May 7, 2009

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
Before the Atomic Safety and Licensing Board

In the Matter of: ) Docket No. 72-7
The Detroit Edison Company ) EA-09-072
(Fermi Nuclear Power Plant, ) NRC 2009-0169
Unit 2 ISFSI, Order Modifying )
License) )

* * * * * *


INTRODUCTION

Pursuant to 10 C.F.R. § 2.309, 10 C.F.R. § 2.202 and a notice published by the Nuclear Regulatory Commission (“NRC” or “Commission”) at 73 Fed. Reg. 17890 (April 17, 2009), Beyond Nuclear, Keith Gunter, Michael J. Keegan, Marilyn R. Timmer, Leonard Mandeville, Frank Mantei, Marcee Meyers, Mark Farris and Shirley Steinman hereby petition and move for leave to intervene and request a hearing on the Order Modifying the operating license for Detroit Edison Company’s Fermi, Unit No. 2 for ISFSI security conditions. This petition sets forth with particularity the contentions sought to be raised. As demonstrated below, Beyond Nuclear, through its members, Keith Gunter, Michael J. Keegan, Marilyn R. Timmer, Leonard Mandeville, Frank Mantei, Marcee Meyers, Mark Farris and Shirley Steinman brings this petition. All the individually-named petitioners seek to have Beyond
Nuclear represent them, or alternatively if such is not possible, they bring this Petition in their individual capacities as persons with proper standing.

**Description of the Proceeding**

This proceeding concerns an order issued by the NRC imposing certain security requirements upon DTE’s planned deployment of dry storage casks for the holding of spent nuclear fuel at Fermi 2. A good faith review of the Federal Register forward from July 1, 2006 reveals no consideration of any alternative means of spent fuel storage other than Holtec casks. The April 17, 2009 Federal Register notice extended the opportunity for persons with proper standing to file contentions and request a hearing, which is the intention of Petitioners through the instant filing.

**Description of Petitioners**

Beyond Nuclear is a Maryland-based public education and advocacy group that aims to educate and activate the public on issues pertaining to the hazards of nuclear power, its connection to nuclear weapons and the need to abandon both. Beyond Nuclear advocates for an energy future for the State of Michigan and the United States that is sustainable, benign and democratic. Beyond Nuclear has approximately 8000 members nationally, several of whom live within 50 miles of the Fermi nuclear power plant site. Beyond Nuclear is providing the declarations of several of its members, Keith Gunter, Shirley Steinman, Mark Farris, Michael Keegan, Frank Mantei, Marilyn Timmer Leonard Mandeville and Marcee Meyers, all of whom live in proximity to the Fermi Unit 2, which is the site of the proposed Holtec cask installation. BN seeks to intervene to protect the interests of each
individual petitioning intervenor.

These persons are the individually-named Petitioners:

Keith Gunter
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Livonia, MI

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Monroe, MI 48161

Marilyn R. Timmer
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Leonard Mandeville
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Frank Mantei
571 St. Mary’s Ave.
Monroe, MI 48161

Marcee Meyers
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Monroe, MI 48161

Shirley Steinman
3011 Vivian Rd.
Monroe, MI 48161

Mark Farris
419 East 2nd St.
Monroe, MI 48161

The aforementioned individuals live within the proximity of Fermi 2. Petitioners Keegan, Steinman, Mandeville, Mantei, Timmer, Farris, Meyers and Gunter have designated Beyond Nuclear to represent them as intervenors.

Standing

Pursuant to 10 CFR § 2.309, a request for hearing or petition for leave to intervene must address 1) the nature of the petitioner’s right under the Atomic Energy Act to be made a party to the proceeding, 2) the nature and extent of the petitioner’s property, financial,
or other interest in the proceeding, and 3) the possible effect of any order that may be entered in the proceeding on the petitioner’s interest. In determining whether a petitioner has sufficient interest to intervene in a proceeding, the Commission has traditionally applied judicial concepts of standing. See Metropolitan Edison Co. (Three Mile Island Nuclear station, Unit 1), CLI-83-25, 18 NRC 327, 332 (1983) (citing Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610 (1976)). Contemporaneous judicial standards for standing require a petitioner to demonstrate that (1) it has suffered or will suffer a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statutes (e.g., the Atomic Energy Act of 1954 (AEA), the National Environmental Policy Act of 1969 (NEPA)); (2) the injury can be fairly traced to the challenged action; and (3) the injury is likely to be redressed by a favorable decision. See Carolina Power & Light Co. (Shearon Harris Nuclear Power Plants), LBP-99-25, 50 NRC 25, 29 (1999). An organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members. See Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 271 (1998). To intervene in a representational capacity, an organization must show not only that at least one of its members would fulfill the standing requirements, but also that he or she has authorized the organization to represent his or her interests. See Private Fuel Storage, L.L.C. (Independent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 168, aff’d on other grounds, CLI-98-13, 48 NRC
Standing to participate in this proceeding is demonstrated by the declarations of the organizations and individuals provided with this Petition. All of the individual Petitioners live within 50 miles of the Fermi 2 site who have authorized Beyond Nuclear to represent their interests in this proceeding.

