RAS 14924

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFTEY AND LICENSING BOARD

DOCKETED
USNRC

December 31, 2007 (8:00am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Before Judges:

Lawernce G. McDade, Chair

Dr. Richard E. Wardwell

Dr. Kaye D. Lathrop

In the Matter of	)	Docket Nos 50-247-LR and 50-286-LR
	)	
ENTERGY NUCLEAR	)	
OPERATIONS, INC.	)	ASLBP No, 07-858-03-LR-BDNO1
ENTERGY NUCLEAR	)	
INDIAN POINT 2, LLC	)	SUPERCEDING
ENTERGY NUCLEAR	)	Formal Petition To Intervene
INDIAN POINT 3, LLC	)	Formal Request For Hearing, and Contentions
(Indian Point Nuclear)		
Generating Units 2 and 3)		

NOTICE OF APPEARANCE

Heather Ellsworth Burns-DeMelo, John LeKay, Remy Chevalier, Belinda J. Jaques and Bill Thomas on behalf of FUSE USA on this the 24th day of December, 2007and pursuant to 10 CFR §2.314(b) give notice of appearance on behalf FUSE USA, and our members. We note here, that executed, signed and dated individual Notice of Appearances have been executed, and are attached to this filing as Exhibits 76, 77, 78, 79 and 80. John LeKay is acting as master signer, but all underlying FUSE USA Board and

TEMPLATE = SECY-037

SECY-02

Advisory Board Members are appearing on behalf of FUSE USA and our members, as is witnessed by their attached Notice of Appearances marked as exhibits 76-80.

By:

John LeKay
Heather Ellsworth Burns-DeMelo
Remy Chevalier
Bill Thomas
Belinda J. Jaques
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

Superceding Request for Hearing and Petition to Intervene
Check List of Boards Order

Below is a check list. FUSE USA certifies that they have to the best of their ability, in the limited time available have complied to the wishes of the board, and this check list is meant as an external/internal check list of the instructions by the board in the Superceding Request for Hearing and Petition to Intervene.

1) Clearly label the revised petition as the "Superceding Request for Hearing and Petition to Intervene," with each page numbered, and an index listing all of the attached exhibits;

This task has been fully accomplished. Document is titled Superceding Request for Hearing and Petition to Intervene. Pages are numerically ordered, and we have included and index of attached exhibits.

2) Modify the petition to reflect the new representation (e.g. changing, as needed, the first person pronouns) and to delete or correct language not meeting common standard of practice and decorum;

This has been done to the best of our ability in the short window of opportunity we had to resubmit our filing. None of us currently involved were actively involved in the preparation of the original submissions. We have attempted to catch all nouns relating to representation, and correct same, but have not redacted, as example, material issues of fact that rely upon the representations of Sherwood Martinelli...for instance, FUSE USA offices are located in his home at

351 Dyckman Street, Peekskill New York and his banishment from the proceedings does not change that material fact. We have also diligently attempted to correct any language that the Board might feel falls outside the proper decorum of this proceeding.

3) Verify that all proffered contentions are numbered sequentially; and

All contentions have been numbered sequentially, and we have included and index of same at the beginning of our submission.

4) Certify that the numbered contentions are the only ones to be considered by the parties and the Board.

Please see our Certification below.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

Superceding Request for Hearing and Petition to Intervene
Certification of Contentions

It is noted here, that FUSE USA has been informed by Sherwood Martinelli that he intends to ask for a formal review of his censure and disbarment from the proceedings.

We therefore, certify, that the contentions contained in this new Superceding Request for Hearing and Petition to Intervene are the only contentions up for Consideration of this Board, and other parties barring a successful court appeal on the part of our Director, Sherwood Martinelli. We cannot speak for him, as he submitted the previous contentions on behalf of both himself, and FUSE USA. Further, as of right now, he cannot address the board on this manner, as he is barred from participation. We do not feel it is our place to speak for him, nor can we represent his interests, as he filed his previous filings on behalf of both himself as a stakeholder, and on behalf of FUSE USA.

Should he therefore successfully appeal his disbarment from these proceedings, we as an organization of which he is the director are not sure exactly what the legal repercussions of that would be, nor what affect it should or would have on his previously filed documents with this board on behalf of himself, and FUSE USA.

We therefore per the boards order and instructions, certify as required that this new FUSE USA Superceding Request for Hearing and Petition to Intervene and the contentions contained herein are the only contentions up for consideration by this board, and other parties, with the caveat that we legally cannot wave Sherwood Martinelli's right to appeal and redress, nor

do we have any control over a court's decision should same decide to reinstate him, and the contentions that he has previously filed.

As a note herein, we have spoken extensively with Sherwood Martinelli on this matter, and he is prepared to offer a resolution when and if recognized by this board to do so which would resolve the issues surrounding all previously filed contentions which he submitted both on behalf of himself, and FUSE USA.

It is our sincere hope that this certification is adequate for the board, as we find ourselves in a precarious position here of being asked to fully and completely waive contentions that were jointly filed by Sherwood Martinelli for himself as a stakeholder, and for FUSE USA.

