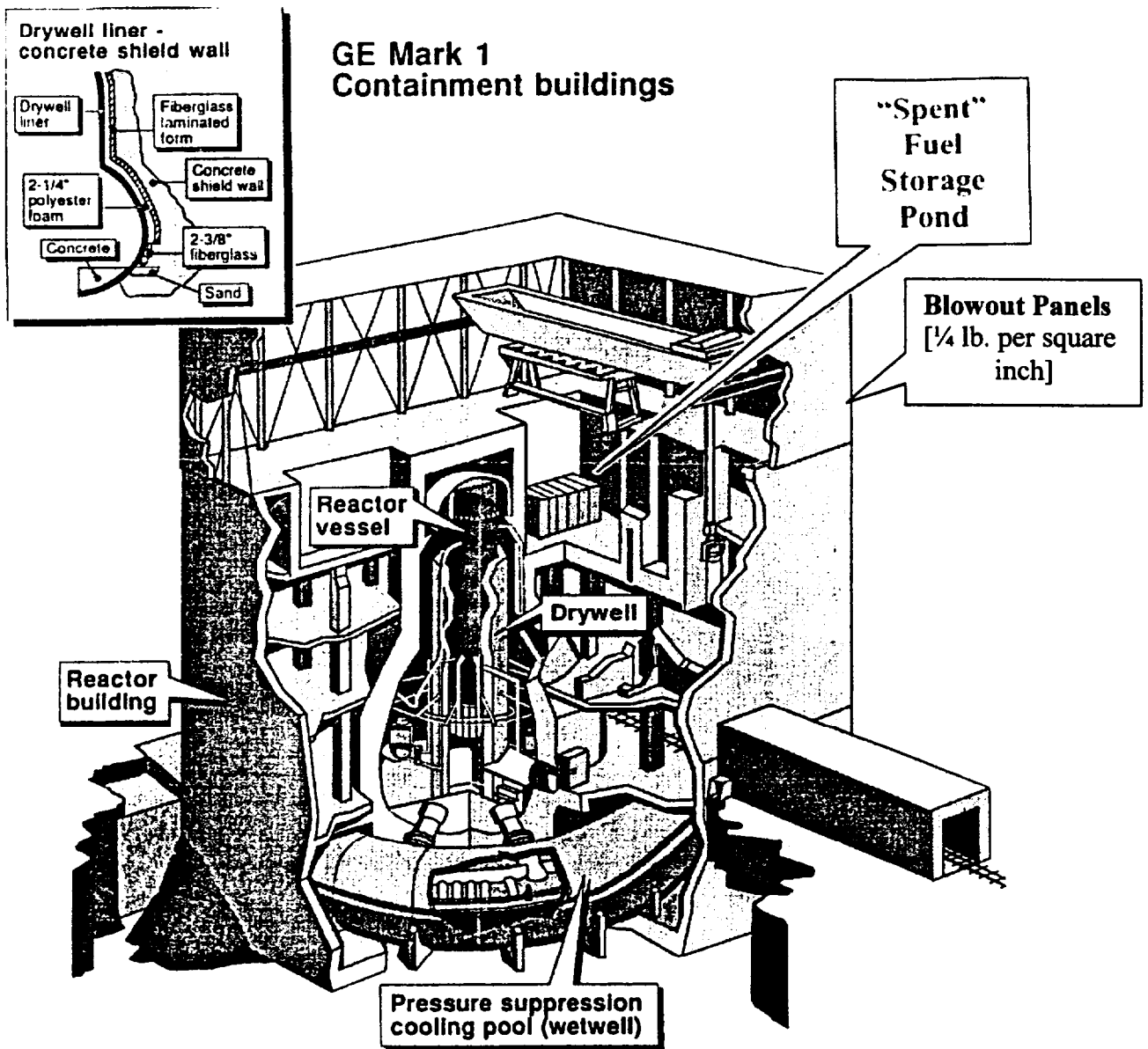
Joseph Hendrie, later to become Chairman of the AEC's successor agency, the Nuclear Regulatory Commission (NRC), wrote in an internal response that banning the Mark I pressure suppression containments "could well be the end of nuclear power" and "would generally create more turmoil than I can stand thinking about." The AEC then issued operating licenses for Peach Bottom Unit 2 in 1973 and Unit 3 in 1974.

By 1985, the Mark I Boiling Water Reactor (BWR) was again singled out by the NRC for special attention because of strong indications of a high probability that its containment would not survive several severe accident scenarios. NRC Director of Nuclear Reactor Regulation, Harold Denton, told an industry conference that the Mark I has a failure probability as high as 90% for some accident sequences such as an "over-pressure" accident. One NRC staffer described the containment's effectiveness in an "over-temperature" accident (core melt) as "like a hot knife through butter."