Because they live near the proposed site, i.e., within 50 miles, the individually-named Petitioners have presumptive standing by virtue of their proximity to the new nuclear plant that may be constructed on the site. *Diablo Canyon*, supra, 56 NRC at 426-427, citing *Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4),* LBP-01-6, 53 NRC 138, 146, aff’d, CLI-01-17, 54 NRC 3 (2001). In *Diablo Canyon,* the Licensing Board noted that petitioners who live within 50 miles of a proposed nuclear power plant are presumed to have standing in reactor construction permit and operating license cases, because there is an “obvious potential for offsite consequences” within that distance. *Id.* Here, the NRC has issued a proposed order modifying the operating license for Fermi 2, near Monroe, Michigan. Thus, the same standing concepts apply.

The Petitioners’ members seek to protect their lives and health by opposing the stated license-modifying orders to Fermi 2.

Further, *locus standi* is based on three requirements: injury, causation and redressability. Petitioners hereby request to be made a party to the proceeding because (1) construction and operation of dry casks at Fermi 2 would present a tangible and particular harm to the health and well-being of members living within 50 miles of the site,
(2) the NRC has ordered modification of an operating license, which terms Petitioners believe do not provide adequate safety and security for themselves and the environment, and (3) the Commission is the sole agency with the power to approve, to deny or to modify those ordered terms and conditions.

Contentions

Generally, Petitioners maintain that the security arrangements ordered by the Commission for storage of spent fuel at Fermi 2 are inadequate and have not been properly considered under NEPA or the safety rules and regulations of the NRC.

Petitioners present their sundry contentions as attachments to this Petition. They incorporate the same fully by reference into this Petition as though rewritten, and pray the Commission admit them for full and further adjudication.

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CONTENTIONS

Petitioners contend that the U.S. Nuclear Regulatory Commission (NRC) must require Detroit Edison Company (DTE) to perform a vulnerability assessment of Fermi 2's ISFSI plan and pursuant to the National Environmental Policy Act of 1970 (NEPA), identify, analyze and consider alternatives to the current ISFSI general license which address needed security upgrades and their ramifications, as well as socio-logical, civil liberties and societal costs. A full Environmental
Impact Statement (EIS) regarding the safety, security, and environmental impacts of the Fermi 2 dry cask storage installation, and on-site high-level radioactive waste storage risks more generally (including waste pool storage), should be undertaken. This EIS should consider worst case impacts in terms of safety, security, and environmental risks associated with Fermi 2’s on-site storage of irradiated nuclear fuel, including both within waste storage pools, as well as dry cask storage risks.

Petitioners urge that the alternative of hardened on-site storage (“HOSS”) should be required as an interim measure to adequately protect public health, safety, and security, as well as the environment. Petitioners further submit that the alternative of a wet well, or waste storage, transfer, and handling pool, should be required at ground level on the site, in order to allow for future repackaging of waste storage containers as their integrity breaks down over time, as well as to serve as an emergency storage and handling location in the event of problems with dry storage casks. Petitioners demand that an independent quality assurance inspection on the design and manufacture of Holtec International high-level radioactive waste storage/transport containers be required before their deployment at Fermi. The storage methodology used on-site at the Fermi nuclear power plant must also be used only following the assessment of earthquake risks at the site, including those presented by the New Madrid fault line system and other Lake Erie region fault line systems.

The rationale for Petitioners’ contentions is detailed below.

A. **Physical Security Contentions**

Many investigations, reports, and analyses have revealed that
high-level radioactive waste storage at nuclear power plants such as Fermi 2 involves safety and security risks. These revelations were apparent well before the September 11, 2001 terrorist attacks upon the United States.

Nearly a quarter century ago, Bennett Ramberg published “Nuclear Power Plants As Weapons For the Enemy: An Unrecognized Military Peril” (University of California Press, 1985). In it, Ramberg warned that the risk created by the possibility of nuclear power reactors being bombed by hostile forces had not been adequately recognized. Ramberg explained how the bombing, with conventional explosives, of a major nuclear power station or radioactive waste storage facility could contaminate thousands of square miles, and suggested ways to diminish the vulnerability of such facilities through physical safeguards and legal restraints.

By June 1998, it was known that dry casks were vulnerable to attacks, such as by TOW anti-tank missiles. This was revealed by a test conducted upon a German CASTOR storage/transport cask at the U.S. Army’s Aberdeen Proving Ground. See “Armor Piercing Missile Perforates High-Level Radioactive Waste Storage/Transport Cask In U.S. Army Aberdeen Proving Grounds Test” at http://www.nirs.org/factsheets/nirsfctshtdrycaskvulnerable.pdf for more information. This revelation was of deep security significance, for each and every fully-loaded high-level radioactive waste dry cask in the United States contains over 200 times the long-lasting radioactivity released by the Hiroshima atomic bomb. For example, casks containing 24 pressurized water reactor (PWR) irradiated nuclear fuel assemblies contain about 240 times the long-lasting radioactivity released at Hiroshima. Casks
Committee to Bridge the Gap went on to help lead coalition efforts to petition NRC to implement such security upgrades at reactors and waste storage facilities as “Beamhenge,” a cage of steel I beams forming a protective shield around nuclear facilities. NRC containing 32 PWR assemblies hold 320 times the long-lasting radioactivity released at Hiroshima. These figures, calculated by Dr. Marvin Resnikoff of Radioactive Waste Management Associates in New York City, are conservative, for they only account for the five radioactive isotopes of cesium, which are particularly volatile, but not the hundreds of additional radionuclides present in the irradiated nuclear fuel. Thus, a successful explosive and incendiary attack upon fully loaded dry casks could unleash a disastrous amount of radioactivity onto the winds and waters, to harm humans and the environment downwind and downstream.