Respectfully,

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On behalf FUSE USA, and our members.
12/24/07

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Cover Letter
Superceding Filings of FUSE USA

December 24, 2007

Honorable Chairman Klein
Nuclear Regulatory Commission
Washington, DC 20555

Dear Chairman Klein:

Please find attached to this cover letter a Superceding Formal Request for Hearing, and Petition to Intervene in Entergy's License Renewal Application of Indian Point/Entergy's LRA submitted on behalf of FUSE USA and on behalf of our members who live in Connecticut, New Jersey and New York, and who live within the 50 mile Peak Fatality Zone (PFZ) for this aging, failing reactor that is leaking strontium 90 and tritium into the Hudson River, including our Board of Directors and Advisory Board Members and those who visit the area for work, recreation, or travel. Included in this Superceding filing is an index of our contentions, and our exhibits we intend to use to prove our contentions are sufficient enough to move forward in the process, while reserving the right to bring forth additional exhibits and experts at the appropriate time in the proceeding.

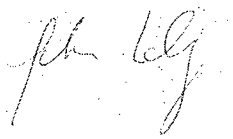
Said filing is being done electronically via an email submission to the NRC, and via the terms of the Certificate of Service attached to this filing. A hard copy original plus two copies with a CD ROM containing our numbered/lettered exhibit documents we intend to use will be sent to the NRC, and all those on the service list via first class mail delivery via UPS. All other parties will be served via first class mail bu same

means of delivery as is required by the regulations, specifically 2.309 with those parties identified in the Certificate of Service.

In closing, FUSE USA would like to express our gratitude and appreciation to Sherwood Martinelli who is currently barred from participation in these proceedings. Without his dedication to the task, his endless hours of research, writing and document preparation, none of this could have occurred. When most of us were tending to our life responsibilities, taking care of our children, working our 9-5 jobs, he was and continues to put in 16-18 hour days in keeping FUSE USA where it needs to be in this battle for our community.

His selfless contributions to FUSE USA, to protecting human health, safety and our environment are to be commended. He may be, in our opinion wrongfully, barred from participation as an affected stakeholder in this proceeding, but he is still fully engaged in the fight to shut down Indian Point, is still the director and leader of FUSE USA, and we are glad he is on our team, and fighting for the rights of the affected citizens living within the 50 mile Peak Fatality Zone for Entergy's aging plants. Hopefully, as this process moves forward, the Atomic Safety and Licensing Board will review their decision, and allow this insightful, brilliant (albeit eccentric) leader back into the process, as FUSE USA is best represented in this hearing process with Sherwood Martinelli at the helm, and actively participating in the hearing process on behalf of the stakeholder community.

Respectfully,



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On behalf FUSE USA, and our members.

Index of FUSE USA Contentions

Contention 1-Entergy with the help and assistance of the NRC, in violation of their own Rules and Regulations, is wrongfully abridging the publics right to adequate availability of information necessary to fully and adequately participate in the License Renewal Process, therein negligently, egregiously and wantonly abridging our First Amendment rights to redress.

Contention 2-NRC Rules and Regulations as relate to the hearing process defacto mitigate and abridge a citizen's right to redress under the law, as is protected under our rights as outlined in the First Amendment. Further, Entergy as a licensee if given far too much sway in dictating to the NRC what is and appropriate time schedule for the process.

Contention 2 A-generic safety concern contention for Entergy's entire application, and approach to ascertaining the fitness of Indian Point for a period of 20 more years of operation.

Contention 3-Fatal flaws, and perhaps egregious misrepresentation of facts as relates to Environmental Qualification of Low-Voltage Instrumentation and Control Cables.

Contention 4-Failure to Adequately Address Known Irradiation-Induced Swelling in the PWR Core Internal Components of the Indian Point Reactors.

Contention 5-Entergy Aging Management Plans for almost all components and systems at both IP2 and IP3 are inadequate, non-existent, or are wrongfully written up as future

commitments that A) are not legally enforceable, and B) have not, cannot and are not being met in a timely fashion.

Contention 6-At least one of Indian Points spent fuel pools is using Boraflex, and in fact and deed has Age Related Degradation issues which in fact and deed are creating potentially significant risk to human health and the environment.

Contention 7- ***Emerging Issues*** *Typically, following a component failure event at a nuclear power plant, the NRC raises a question as to how the failure relates to an applicant whose license renewal application (LRA) is currently under review. This same question may then be asked of subsequent applicants.* There are NUMEROUS emerging issues, that according to the NRC Rules and Regulations we are now entitled to raise in the License Renewal Process. We therefore raise the following issues as contentions in this LRA process.

Contention 8-Entergy has provided NO CABLE MANAGEMENT PLANS, but instead relies upon FUTURE COMMITMENTS, despite the fact that ALL LICENSE RENEWAL APPLICANTS are required to have a Cable Aging Management Plan. It is noted here, that NONE of the already approved superceding licenses for other applicants have Cable Aging Management Plans. Stakeholder quotes from EPRI:

Contention 9-Indian Point wrongfully eliminates from consideration almost all SAMA candidates, primarily based upon a Cost/Benefit Analysis, which uses fuzzy logic,

antiquated population figures, and by placing a low dollar value on PUBLIC EXPOSURE to radiological contaminants.

Contention 10-Increased leakage from primary to secondary aging is not addressed, despite two key facts that would increase the risk to public health and safety:

Contention 11-Both Indian Point 2 LLC and Indian Point 3 have OEM coatings in containments that are not classified as DBA qualified or acceptable. These OEM DBA unqualified coatings in the Indian Point PWR containments will fail during a loss-of-coolant accident (LOCA) and thus be available for transport to the emergency core cooling system's (ECCS's) sump, thus negatively impacting the licensee's ability to have and maintain Safe Shutdown.