By 1989, the NRC and Boiling Water Reactor owners, including Philadelphia Electric Company, began work on the Mark I "Containment Improvement Program." With NRC approval Peach Bottom's operators installed a 8" diameter pipe or "hardened vent," that can be opened from the control room to vent the reactor's primary containment through the 300-foot tall stack, by-passing the station's radiation filtration system. Operators now have the option to deliberately vent Peach Bottom's containment to the environment through "controlled releases" of the tremendous internal pressure of a nuclear accident and its radioactive materials, such as the noble gases. Vent containment to save it.

A botched design, a proposed ban by its own safety officials, its primary containment system later verified to have irreversible design flaws, a principle safety boundary jury-rigged and Peach Bottom was given its first new lease on life albeit with a significant reduction in its often touted "defense-in-depth" hardware and philosophy.

Today, these badly designed and deteriorating reactors are being re-licensed for an additional twenty-year extension only at increased risk of adverse environmental impact to our safety and health, the economy, the water and land resources.



The GE Mark I Pressure Suppression Containment System is primarily comprised of a "Drywell" where in the event of an accident highly radioactive steam issuing from the reactor's Emergency Core Cooling System would be routed through large diameter pipes underwater into the pressure suppression cooling pond or the "Wet-well." First thought to be of sufficient volume to quench the steam from sustained accident mitigation, subsequent safety analysis found the wet-well too small and would more likely rupture with an ensuing core melt accident. The reactor building is even less robust as a "secondary containment." The upper section of the Mark I reactor building is not a high pressure-rated structure as evidenced by "blow-out" panels designed to pop-out at one-quarter pound per square inch (psi). Just behind these blow-out panels is the reactor refueling deck including the open surface of the 40-foot deep nuclear waste storage pond containing the reactor's high-level nuclear waste.

License Renewal Is the Best Option for Peach Bottom

**Alan P. Nelson
Senior Project Manager
Nuclear Energy Institute**

**July 31, 2002
Delta, Pennsylvania**

Good evening. My name is Alan Nelson I am a Senior Project Manager at the Nuclear Energy Institute. I am pleased to have the opportunity to join the discussion today among interested citizens of Pennsylvania and Maryland, state and local officials, NRC staff, and other parties on license renewal for Peach Bottom.

The Nuclear Energy Institute coordinates energy policy for U.S. energy companies that own a nuclear power plant. The Institute also represents industry suppliers, fuel cycle companies, universities and colleges, and other organizations involved in the beneficial uses of nuclear technologies—such as medicine, agriculture and food safety and space exploration.

Nuclear energy provides electricity for one of every five homes and business in America. Here in Pennsylvania, electricity customers get their electric power from nine nuclear reactors, including Peach Bottom, as well as Limerick, TMI, Susquehanna and Beaver Valley nuclear plants.

The purpose of today's meeting is to discuss environmental issues related to the license renewal application for Peach Bottom that Exelon submitted to the NRC on July 2, 2001.

Exelon is the tenth utility to seek nuclear plant license renewal. In March 2000, the NRC for the first time approved a 20-year license extension for two reactors at the Calvert Cliffs Nuclear Power Plant on the shores of the Chesapeake Bay in Maryland. That approval was a landmark for the industry and evidence of the tremendous long-term energy and environmental benefits of nuclear power. To date, ten reactors have already received 20-year license extensions from the NRC, and the agency is reviewing requests from 14 others, including Peach Bottom.

More than one half of all (103) U.S. reactors are expected to submit applications over the next several years. Many more are expected to join them.

Renewing nuclear plant licenses for an additional 20 years is economical compared to the development of alternative energy sources. As both the Nuclear Regulatory Commission and stakeholders become more familiar with the process, we expect the license renewal process to become even more efficient.

Moreover, there is growing recognition among the public and policymakers both in the United States and internationally that we must maintain the clean air and other environmental benefits of nuclear energy.

The White House recognizes very clearly air benefits of nuclear energy in its comprehensive energy strategy. Vice President Dick Cheney has said,—“If you’re really serious about reducing greenhouse gases, one of the solutions to the problem is to go back and take another look at nuclear power.”

There are tremendous air quality advantages from nuclear energy both for the health of Pennsylvania’s citizens and from an economic view.

License renewal for nuclear power plants is important to our nation’s future energy security and environmental needs. Today’s public meeting is part of an extensive process that helps ensure that no important environmental issues are overlooked as the NRC continues to evaluate the Peach Bottom license renewal application. Throughout its review, the NRC will continue to keep interested citizens and stakeholders apprised of its progress.

One of the requirements of the environmental report is for Exelon to compare the environmental impacts of alternative energy sources as part of evaluating possible alternatives to relicensing Peach Bottom.