Then, in January 2001, the NRC published its "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," NUREG-1738. Although this report focused on accidental heavy load drops into waste storage pools at decommissioned nuclear power plants, the risk consequences of a pool drain-down are equally applicable to pool drain downs due to terrorist attacks at operating nuclear power plants such as Fermi 2. NRC reported that the loss of cooling water in a waste storage pool could lead to 25,000 or more latent fatal cancers downwind, with deaths occurring as far as 500 miles away.

The terrorist attacks of 9/11/2001 elevated awareness that not only accidents, but also attacks, could cause catastrophic radioactivity releases at nuclear power plants. Just weeks after the attacks, Committee to Bridge the Gap and Nuclear Control Institute held a press conference to discuss the urgent need for increased security at nuclear facilities. The conference focused on the findings of the "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants" and the potential consequences of terrorist attacks on nuclear facilities.
conference at the National Press Club in Washington D.C. to call attention to nuclear power plant vulnerabilities to terrorist attacks. They invited Bennett Ramberg, author of “Nuclear Power Plants As Weapons For the Enemy” cited above, to share his now 16-year-old insights about such risks.

On October 22, 2001, Nuclear Energy Information Service in Chicago, Illinois published “HERE TODAY, THERE TOMORROW: COMMERCIAL NUCLEAR REACTOR SITES AS TERRORIST TARGETS.” In this report (viewable in full at http://www.nirs.org/reactorwatch/security/neisterroristpaper.htm), NEIS documented terrorist attack risks at nuclear power plant spent fuel storage pools and dry cask storage facilities, as well as NRC’s indifference at best, and irresponsibility at worst, regarding the issue of "credible terrorist threat."

In November 2001, a coalition of dozens of environmental organizations published a “Mandate for Securing America's Electricity Supply.” In it, most relevantly to the current matter, they demanded that:

Congress must mandate that utility-funded security operations be increased at existing nuclear reactors and maintained throughout plant life and the on-site storage of irradiated nuclear fuel. Current security at U.S. nuclear reactors is unacceptable. The NRC and the International Atomic Energy Agency have acknowledged that the containment buildings housing nuclear reactors are not designed to withstand an attack of the type and scale used against the World Trade Center and Pentagon. Since 1991, despite months of advanced warning and beefed up security forces, nearly half (47%) of U.S. nuclear power plants failed to repel small mock terrorist attacks conducted by the NRC. These exercises did not assess the full Design Basis Threat that NRC regulations require nuclear power plants to protect against. Moreover, these exercises failed to assess the ability of nuclear plants to defend against attacks by truck bomb, aerial, and water-borne assault, three likely scenarios that fall outside the current Design Basis Threat.

All branches of government must ensure that the terrorist attacks do not result in the erosion of fundamental civil liberties. The hallmarks of our free society and our values are manifested and secured in the Bill of Rights. Therefore, it is essential that security programs and activities clearly differentiate between legitimate terrorist threats and the rights of the public to peacefully assemble, exercise free speech, organize and educate.

The full text of the mandate is viewable at http://www.nirs.org/reactorwatch/security/mandateforsecuringamerica.htm.

In June, 2002 the Institute for Energy and Environmental Research coined the phrase “hardened on-site storage,” calling for it to be implemented as a necessary security upgrade at all nuclear power plants in the country. IEER’s media announcement and “Alternative Nuclear Waste Plan” can be viewed at http://www.ieer.org/comments/waste/yuccaalt.html. Dr. Arjun Makhijani of IEER argued that on-site storage of irradiated nuclear fuel had to be made more secure, in order to deter the likelihood that terrorists would choose to attack it to cause catastrophic radioactivity releases.

In January 2003, Dr. Gordon Thompson of the Institute for Resource and Security Studies, in association with the Citizens Awareness Network (CAN), published “Robust Storage of Spent Nuclear
Fuel: A Neglected Issue of Homeland Security.” The comprehensive report, including a diagram depicting “robust” dry cask storage, can be viewed at http://www.nirs.org/reactorwatch/security/sechossrpt012003.pdf. Dr. Thompson argued that terrorists might even choose to detonate a nuclear weapon at a nuclear power plant in order to maximize the catastrophic radiological releases associated with vulnerable on-site stored wastes. Therefore, his Design Basis Threat involved the detonation of a 10 kiloton nuclear explosive; his proposed “Robust Storage” would contain the spent nuclear fuel stored on-site, preventing a catastrophic radioactivity release even in the event of such a large-scale terrorist attack.