Contention 12-In Entergy's Environmental Report, Appendix E to the LRA, Entergy admits that the majority of their plant employees for both IP2 and IP3 reside in Dutchess County, New York. A close study of their employee population distribution tables, shows that a very small handful of Entergy's employees actually live relatively close to the Nuclear Facility, with only 22 living in Buchanan. In the event of a SIGNIFICANT radiological event at the plant such as a SCRAM, LOCA, or DBT or a DBA, especially during a holiday makes it impossible for Entergy to return employees to the facility in a timely fashion, thus greatly impacting their ability to do and maintain a safe shutdown of the plant.

Contention 13-In certain accident scenarios such as an outside Design Basis Accident, or a LOCA (Loss of Coolant Accident), or in the case of widespread blackout off site, Entergy wrongfully places far to much emphasis on outside assistance in dealing with their onsite accident scenario. This reliance on offsite assistance from local police, fire fighting and other first responders in turn GREATLY IMPACTS public health and safety for the citizens living within the EPZ, due to what could become a critical shortage of both manpower and critical equipment that our communities rely upon in maintaining our health and safety.

Contention 14-The LRA, and the UFSAR's for IP2 and IP3 fail to adequately address the currently existing, known and unknown, environmental impacts and affects from the ongoing known and unknown leaks of underground pipes, and fails to lay out a workable aging management plan for said leaks.

Contention 15-Numerous ENVIRONMENTAL and ECONOMIC JUSTICE Issues related to License Renewal need to be addressed in the hearing that directly and or indirectly affect public well being, health and safety.

Contentions 16 through 19-Applicants violation of the Administrative Procedures Act in bypassing the Code of Federal Regulations (CFR) in lieu of trade guidance for defining Indian Point 2's General Design Criteria relevant to current design and more on point relevant to superseding the current operating license with a new operating license to facilitate an extended period of operation:

Contention 20-The License Renewal Application (LRA) fails to provide sufficient detailed information regarding technical, safety and environmental pendant issues.

Contention 21-Co-mingling three dockets, and three DPR licenses under a single application is in violation of C.F.R. Rules, Specifically 10 CFR 54.17 (d) as well as Federal Rules for Civil Procedure rule 11(b).

Contention 22-The NRC violated its own regulations by accepting a single License Renewal Application made by the following parties: Entergy Nuclear Indian Point 2, LLC ("IP2 LLC") Entergy Nuclear Indian Point 3, LLC (" IP3 LLC"), and Entergy Nuclear Operations, LLC. (ENO).

Contention 23-The Decommissioning fund inadequacy and the plan for Entergy to mix funding across Unit 2, 1 and 3 violates commitments not acknowledged in the application and 10 CFR rule 54.3.

Contention 24-Inability to Access Proprietary Documents Impedes Adequate Review of Entergy Application for License Renewal of IP2 LLC and IP3 LLC.

Contention 25-Regulatory Guidance contained in 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope where members of the public have specific and direct substantiated concerns

Contention 26-The LRA, in which Indian Point 2 LLC seeks a new superceding license to replace the existing license, is incomplete and should be dismissed.

Contention 27-The LRA submitted fails to include Final License Renewal Interim Staff Guidance. For example, LR-ISG 2006-03, " Staff guidance for preparing Severe Accident Mitigation Alternatives."

Contention 28-The Updated Final Safety Report fails to meet the requirements of 10 C.F.R.55(a) by deletion of required codes and standards, and obviates the ability for a petitioner to perform a technical review as required under 10 CFR 50.4.

Contention 29-Inability to Access Proprietary Documents Impedes Adequate Review of Entergy Application for License Renewal of IP2 LLC and IP3 LLC (Specifically, in this case the CLB.

Contention 30: Despite best efforts on the part of the Stakeholders, Entergy's claims of entitlement to Proprietary Information, and the NRC's granting of their request for same have created a situation where petitioners are unable and incapable of properly forming and supporting certain contentions we wish to raise.

Contention 31-Safety/Aging Management: Entergy's LRA for Indian Point 2 is insufficient in managing the equipment qualification required by federal rules mandated

after Three Mile Island that are required to mitigate numerous design basis accidents to avoid a reactor core melt and to protect the health and safety of the public .

Contention32-Entergy's License Renewal Application Does Not Include an Adequate Plan to Monitor and Manage Aging of Plant Piping Due to Flow-Accelerated Corrosion During the Period of Extended Operation.

Contention 33-Leak-Before-Break analysis is unreliable for welds associated with high energy line piping containing certain alloys at Indian Point 2.

Contention 34-IP2 LLC's ineffective Quality Assurance Program violates fundamental independence requirements of Appendix B, and its ineffectiveness furthermore triggered significant cross cutting events during the past eight months that also indicate a broken Corrective Action Program.

Contention 35-IP2 LLC's ineffective Quality Assurance Program violates fundamental independence requirements of Appendix B, and its ineffectiveness furthermore triggered significant cross cutting events during the past eight months that also indicate a broken Corrective Action Program.