The results of that evaluation are worth noting. For example, photovoltaic cells generating 2,200 MW of power ... the same amount of electricity produced at Peach Bottom ... would consume about 77,000 acres of land.

The draft GEIS also evaluates other alternatives for providing electricity to the people of Pennsylvania, including power plants that burn coal, natural gas, oil, or wind power as well as hydropower, geothermal energy and biomass-derived fuels. The GEIS even considers a no-action alternative, which means, "do nothing." The report concludes that these alternative actions, including the no-action alternative, are not feasible or may have environmental impacts of moderate to high significance. In contrast, the report concludes that the environmental impacts associated with renewing the Peach Bottom license are small.

With the extension of the license it means 20 more years of environmental and economic benefits and continued reliable electricity for consumers and businesses in Southeastern Pennsylvania.

What exactly does license renewal mean?

I happen to think it's a necessary option. Let me give you three key reasons why:

- **First**, license renewal will maintain economic electric generation that does not produce greenhouse gases or other air pollutants, such as sulfur dioxide, nitrogen oxide and particulates.
- **Second**, license renewal will preserve good jobs for this area. And communities like Delta and Peach Bottom Township, where these plants are located, will benefit from the plant's continued operation.
- **Third**, renewal of Peach Bottom's license is far more economical than building a new power plant.

Many people don't realize that nuclear energy is the largest source of emission-free electricity generation in America. It represents nearly 70 percent of our nation's emission-free generation.

Hydroelectric power is second at 29 percent. Photovoltaic cells and wind power each represent less than 1 percent of emission-free generation.

It's obvious from these figures that nuclear energy provides vital clean air benefits to Southeastern Pennsylvania and the United States, considering that each state must control emissions from electric generating sources through the Clean Air Act. In your community, Peach Bottom also provides stable jobs, and safe, reliable and affordable electricity.

I want to close by saying that the draft GEIS is factual and complete, and should contribute to a fair and objective review of the environmental impacts of license renewal at Peach Bottom. And I'd like to commend Exelon and the nuclear professionals at Peach Bottom for their continued excellent record of safety performance and commitment to protecting public health and safety and the environment. Together, these are key factors in the NRC's conclusion in the draft GEIS that supports a positive decision on renewing the license for an additional 20 years.

Thank you.

MORE THAN 1,200 COULD DIE UNDER NUCLEAR RELICENSING PROGRAM

Public Hearing Testimony – July 31, 2002

To: Nuclear Regulatory Commission

Re: Peach Bottom Operating License Renewal - 2014 to 2034

Submitted by: Sandy C. Smith, member of Pennsylvania Environmental Network

Thank you for letting me speak today although I am angered that this old nuclear plant is even up for License Renewal. The NRC's own standards stated Peach Bottom was supposed to close ²⁰ years ago. What has changed? Has anyone from the NRC personally inspected EVERY peice of rusty metel, worn parts, fractured cement? There is no way Peach Bottom can ~~not~~ operate safely or economically and should be shut down according to the Nuclear Regulatory Commission's [NRC] own figures! When deaths, health and environmental desolation are added up, Beach Bottom is NOT a cheap source of energy--only a cheap way for the owners to make billions. Is Peach Bottom required to put up a bond and for how much to assure York Co. that if they go into bankruptcy we will not be left paying for clean up? How much, if any, insurance is Peach Bottom's old plant required to carry that would cover an accident? What will happen if/when the plant becomes so unsafe that our land values go down and we can no longer life here?

According to the Federal Register notice, each relicensing is expected to be responsible for the release of 14,800 person-rem of radiation during its 20-year life extension. The figure includes releases from the nuclear fuel chain that supports reactor operation, as well as from the reactors themselves. The NRC calculates that this level of radiation release spread over the population will cause **12 cancer deaths per unit**. Accidents and non-routine radiation releases are not included in the NRC's figure, and could cause still **higher casualties**. The NRC only calculated likely cancer deaths, so deaths from other radiation-induced diseases and non-fatal cancers are not included in its calculations. **There are not twelve people in York County willing to give up their life for Beach Bottom!** TMI is close by... The NRC has said it expects as many as 100 reactors to apply for license extensions; this would result in some 1,200 cancer deaths among the U.S. population.

Pennsylvania has the 2nd highest number of nuclear reactors and the 2nd highest amount of nuclear waste. The state already possesses 922 sites identified by the EPA where radioactive contamination may exist. Thus, the reason for PA being told by Washington they **MUST** have a **nuclear dumping site!** **PA does NOT want a Nuclear Dump!**

Nuclear power is not an 'emissions-free' technology. The entire nuclear fuel chain: the uranium, primarily mines on the lands remaining to indigenous people; uranium conversion; enrichment; fuel fabrication--each step exposes workers and communities to radioactivity, and each step generates radioactive wastes. Radionuclides defy the concept of "disposal"; they don't go away, we just move them around. There is no such thing as a nuclear dump that won't eventually leak. The NRC acknowledges that the allowable limit (100 millirems a year) for radiation exposure via air from any reactor to the general public will cause a fatal cancer in 1 out of 286 people exposed. This is very high when compared to the standard of 1 in 1 million considered an "acceptable" level of human sacrifice for other industrial activities.