In January 2003, Robert Alvarez, Jan Beyea, Klaus Janberg, Jungmin Kang, Ed Lyman, Allison Macfarlane, Gordon Thompson, and Frank N. von Hippel published "Reducing the hazards from stored spent power-reactor fuel in the United States" in Science & Global Security, Vol. 11, No. 1, 2003, p. 6. This article is viewable at http://www.princeton.edu/%7Eglobsec/publications/pdf/11_1Alvarez.pdf. In it, the authors reported that a terrorist attack that successfully drained the cool water from a nuclear power plant irradiated nuclear fuel storage pool could cause a catastrophic radioactivity release that would dwarf the Chernobyl nuclear disaster in size and scope. Alvarez et al. summed up the potential consequences: "A 1997 study done for the NRC estimated the median consequences of a spent-fuel fire at a pressurized water reactor that released 8 to 80 mega-curies of cesium-137. The consequences included 54,000-143,000 extra cancer deaths, 2,000-7,000 square kilometers of agricultural land condemned, and economic costs due to evacuation of US$117-566 billion. It is obvious that all
practical measures must be taken to prevent the occurrence of such an event." In short, "The long-term land-contamination consequences of such an event could be significantly worse than those from Chernobyl," they concluded.

The Alvarez report, combined with a congressional education campaign launched by the Nuclear Security Coalition cited above, led to congressional calls for an National Academy of Sciences (NAS) report on radioactive waste vulnerabilities to terrorist attack. NAS completed its report in 2005, but the NRC fought its public release. After many months, NAS was able to release a redacted public version of the report, entitled “Safety and Security of Commercial Spent Nuclear Fuel,” on April 6, 2005. The NAS affirmed the findings of Alvarez et al. and concerned community groups across the U.S., that waste storage pools are at risk of terrorist attack, and that security upgrades should be implemented to prevent catastrophic radioactivity releases. The Nuclear Security Coalition immediately commended NAS for its valuable study, and filed a supplemental emergency enforcement petition to the NRC. However, the Commission again rejected the citizens petition for security upgrades. See http://www.nirs.org/press/04-06-2005/1; http://www.nirs.org/reactorwatch/security/nscnas2206sup08102004.pdf; http://www.nirs.org/press/04-20-2005/1; http://www.nirs.org/reactorwatch/security/bwrnsc2206propdd06292005m10512500100.pdf; http://www.nirs.org/reactorwatch/security/gebwr2206sfpvulnerabilityresponsetocommentsproposeddecision11082005.pdf; http://www.nirs.org/reactorwatch/security/nscresponsenrcrejectsbwrpetition.pdf.

In June 2006, San Luis Obispo Mothers for Peace and the Sierra

In September, 2006, over 150 national, regional, and grassroots environmental groups signed a “Statement of Principles for Safeguarding Nuclear Waste at Reactors.” The Statement, unveiled at a congressional hearing, outlined the basic principles of hardened on-site storage, and called upon Congress to require this needed national security upgrade at nuclear power plant sites across the country. The Statement of Principles is posted at http://www.beyonduuclear.org/images/documents/principles_for_safeguarding_irradiated_fuel_knownukesnvalley_9152008.pdf.

In May 2007, Esquire Magazine revealed a major security breach at the Palisades nuclear power plant in southwest Michigan. Nuclear Information and Resource Service called for a congressional investiga-
tion of the grave incident: see http://www.nirs.org/press/05-15-2007/1. Congressman Ed Markey (D-MA) immediately questioned NRC Chairman Dale Klein about the incident, see http://markey.house.gov/index.php?option=com_content&task=view&id=2836 ). Chairman Klein’s initial and final responses to Congressman Markey’s inquiry essentially downplayed the security significance of the breach, indicating a lack of NRC interest in learning lessons from the incident. The lessons not learned included major failures with both nuclear power industry and NRC vetting procedures for security related personnel, another matter of direct relevance to this Fermi 2 dry cask storage proceeding. In fact, the Palisades security breach’s lessons went so “un-learned” that the Federal Bureau of Investigation and Michigan State Police continued an emergency security response program a full year later that was instituted and conceived of by the head of Palisades security that Esquire Magazine revealed to be a hoax, pathological liar, and entirely unqualified for such a significant security chief position. Incredibly, this “viper squad” security program was highlight by NRC at its March 2008 Regulatory Information Conference as a model to be implemented at nuclear power plants across the U.S.

Thus, security vulnerabilities have long been identified. Petitioners seek to intervene in this proceeding to ensure that adequate security is instituted at the Fermi 2 nuclear power plant over its on-site stored irradiated nuclear fuel, both in the storage pool and in dry casks.

B. Quality Assurance

Petitioners demand an independent quality assurance inspection to
be performed on Holtec International dry cask storage/transport containers before they are used at the Fermi nuclear power plant.