Contention 36-IP2 LLC's ineffective Quality Assurance Program violates fundamental independence requirements of Appendix B, and its ineffectiveness furthermore triggered

significant cross cutting events during the past eight months that also indicate a broken Corrective Action Program.

Contention 37-(Environmental) The Applicant's LRA does not specify, as required in 10CFR50.65 and 10CFR50.82(a)(1), an Aging Management plan to monitor and maintain all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions.

Contention 38-(Environmental) The LRA, and the UFSAR's for IP2 inadequately address the currently existing, known and unknown, environmental affects and aging degradation issues of ongoing leaks, and fails to lay out workable aging management plans for said leaks and systems imperative for Safe Shut down and cooling of the reactor.

Contention 39- Severe Accident Mitigation Alternatives.

Contention 40-Applicants have failed to meet the mandates of NEPA, of NRC 10CFR 51.53 post construction environmental reports or of NRC 10CFR 51.21 actions requiring environmental assessments in their applications or have deliberately attempted to conceal refurbishment issues and the risks associated there with from the NRC and/or members of the public.

Contention 41-Environmental Effects and Cascading Consequences on the Aging structures, deteriorated conditions and compromised systems, of a Terrorist Attack On Aging Indian Point Nuclear Reactors are not considered in the LRA for IP2.

Contention 42- The License Renewal Application (LRA) fails to provide sufficient detailed information regarding technical, safety and environmental , issues as required by *10 CFR 2.309.*

Contention 43-Co-mingling three dockets, and three DPR licenses under a single application is in violation of C.F.R. Rules, Specifically *10 CFR 54.17 (d)* as well as *Federal Rules for Civil Procedure rule 11(b).*

Contention 44-The NRC violates its own regulations by accepting a single License Renewal Application made by the following parties: Entergy Nuclear Indian Point 2, LLC ("IP2 LLC") Entergy Nuclear Indian Point 3, LLC (" IP3 LLC"), and Entergy Nuclear Operations, LLC. (Entergy Nuclear Operations). NRC further violates its own regulations found in 10 CFR 51 in considering Entergy's recent request to change the holder of record for IP1, IP2 and IP3. Additionally, the NRC is wrongfully allowing Entergy to do one stop filing (IE, filing one set of papers to change ownership status of five SEPARATE licensed reactors) in a fleet like manner, even though each reactor is owned by separate LLC's.

Contention 44 B-The NRC has no statutory authority to require a licensee in bankruptcy to continue making safety-related or decommissioning expenditures or to pay retrospective Price-Anderson Act premiums. Therefore, any transfer of the licenses in the middle of an LRA proceeding brings into scope Entergy's entire corporate structure and complex financial qualification review to continue operating the licenses during the license renewal period of 20 years.

Contention 45-The Decommissioning Trust Fund is woefully inadequate and Entergy's plan to mix funding across Unit 2, 1 and 3 violates commitments not acknowledged in the application and *10 CFR rule 54.3.* (We Specifically Address This to IP3, though wording is similar to other contentions.

Contention 45 B-Since, Cask storage is slated to begin in 2008, and the renewed license for IP2 and IP3 if granted will expire in 2033 and 2035 respectively, it is imperative that the licensee and the NRC deal with the fact that Entergy in their LRA have not provided a full and complete plan to deal with the waste streams generated and stored at the facility, and the issue of dry cask storage units reaching their end lives has to be dealt with before a new superceding license can be granted. Stakeholders herein claim this as a new contention.

Contention 45 C-As a host site, it is imperative that we receive the necessary assurances that Indian Point will not become a permanent waste disposal site for Indian Point's waste streams. Guarantees/commitments written into the new superceding license,

coupled with yearly fines of say $5 million per fuel rod paid to the local community should the 30 year time period be violated, would guarantee a far greater chance of the NRC, DOE and Entergy abiding by the Federal Laws that require said waste streams to be removed and safely stored OFF SITE. Stakeholders again claim this as a additional contention. It is imperative that final disposition of these waste streams be resolved before a new superceding license is granted to Entergy for Indian Point, since many of the spent fuel waste streams should have already been removed from the site as a term of the original license to operate.

Contention 46- Inability to Access Proprietary Documents Impedes Adequate Review of Entergy Application for License Renewal of IP2 LLC and IP3 LLC.

Contention 47-Regulatory Guidance contained in 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope where members of the public have specific and direct substantiated concerns as relate to IP3 specifically.

Contention 48-The LRA, in which Indian Point 3 LLC seeks a new superseding license to replace the existing license, is incomplete and should be dismissed. Instead of presenting required Time Limiting Aging Analysis and an Adequate Aging Management Plan, it seeks to agree to uncertain commitments with regard to the Aging Management of the plant at an uncertain date in the future, thereby causing the license agreement to be voidable by either party, but specifically the Licensee.

Contention 49-The LRA as relates to IP3 that was submitted fails to include Final License Renewal Interim Staff Guidance. For example, LR-ISG 2006-03, " Staff guidance for preparing Severe Accident Mitigation Alternatives."

Contention 50- The Updated Final Safety Analysis Report (UFSAR) for IP3 fails to meet the requirements of 10 C.F.R.55(a) by deletion of certain required codes and standards, and obviates the ability of a petitioner to perform a technical review as required under 10 CFR 50.4.