The 1986 catastrophe at Chernobl has seriously affected the health and welfare of the Belarusan people. The average life expectancy of women has declined by 5 years. Only 10% of the children are completely healthy. Cancer among adults and children have increased in Ukraine and Moldova as well. Two-thirds of Ukraine is contaminated and 70% of the food. The watershed of the Kiev basin has been so contaminated that it would require \$200 billion just to purify the water--40 million people have to drink it. **TMI was 30 min. from melt-down.** **How much disaster insurance does Peach Bottom carry for York Co.? We have a right to know.**

NRC has offered to pay the costs for two days supply of potassium iodide pills to people living within 10 miles of a nuclear power plant. Thyroid cancer is a major result of reactor accidents, the exposure can continue for days even after one leaves the area. If a nuclear accident occured during a natural disaster--earthquak, hurricane, blizzard, ice storm--or attact, evacuation would be difficult and time consuming and people would need at le^{ast} 10 days to a month's supply. EPA Manual [Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-400-R-92-001(May 1992)] quotes the FDA as stating that, "potassium iodide will have substantial benefit even if it is taken 3 or 4 hours after acute exposure." The NRC would also have to stockpile iodine pills in schools, day care centers, places of work, etc. Soaring rates of thyroid cancer are still appearing in children from

the former Soviet Union who were exposed to the Chernobyl nuclear accident and who received too little potassium iodide, and too late. There is no way even this seemingly simple protection can be carried out. Why do our tax dollars have to pay for Peach Bottom, a private company's hazardous operation?

In the past three years, old or worn-out equipment has caused dozens of incidents requiring plants to shut down. On May and August 2000, Peach Bottom Unit 3 was forced into emergency shutdown when an instrument valve failed and caused a leak of contaminated reactor coolant outside of primary containment. Much of the discussion since the September 11th attacks has focused on the resistance of reactor containment structures to aircraft strikes. Peach Bottom will not hold up because it was not built to operate this long or withstand an attack. The Nuclear Regulatory Commission (NRC) needs to analyze this issue so that its answer is known rather than debated. More importantly, the NRC must address the vulnerability of spent fuel storage at all US nuclear power plants now. Spent fuel pools contain more highly radioactive fuel than the reactor cores. Spent fuel pools at all US nuclear plants are located outside the reactor containment. Highly radioactive fuel assemblies are stored after their removal from the reactor core. Water storage is required because spent fuel assemblies continue to emit considerable amounts of both heat and radiation for many years. Without cooling, the fuel pool water will heat up and boil. If the water boils or drains away, the spent fuel assemblies will overheat and either melt or catch on fire. NRC studies have estimated that many thousands of people living within 50 miles could die from the radiation released when spent fuel assemblies melt or catch on fire. This can happen without an attack. An aircraft or missile would not need to completely level the fuel building to cause harm. It would merely need to crack the concrete wall or floor and drain the water out. The spent fuel pool is not designed to withstand aircraft impacts and explosive forces.

We must assess the Nuclear Age itself in the wake of Chernobyl. There are more than 450 reactors in operation on the planet today. Each generates radioactive wastes that will be a threat to human health for hundreds of thousands of years. Each routinely releases radioactivity into the air and water. Poland was the only country that protected their children with iodine pills. We have seen how far radiation can spread which depends on the wind. We have also witnessed smoke from Canadian forest fires; radiation travels the same paths. **If nukes are so safe, why does the phonebook have evacuation routes, why is the industry trying to figure out where to dump their deadly waste, & why is \$46,000 of York Co. taxes budgeted yearly for Radiation Emergency Response? If the NRC does not close down Peach Bottom, we will not need to worry about terrorists because we have our government representing the corporate world of nuclear energy plants already terrorizing us!**

Thank you,



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Radioactivity in Baby Teeth

NEAR NUCLEAR PLANTS

STRONTIUM-90 CONCENTRATIONS* in Baby Teeth, Measured at Birth

- 3.00 or over ●
- 1.80 to 2.99 ●
- 0.60 to 1.79 ●
- under 0.60 ●

* picocuries Sr-90/gram calcium
SOURCE: RADIATION AND PUBLIC HEALTH PROJECT

☢ NUCLEAR PLANTS

- 1 Limerick (2 reactors)
- 2 Three Mile Island (2 reactors)
- 3 Peach Bottom (3 reactors)
- 4 Susquehanna (2 reactors)
- 5 Salem/Hope Creek (3 reactors)