Holtec storage/transport casks are the first dual purpose container for irradiated nuclear fuel certified by the U.S. Nuclear Regulatory Commission (NRC). According to Holtec International's website (http://www.holtecinternational.com), Holtec casks are already deployed at 33 U.S. nuclear power plants. Up to 4,000 rail-sized Holtec storage/transport casks would also be used at the proposed Private Fuel Storage interim storage facility in Utah. Given the U.S. Department of Energy's (DOE) recent decision to use “mostly rail” transport to the proposed Yucca Mountain repository, Holtec casks could very well become among the most used shipping containers for highly radioactive waste.

Exelon, the largest nuclear utility in U.S., uses Holtec casks for irradiated fuel storage at its reactor sites. In 1999 and 2000, Oscar Shirani, as a lead quality assurance (QA) auditor for Exelon, identified numerous “major design and fabrication issues” during a QA inspection of Holtec International (the cask designer), Omni Fabrication, and U.S. Tool & Die (the subcontractors responsible for manufacturing the casks). In fact, he identified a “major breakdown” in the QA program itself. The problems were so severe that Shirani sought a Stop Work Order against the manufacturer of the casks until the problems were addressed. Instead, he was run out of Exelon. According to Shirani, these design and manufacturing flaws meant that the
structural integrity of the Holtec casks is indeterminate and unreliable, especially under heat-related stress such as during a severe transportation accident.

Although the NRC has dismissed Shirani’s concerns, NRC Region III dry cask inspector Ross Landsman refused to sign and approve the NRC’s resolution of Shirani’s concerns, concluding that this same kind of thinking led to NASA’s Space Shuttle disasters. He stated in September 2003, “Holtec, as far as I’m concerned, has a non-effective QA program, and U.S. Tool & Die has no QA program whatsoever.” Landsman added that NRC’s Nuclear Reactor Regulation division did a poor follow-up on the significant issues identified, and prematurely closed them. Dr. Ross Landsman, fully supported and backed up Shirani’s QA allegations against Holtec casks. See http://www.nirs.org/radwaste/atreactorstorage/nrc_holtec.pdf [the hand-written notes at the bottom of these documents were written by Oscar Shirani].

Shirani alleged that all existing Holtec casks, some of which are already loaded with highly radioactive waste, as well as the casks under construction now, still flagrantly violate engineering codes, such as those of the American Society of Mechanical Engineers [ASME] and American National Standards Institute [ANSI]), as well as NRC regulations. He concluded that the Holtec casks are “nothing but garbage cans” if they are not made in accordance with government specifications.

Specific examples of the QA violations and related problems alleged by Shirani include:

> Welding problems, such improper “fast cooling” of hot cask welds and metal using fans and air conditioning equipment, which are
in violation of ASME and ANSI codes and risk tearing and cracking of the unevenly cooling welds and metal, in order to meet production goals. Welds on the casks were also performed by unqualified welders. Even NRC has acknowledged that “weld quality records are not in agreement with the code requirements.”[4]

> Inadequate controls on the quality of materials used in the manufacturing process, risking brittleness and weakness in the casks.

> Holtec’s failure to report holes in neutron shielding material (neutrons are especially hazardous emissions from highly radioactive waste).

> US Tool & Die’s failure to use coupon (a small physical sample of metal) testing, and Post Weld Heat Treatment on a regular basis, as required by ASME code and in violation of the codes that were part of the license agreement with NRC.

> Holtec and U.S. Tool & Die quality control inspectors’ bypass of hundreds of non-conforming conditions, departures from the original design during cask manufacture. The departures from the original design amount to design changes that require revised analysis to guarantee that manufactured casks actually live up to the structural integrity of the original design. The fact that this revised analysis was never done is in violation of ASME and ANSI codes, and thus NRC regulations, and means the actual manufactured casks' structural integrity is questionable, according to Shirani.

> Holtec’s consent to allow U.S. Tool & Die to make design decisions and changes, despite the fact that U.S. Tool & Die does not have design control capability under its QA program.

> Failure to conduct a “root cause investigation” of Holtec’s QA
program, even though root causes are the main reason for repeated deficiencies.

> Exelon’s obstruction of Shirani from performing any follow-up of the audit to confirm that problems had been solved, despite knowing that the fabrication issues identified would have a detrimental impact on the design.

> Exelon’s falsified quality-assurance documents and the misleading of the NRC investigation, stating that Shirani’s allegations of QA violations were resolved when in fact they were not.

> Lack of understanding within the NRC of the design control process and Holtec’s QA program, relating to flaws in welding, design, manufacturing, and materials procurement control. NRC lacked a corrective action mechanism for repeated findings. Shirani alleged his audit findings embarrassed NRC because it had also audited the Holtec casks just a few months previously but found no problems whatsoever.

Shirani concluded that these numerous design and manufacturing flaws called into question the structural integrity of the Holtec casks, especially under heat-related stress such as during severe transportation accidents. He also warned that his eight-day audit showed him only a snapshot of problems, and that there could in fact be additional ones yet to be identified.