Contention 51-The Applicant does not have in its possession the Current License Basis (CLB) for Indian Point 3, that is required for license renewal per *CFR 2.390*

Contention 51 A-This may explain the NRC comment that there is no list of exemptions that the Licensee intends to carry over into the new superceding license, and we would like that A) in writing, and if it is put in writing, we would ask the board to note that no exemptions (regardless of the word used to describe them-IE deviation, exceptions and exclusion) from the existing license are to be carried over to, and made a part of the new superceding license. This is a separate sub-contention and request.

Contention 52- Safety/Aging Management: Applicant's LRA for Indian Point 3 LLC is insufficient in managing the environmental equipment qualification required by federal rules mandated after Three Mile Island that are required to mitigate numerous design

basis accidents to avoid a reactor core melt and to protect the health and safety of the public .

Contention 53-Entergy's License Renewal Application Fails to Include an Adequate Plan to Monitor and Manage Aging of IP3 Plant Piping Due to Flow-Accelerated Corrosion During the Period of Extended Operation.

Contention 54- Leak-Before-Break analysis is unreliable for welds associated with high energy line piping containing certain alloys at Indian Point 3.

Contention 55-(Environmental) The Applicant's LRA for IP3 does not specify, as required in *10CFR50.65* and *10CFR50.82(a)(1)*, an Aging Management plan to monitor and maintain all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions.

Contention 56-(Environmental) The LRA, and the UFSAR's for IP 3 inadequately address the currently existing, known and unknown, environmental affects and aging degradation issues of ongoing leaks, and fails to lay out workable aging management plans for said leaks and systems imperative for Safe Shut down and cooling of the reactor.

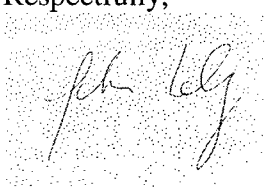
Contention 57-The Applicant has failed in its LRA for IP3 LLC to include as part of the EIS Supplemental Site Specific Report any refurbishment plans in order to meet the mandates of NEPA, of NRC 10CFR 51.53 post construction environmental reports or of NRC 10CFR 51.21.

Contention 58-The radiological discharges, both legal and illegal, known and unknown from Indian Point 3, LLC are causing elevated cancer rates in the 50 mile EPZ which includes portions of Connecticut, New Jersey, and New York. Said elevated cancers are causing premature deaths, painful mastectomies in women who are getting non-hereditary breast cancers, and our children are being struck down with leukemia, as a result of Indian Point 3 LLC operations. The death of just one child in the name of Indian Point License Renewal is unacceptable, elevated cancer rates, especially breast cancer is and unacceptable price to ask any community to pay in the name of "National Interests" and NEI's dearly beloved Nuclear Renaissance.

Certification and Index of FUSE USA Exhibits

As is the requirement of NRC rules and regulations, and by the order of this board, FUSE USA below submits its full and complete list of exhibits, with the following caveat. We are required to submit adequate proof through the use of documents or expert witnesses to show that our contentions have standing, are within scope, and that a material issue of fact or law exists, we are not required at this premature point in the process to PROVE OUR CASE. FUSE USA therefore certifies that the below index of exhibits is full and complete to meet this beginning of the process hurdle, while reserving our rights to submit additional exhibits, evidence and expert witness further along in the hearing process.

Respectfully,



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On behalf FUSE USA, and our members.
12/24/07

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Exhibit 82 Declaration of John Lekay
Exhibit 83 Declaration of Heather DeMelo
Exhibit 84 Declaration of Jackie Jacques
Exhibit 85 Declaration of Bill Thomas

Previously Submitted Exhibits Indexed Here, and Included as documents and exhibits in this Superceding Petition and Request for Hearing. We have kept these documents in their original format and submission form for two reasons:

1. They were originally prepared by Susan Shapiro, and we have done our best to properly create the Index for these necessary exhibits to our contentions, correct and straighten out her document compilation inequities as best as we can in the short window of time we have been given to have our contentions resubmitted.
2. Though we would have liked to fully resubmit them in the numerical order of our first 85 exhibits, we are unable to do so. Though Attorney Susan Shapiro Resigned from the board of FUSE USA on November 7, 2007 and informed the NRC on November 21, 2007, as

of the date of this filing (December 24, 2007) she has failed to return to FUSE USA all documents, records and files in her possession. As a result of this, our only copy of these important exhibits in our possession right now, are a duplicate copy downloaded from the ADAMS web site. Until Susan Shapiro returns the case files, exhibits, records, NRC correspondence and other documents to FUSE USA, we have an incorrect and incomplete record of the hearing process so far. As example, we currently have no copies of any orders, or communications from this board and the NRC that were sent directly to Susan Shapiro, as legal counsel for FUSE USA, thus leaving us to a great extent, IN THE DARK.

Exhibit A Declaration of Susan Shapiro

Exhibit B Declaration of Sherwood Martinelli

Exhibit C Declaration of Julie Gottesman

Exhibit D Declaration of Gary Shaw

Exhibit E Declaration of Andrew Y Stewart, PHD

Exhibit F Declaration of Timothy Englert

Exhibit G Declaration of Jeanne Shaw

Exhibit H Declaration of Robert A. Jones

Exhibit I Letter To Mr. Morris October 15th 1968

Exhibit J Letter from Atomic Safety Forum Oct 2, 1967 With attachments

Exhibit K Historical SER Indian Point 2

Exhibit L Operation Leakage Document (Amendments IP2)

Exhibit M Memorandum to James M. Taylor September 18, 1992
Exhibit N Criterion 43-46

Exhibit O Indian Point License Renewal Presentation by Karl Jacobs

Exhibit P Segments of Reactor Internals Included.