As revealed by Shirani and Landsman, the structural integrity of the Holtec casks is questionable – especially in the event of a terrorist attack upon them. NRC’s Office of Inspector General reported that Shirani’s QA observations and allegations against Holtec dry storage/transport cask design and manufacture could not be dismissed, and yet still reported that NRC had done nothing wrong in
his case despite his firing by Exelon/Commonwealth Edison and subsequent blacklisting from the U.S. nuclear power industry and NRC for several long years. NRC’s own QA audit of Holtec dry casks just months before Shirani’s found no problems with their design or manufacture. This contradiction certainly calls into question NRC’s competence at performing dry cask QA audits, especially considering its lack of action for nine long years after Shirani and Landsman first revealed their findings of QA violations. Before any Holtecs are deployed at Fermi nuclear power plant, an independent QA assessment should be carried out, given NRC staff’s apparent lack of competence and seeming indifference to the protection of public health and safety and the environment following industry and NRC whistle-blowers called attention to Holtec QA violations.

C. **Civil Liberties Impacts**

Petitioners demand as part of the EIS that there be a socio-logical impacts analysis under NEPA which includes analysis of potential civil liberties infringements upon legal rights guaranteed by the First, Fourth, Fifth Amendments to the U.S. Constitution and state and federal laws governing surveillance.

The problem of safeguarding society against the hazards of highly-radioactive nuclear materials from power plant spent fuel - misnomered as "waste" - are formidable in an economy which increas-ingly uses and depends upon generation of such dangers. There are particular risks during transport of the waste between nuclear installations, although techniques could be adopted to make access to this dangerous and lethal material both dangerous and difficult. There is also, however, the risk of theft or deliberate terrorist destruc-

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tion of nuclear material by direct action at installations where it is stored, or by people working in the industry.

To counteract these risks, the NRC envisions creation of a special security organization at Fermi (part of a much larger system) which, because of the vast potential consequences of nuclear material loss, would need to exercise extensive thoroughness and vigilance to safeguard the material.

This core security organization at Fermi would be part of the larger "nuclear priesthood" (a term coined by the late Alvin Weinberg, eminent nuclear physicist at the Oak Ridge Nuclear Laboratory) which is forming within the commercial nuclear industry, a dedicated, self-perpetuating body of people forming a technological elite which will have to be entrusted down through generations with the task of safeguarding society from these waste-driven hazards of nuclear power.

Writing in the Harvard Law Review, Russell Ayres states flatly that "plutonium provides the first rational justification for widespread intelligence gathering against the civilian population." The reason for this is that the threat of nuclear terrorism justifies such encroachments on civil liberties for "national security" reasons. It is inevitable, therefore, says Ayres, that "plutonium use would create pressures for infiltration into civic, political, environmental and professional groups to a far greater extent than previously encountered and with a greater impact on speech and associated rights. . . ." "Social control is justified," Ayres continues, "particularly as far as the plutonium economy is concerned, by the overriding necessity

to avoid the catastrophe which might occur either through carelessness, disobedience, or 'terrorism.'"

As the Fermi 2 waste becomes more voluminous, the correspondingly nuanced surveillance needs must be considered along with their implications for the wider community, and society in general. An effective security organization cannot be merely passive, simply reacting to events. It would need to have an active role -- that is, to infiltrate potentially dangerous organizations (dangerous, that is, as defined by the "priesthood"), and to monitor the activities of all nuclear employees and increasing numbers of citizens. Clandestine operations aimed at preventing breaches of "national security", i.e., the Atomic Energy Act, would have to be considered. The security apparatus would also have to have powers of search and powers to clear whole areas in an emergency.

These operations would likely be conducted on a scale even exceeding what has been undertaken to date in the Monroe-Detroit-Toledo region under the aegis of the ballyhooed "war on terror".

It appears quite likely that adequate security against nuclear threats will be obtained only at the price of inexorable infringements of personal freedom. The security measures probably necessary to protect society could seriously affect personal liberties. The need for such measures would be affected by increasing tensions between nations or subgroups of perceived extremists. Indeed, the future risks posed by radioactive garbage that Gordon Thompson warns is stored in such a way that it constitutes nuclear weapons awaiting detonation, is genuine and serious. The cost to free expression - criticism of convention power generation, growing advocacy for alternate sources of
power, insistence upon utility regulation which does not implicate such security “baggage” - is an unassessed and unquantified societal cost which is embodied, in part, in the expanding “nuclear priesthood.”

It is remarkable that there has not been widespread unease in the debates about management of highly-radioactive waste. Instead, the management and safeguarding of these enormously lethal materials are regarded as just another problem arising from nuclear development whose only needed resolution is the perfection of suitable control arrangements. Nowhere is there any suggestion of apprehension about the possible long-term dangers to the fabric and freedom of American society; rather, its citizens are the subjects of some of those “suitable control arrangements.” The “plutonium economy is plainly incompatible with civil liberties.3

The time is at hand for development and analysis of civil liberties impacts within an EIS of the Fermi ISFSI.

WHEREFORE, Petitioners pray the Commission admit their contentions for hearing.

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CERTIFICATE OF SERVICE

I hereby certify that on May 7, 2009 I electronically filed the foregoing “Petition” with the electronic filing system of the U.S. Nuclear Regulatory Commission and that all persons and parties of

3http://www.ratical.org/radiation/inetSeries/plutoEcon.html
record were electronically served.

/s/ Terry J. Lodge
Terry J. Lodge, Esq.
Counsel for Petitioners
DECLARATION OF AUTHORIZED OFFICIAL OF BEYOND NUCLEAR IN SUPPORT OF PETITION TO INTERVENE IN DOCKET 52-033 (ISFSI SECURITY)

Under penalty of perjury, I, Kevin Kamps, declare as follows:

1. I am employed by Beyond Nuclear, a nonprofit organization located at 6930 Carroll Avenue, Suite 400, Takoma Park, Maryland 20912. I am the Director of Radioactive Waste Watchdog Project. I am authorized to sign this declaration. Beyond Nuclear is formally and officially opposed to the proposed security plans and conditions for the Independent Spent Fuel Storage Installation (ISFSI) located to be constructed and deployed by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. Beyond Nuclear has approximately 8000 members overall, and several live within 50 miles of the Fermi 2 ISFSI site. Beyond Nuclear is concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect the health and safety and the integrity of the environment in which Beyond Nuclear members live. Beyond Nuclear is particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects Beyond Nuclear’s member interests in a safe and healthy environment, Beyond Nuclear formally seeks to intervene on behalf of its members, Keith Gunter, Michael Keegan, Mark Farris, Marilyn Timmer and Shirley Steinman, who have attached their declarations, in any licensing proceeding and/or related rulemaking proceeding that concerns the safety and environmental impacts of that ISFSI. Beyond Nuclear intends to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides for full consideration of all licensing issues that could affect its members’ safety and health and the health of their environment.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

5/7/2009

Date

BEYOND NUCLEAR

By

Kevin Kamps

Radioactive Waste Watchdog Project
UNIVERS STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

DECLARATION OF Frank Marte in support of beyond nuclear petition
to intervene in docket 52-033 (ISFSI security)

Under penalty of perjury, I, Frank Marte, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit
organization located in Takoma Park, Maryland. I reside at
511 St. Mary's Ave, Monroe, Mich., Michigan. My residence lies
within 50 miles of the proposed site of the independent spent fuel
storage installation proposed to be deployed and operated by Detroit
Edison Company at the site of its Fermi 2 nuclear power plant at
Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and
security measures for the Fermi 2 ISFSI in their present form, the
construction and deployment of dry cask storage at Fermi 2 could
adversely affect my health and safety and the integrity of the
environment in which I live. I am particularly concerned about the
risk of the accidental release or intentional release as a result of
deliberate human acts of radiation into the environment and the
potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the
Fermi Unit 2 ISFSI protects my interests in a safe and healthy
environment, I have authorized Beyond Nuclear to represent me in any
licensing proceeding and/or related rulemaking proceeding that
concern the safety and environmental impacts of that ISFSI. I have
also authorized Beyond Nuclear to take any legal actions necessary
to ensure the licensing or permitting proceeding and any associated
rulemaking proceeding are conducted fairly, efficiently and in a
manner that provides the full consideration of all licensing issues
that could affect my safety and health and the health of my
environment. In the event that Beyond Nuclear is not granted leave
to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true
and correct and that any expressions of opinion are based on my
judgment.

Frank Marte

SIGN ABOVE AND PRINT NAME HERE:

5/7/09

[DATE]
Under penalty of perjury, I, Keith Gunter, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit organization located in Takoma Park, Maryland. I reside at 15784 WHITBY STREET, LIVONIA, Michigan. My residence lies within 50 miles of the proposed site of the independent spent fuel storage installation proposed to be deployed and operated by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects my interests in a safe and healthy environment, I have authorized Beyond Nuclear to represent me in any licensing proceeding and/or related rulemaking proceeding that concern the safety and environmental impacts of that ISFSI. I have also authorized Beyond Nuclear to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides the full consideration of all licensing issues that could affect my safety and health and the health of my environment. In the event that Beyond Nuclear is not granted leave to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

C. KEITH GUNTER

[SIGN ABOVE AND PRINT NAME HERE]: C. KEITH GUNTER

MAY 7, 2009

[DATE]
UNIVERSITY OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

DECLARATION OF Michael Keegan IN SUPPORT OF BEYOND NUCLEAR PETITION TO INTERVENE IN DOCKET 52-033 (ISFSI SECURITY)

Under penalty of perjury, I, Michael Keegan, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit organization located in Takoma Park, Maryland. I reside at 811 Hamers Street, Ann Arbor, Michigan. My residence lies within 50 miles of the proposed site of the independent spent fuel storage installation proposed to be deployed and operated by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects my interests in a safe and healthy environment, I have authorized Beyond Nuclear to represent me in any licensing proceeding and/or related rulemaking proceeding that concern the safety and environmental impacts of that ISFSI. I have also authorized Beyond Nuclear to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides the full consideration of all licensing issues that could affect my safety and health and the health of my environment. In the event that Beyond Nuclear is not granted leave to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