Exhibit Q First Declaration of Ulrich Witte-it is noted here, that said Declaration was executed while Mr. Witte was under the Employment of FUSE USA.

Exhibit R Brian Howard article on Indian Point leaks with attached map showing the leak has to be coming from Fuel Transfer Canal

Exhibit S Entergy July 30th Multiple Reactor Transfer Request with attachments.

Exhibit T
Exhibit U
Exhibit V Financial Insecurity

Exhibit W Corp Watch-Entergy Holds New Orleans for Ransom,

Exhibit X Memorandum to Chairman Diaz

Exhibit Xc1 GAO-04-654entitled 'Nuclear Regulation: NRC's Liability Insurance Requirements for Nuclear Power Plants Owned by Limited Liability Companies' which was released on June 08, 2004.

Exhibit Y March 28, 2005 Entergy Letter

Exhibit Z Entergy Nuclear Operations, Inc., Indian Point Nuclear Generating Unit Nos. 2 and 3; Notice of Acceptance for Docketing of the Application and Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Nos. DPR-26 and DPR-64 for an Additional 20-Year Period. With an attached legal position access to documents.

Exhibit AA GovTrack: H.R. 994: Text of Legislation

Exhibit BB August 14, 2007 - 72 FR 45466-45467 -NUCLEAR REGULATORY COMMISSION -Notice of Availability of the Final License Renewal Interim Staff Guidance LR-ISG-2006-03: Staff Guidance **for** Preparing Severe Accident Mitigation Alternatives, Analyses

Exhibit CC NRC REGULATORY **ISSUE** SUMMARY **2003-09**

Exhibit DD June 29, 2007 Letter from DOE to Sherwood Martinelli

Exhibit EE

Exhibit FF NRC REGULATORY **ISSUE** SUMMARY **2003-09**
ENVIRONMENTAL QUALIFICATION OF LOW-VOLTAGE
INSTRUMENTATION AND CONTROL **CABLES**

Exhibit GG

Exhibit JJ July 31, 2006 Letter

Exhibit KK Indian Point 2 **2Q/2007** Plant Inspection Findings

Exhibit LL Doosan Heavy Industries

Exhibit MM NRC Terrorist Information Documents

Exhibit NN

Exhibit OO OPFOR World Wide Equipment Guide

Exhibit PP **DECLARATION** OF DR. GORDON R. **THOMIPSON**
IN SUPPORT OF PETITIONER'S **AREAS** OF **CONCERN**

We believe this exhibit was supposed to be labeled Exhibit QQ ROBUST STORAGE OF SPENT NUCLEAR FUEL: A Neglected Issue of Homeland Security

Exhibit RR Entergy Management Manual

Indian Point **3**
* Nuclear **2Q/2007** Plant Inspection Findings

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

Superceding Request for Hearing and Petition to Intervene

Amended (Per the Boards Orders) and Superceding
Formal Petition To Intervene
Formal Request for Hearing

In the matter of		
ENTERGY NUCLEAR INDIAN POINT 2, L.L.C	)	**License No. DPR-26**
And Entergy Nuclear Operations, Inc.	)	
Indian Point Energy Center Unit 2	)	**Docket No 50-247**
License Renewal Application	)	
ENTERGY NUCLEAR INDIAN POINT 3, L.L.C	)	**License No. DPR-64**
And Entergy Nuclear Operations, Inc.	)	
Indian Point Energy Center Unit 3	)	**Docket No 50-286**
License Renewal Application	)	

Friends United for Sustainable Energy, USA (referred to hereinafter as FUSE, Stakeholders, Intervenors, or Petitioners), pursuant to 10 CFR § 2.309 (d) and (e), petition to intervene in the proceeding in response to the August 1, 2007 Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Number DPR-64 for an Additional 20-Year Period (72 FR 42134, August 1, 2007) concerning

the Indian Point Energy Center License Renewal application of Entergy Nuclear Indian Point 2 LLC(referred to hereinafter as IP2LLC) Entergy Nuclear Indian Point 3, LLC (referred to hereinafter as IP3 LLC) and Entergy Nuclear Operations, Inc. (referred to hereafter as Entergy Nuclear Operations) and (collectively referred to as the Applicant, or Licensee, or Entergy) to renew its operating license Nos. DPR-26for Indian Point Energy Center Unit 2 IP2 and DPR-64 for Indian Point Energy Center Unit 3 ("IP3"), for twenty years beyond the current expiration date. FUSE also requests a hearing under 10 C.F.R. §2.309(a).