Michael Keegan

[SIGN ABOVE AND PRINT NAME HERE]:

5/7/09

[DATE]
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

DECLARATION OF Leonard Mandeville in Support of Beyond Nuclear Petition to Intervene in Docket 52-033 (ISFSI Security)

Under penalty of perjury, I, Leonard Mandeville, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit organization located in Takoma Park, Maryland. I reside at 1280 S. Raisinville, Monroe, Michigan. My residence lies within 50 miles of the proposed site of the independent spent fuel storage installation proposed to be deployed and operated by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects my interests in a safe and healthy environment, I have authorized Beyond Nuclear to represent me in any licensing proceeding and/or related rulemaking proceeding that concern the safety and environmental impacts of that ISFSI. I have also authorized Beyond Nuclear to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides the full consideration of all licensing issues that could affect my safety and health and the health of my environment. In the event that Beyond Nuclear is not granted leave to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

Leonard Mandeville

[Sign above and print name here]:

5/07/09

[Date]
DECLARATION OF Marcee Meyers in Support of Beyond Nuclear Petition to Intervene in Docket 52-033 (ISFSI Security)

Under penalty of perjury, I, Marcee Meyers, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit organization located in Takoma Park, Maryland. I reside at 1280 South Rainierville Rd, Monroe, Michigan. My residence lies within 50 miles of the proposed site of the independent spent fuel storage installation proposed to be deployed and operated by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects my interests in a safe and healthy environment, I have authorized Beyond Nuclear to represent me in any licensing proceeding and/or related rulemaking proceeding that concern the safety and environmental impacts of that ISFSI. I have also authorized Beyond Nuclear to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides the full consideration of all licensing issues that could affect my safety and health and the health of my environment. In the event that Beyond Nuclear is not granted leave to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

[Signature Above and Print Name Here]:

Marcee Meyers

[Date]: 5-07-09
UNIVERS STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

DECLARATION OF Marilyn R. Timmer
IN SUPPORT OF BEYOND NUCLEAR PETITION
TO INTERVENE IN DOCKET 52-033 (ISFSI SECURITY)

Under penalty of perjury, I, Marilyn R. Timmer, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit organization located in Takoma Park, Maryland. I reside at 507 St Mary's Ave, Monroe, MI 48161, Michigan. My residence lies within 50 miles of the proposed site of the independent spent fuel storage installation proposed to be deployed and operated by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects my interests in a safe and healthy environment, I have authorized Beyond Nuclear to represent me in any licensing proceeding and/or related rulemaking proceeding that concern the safety and environmental impacts of that ISFSI. I have also authorized Beyond Nuclear to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides the full consideration of all licensing issues that could affect my safety and health and the health of my environment. In the event that Beyond Nuclear is not granted leave to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

[Signature Above and Print Name Here]: Marilyn R. Timmer

[Date]: 5-7-09
UNIVERSITY OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

DECLARATION OF MARK FARRIS IN SUPPORT OF BEYOND NUCLEAR PETITION
TO INTERVENE IN DOCKET 52-033 (ISFSI SECURITY)

Under penalty of perjury, I, MARK FARRIS, declare as follows:

1. I am a member in good standing of Beyond Nuclear, a nonprofit organization located in Takoma Park, Maryland. I reside at 419 E 2nd St Monroe, Michigan. My residence lies within 50 miles of the proposed site of the independent spent fuel storage installation proposed to be deployed and operated by Detroit Edison Company at the site of its Fermi 2 nuclear power plant at Newport, Michigan.

2. I am concerned that if the NRC approves proposed installation and security measures for the Fermi 2 ISFSI in their present form, the construction and deployment of dry cask storage at Fermi 2 could adversely affect my health and safety and the integrity of the environment in which I live. I am particularly concerned about the risk of the accidental release or intention release as a result of deliberate human acts of radiation into the environment and the potential harm to groundwater and surface waters.

3. In order to ensure that the licensing or permitting decision for the Fermi Unit 2 ISFSI protects my interests in a safe and healthy environment, I have authorized Beyond Nuclear to represent me in any licensing proceeding and/or related rulemaking proceeding that concern the safety and environmental impacts of that ISFSI. I have also authorized Beyond Nuclear to take any legal actions necessary to ensure the licensing or permitting proceeding and any associated rulemaking proceeding are conducted fairly, efficiently and in a manner that provides the full consideration of all licensing issues that could affect my safety and health and the health of my environment. In the event that Beyond Nuclear is not granted leave to intervene as my representative, I seek to intervene individually.

I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

Mark Farris
MARK FARRIS

[SIGN ABOVE AND PRINT NAME HERE]:

5.7.09

[DATE]
I declare under penalty of perjury that the foregoing facts are true and correct and that any expressions of opinion are based on my judgment.

Shirley M. Steinman
[SIGN ABOVE AND PRINT NAME HERE]:

5-7-09
[DATE]