PARTICIPATION AS a MATTER OF RIGHT

FUSE has standing

The standing requirement for Nuclear Regulatory Commission (NRC) adjudicatory proceedings derives from the *Atomic Energy Act (AEA),* which interest may be affected by the proceeding. *42 U.S.C. 2239(a)(1)(A).* FUSE has standing on its own behalf and on behalf of its members. FUSE is a grassroots citizen's activist network. FUSE is a nonpartisan sustainable energy policy think tank, whose purpose is to protect public health and safety. FUSE has members who live within the State of New York, New Jersey and Connecticut and who make their residences, places of occupation and recreation within fifty (50) miles of Indian Point. FUSE's address of service is 351 Dyckman Street, Peekskill, which is within three miles of Indian Point and situated within the Plume Exposure Pathway (EPZ), also referred to as the

"Peak Fatality Zone." The central office of FUSE is located on the second floor of 351 Dyckman Street in the home of FUSE USA Director Sherwood Martinelli, which is located within 3 miles of Indian Point and within the Indian Point "Ingestions Pathway" EPZ, , also referred to as the "Peak Injury" Zone. For the purpose of this amended filing, FUSE USA officers of record will be John LeKay, Heather Ellsworth Burns-DeMelo, Remy Chevalier, Belinda J. Jaques and Bill Thomas, as is witnessed by Notice of Appearance included with this filing and marked as exhibits 76-80, and declarations marked as exhibits 81-85. All communication for purposes of clarity of the record are requested to be in writing, and emailed to fuse_usa@yahoo.com and mailed service to our office of record at 351 Dyckman Street.

FUSE also has numerous members that reside in the Indian Point immediate vicinity and throughout New York, New Jersey and Connecticut, whose concrete and particularized interests will be directly affected by this proceeding.

FUSE has standing on its own behalf

Our offices are located at 351 Dyckman Street in the home of Sherwood Martinelli, and his ownership of real property located within three miles of Indian Point that FUSE USA headquarters are in put our headquarters in Indian Point's peak fatality zone Further, the declarations of Bill Thomas, Remy Chevalier, John LeKay, Belinda Jacques and Heather Ellsworth Burns-DeMelo as members of FUSE, and as citizens living, working, recreating within 50 miles of the Indian Point facility and

based on their close proximity to Indian Point as is witnessed in their declarations have standing, and for the reasons more fully defined, FUSE as an organization has standing. FUSE's headquarters are 351 Dyckman Street, Peekskill, New York. Fuse's offices are within 3 miles of the Indian Point Entergy Center Unit 2 and 3 and are within the "Ingestion Pathway EPZ," known as the "Peak Fatality Zone." FUSE's offices house the organization's records and material archives dating back six years. They also house an extensive technical book collection and FUSE furnishings and equipment. FUSE's offices also provide an operational center for the organization.

FUSE is reasonably concerned that the proposed Indian Point 2 LLC and Indian Point 3, LLC license could increase both the risk and the harmful consequences of an offsite radiological release. Furthermore, FUSE is concerned that the radiological contamination resulting from such a release would impact the value of its property, and interfere with the organization's rightful ability to conduct operations in an uninterrupted and undisturbed manner. Id. Certainly, any evacuation would severely disrupt and damage FUSE operations. Id. FUSE therefore qualifies for intervention pursuant to *10 C.F.R. § 2.309(d).*

FUSE also qualifies for discretionary intervention, *10 CFR § 2.309(e).* FUSE's participation may reasonably be expected to assist in developing a sound record. It is well versed in the field of nuclear energy and safety. FUSE's constituency represents members who have participated in numerous Nuclear Regulatory

Commission proceedings and public meetings. The nature of FUSE's interests is not only its members' (and its own) property interests but the public interest. The Stakeholders representing this filing also represent the 20 million resident Stakeholders within 50 miles of Indian Point.

FUSE can provide local insight that cannot be provided by the Applicant or other procedural parties. FUSE's members are Indian Point neighbors. In addition, as established in this proceeding, this proceeding may have significant affect on FUSE and its members. Its members are Indian Point neighbors. FUSE therefore qualifies for discretionary intervention, *10 CFR § 2.309(e).*

FUSE is entitled to a full adjudicatory hearing with all the rights of discovery and cross-examination provided by *10 CFR Subpart G*, because FUSE has standing, and in the Petition herein to Intervene and Formal Request for Hearing, FUSE raises substantial issues of fact and law that meet the requirements of *10 CFR §2.310 (d).1*

FUSE has Representational Standing

As attested to in the declaration of Remi Chevalier, Heather Ellsworth Burns-DeMelo, Bill Thomas demonstrates that FUSE members reside within the

[1] Although FUSE meets the requirements of 10 CFR §2.310(d) for a full adjudicatory hearing on all contentions it raises, FUSE does not concede the procedures of 10 CFR §2.310 which restrict use of full adjudicatory hearing procedures are lawful and reserves the right to challenge, in an appropriate legal forum, these procedures, as applied to FUSE in this case, should that be necessary to permit FUSE to fully adjudicate the important nuclear safety and environmental issues it raises.

immediate vicinity of Indian Point. FUSE's members live less than fifty miles, and in many cases less than ten miles from Indian Point 3, and are within its Emergency Planning Zone, and subject to radiological contamination, evacuation, loss of property, or other harms in the event of any mishap at the plant. Id. Members also use and enjoy the segment of the Hudson River adjacent to the Indian Point 3 on professional and personal bases. As could be attested to by a member of FUSE USA who is currently barred from participation in this process, but who is still Director of FUSE USA, and thus affected by, and represented by the filings of FUSE USA.

FUSE, an organization, and Heather Ellsworth Burns-DeMelo believe that they and FUSE USA's member interests will not be adequately represented without this action to intervene, and without the opportunity to participate as full parties in this proceeding. If the new superseding license for Indian Point (IP2) and (IP3) is granted without first resolving the Petitioner's safety concerns, this nuclear power installation will operate unsafely and pose an unacceptable risk to the environment and to the health, safety, and welfare of FUSE's members and the Stakeholders who live, recreate, and conduct business within its vicinity.

An organization has standing to sue on behalf of its members when a member would have standing to sue in his or her own right, the interests at issue are germane to the organization's purpose, and participation of the individual is not necessary to the claim or requested relief, though both FUSE USA, and Heather Ellsworth Burns-DeMelo are raising these contentions individually and collectively. *Hunt v.*

Washington State Apple Advertising Commission, 432 U.S. 333, 343 (1977). **As the Commission has applied this standard, an individual demonstrates an interest in a reactor licensing proceeding sufficient to establish standing by showing that his or her residence is within the geographical-area that might be affected by an accidental release of fission products. This "proximity approach" presumes that the elements of standing are satisfied if an individual lives within the zone of possible harm from the source of potential fission product release.**

As is demonstrated by the above discussion and attached declarations, the members represented by FUSE all have standing in their own right. The issues of public health and safety are germane to FUSE's purposes. Also, the individual participation of the members is not necessary to the claims or requested relief. Proximity [to a facility] has always been deemed to be enough to establish the requisite interest to confer standing. The Commission's "rule of thumb" in reactor licensing proceedings is that "persons who reside or frequent the area within a 50-mile radius of the facility" are presumed to have standing. *Sequoyah Fuels Corp., 40 NRC 64, 75 n.22 (1994)*; **See also,** *Duke Energy Corp., 48 NRC 381,385 n.1 (1998).*

FUSE Meets Prudential Standing Requirements

In addition, Courts have created a prudential standing requirement that if a petitioner's interests fall within the "zone of interests" protected by the statute on which the claim is based, *Bennett v. Spear, 520 U.S. 154, 162(1997).* **The Atomic**

Energy Act and NEPA, the statutes at issue here, protect the same interests of protecting public health and safety that are held by FUSE's members, and furthered by FUSE's purpose, held by Sherwood Martinelli, Heather Ellsworth Burns-DeMelo, Bill Thomas and Remy Chevalier, and furthered by Heather Ellsworth Burns-DeMelo appearing on behalf of all FUSE USA members, including Sherwood Martinelli, director of FUSE USA. To avoid problems, it is stated here, that Sherwood Martinelli is NOT representing or moving this filing forward, but as director of FUSE USA, it is impossible at times to avoid the use of his name in this document, as he is, and will continue to be the Director of FUSE USA, is the public voice of FUSE USA, and further, is graciously housing FUSE USA headquarters in his home at no expense to the organization.

FUSE DOES NOT WAIVE ITS RIGHTS TO SUBMIT SUPPLEMENTAL CONTENTIONS AND AMEND THE CONTENTIONS SET FORTH HEREIN, AND TO OTHER PROCEDURAL MATTERS

Right to supplement and amend contentions is not waived. Regardless of the procedural violations of the *Federal Administrative Procedures Act* by the Applicant in submitting the License Renewal Application (LRA) and by the Nuclear Regulatory Commission in not rejecting the LRA, FUSE is submitting a statement of the contentions that reflect the concerns of the Stakeholder community and should be accepted for hearing by the Nuclear Regulatory Commission on behalf of

FUSE's members and broad constituency. The contentions submitted herein should not be deeded to waive FUSE's right to submit further contentions in the future or amend the contentions set forth herein. Further, FUSE reserves its right to submit additional contentions, and amend the contentions set forth herein.

Efficiency of Cross Examination of Expert or Fact Witnesses

The most efficient manner by which statutory rights can be exercised is to allow both depositions and live testimony to the extent the issues are not fully developed during discovery. Although not specifically mentioned in *10 CFR §2.102*, cross-examination of witnesses will be more efficient when possible for FUSE and the Applicant to submit cross-examination outlines five days before the hearing, to alert each witness to the subjects which the parties will explore.

FUSE has the right to seek production of documents, if for no other reason than production of documents will facilitate interrogation of witnesses and narrow the scope of their examination. Otherwise, witnesses will be asked questions about issues which are addressed in documents which either are not present during the interrogation or the analysis of which will require a hiatus in the interrogation.

Relevant documents and cross-examination outlines are hereby requested to be submitted by all parties wherever possible, at least five days in advance such that the witness may be prepared to fully answer the questions posed.

FUSE contends that the Nuclear Regulatory Commission and Applicant have had and will continue to have ex parte communications in violation of the requirements of *Title 5, Part 1 Chapter 5 subchapter 11 § 557*. Ex parte communication by the parties shall adhere in the strictest sense to the requirements of *Title 5, Part I Chapter 5 subchapter II, §557*.

The Stakeholders request that the NRC follows the regulations with regard to ex parte communications with the Applicant as required by *Title 5, Part 1, Chapter 5 subchapter II§557*. The sections that have particular relevance are provided below. In any agency proceeding which is subject to subsection (a) of this section, except to the extent required for the disposition of ex parte matters as authorized by law:

> ***No interested person outside the agency shall make or knowingly cause to be made to any member of the body comprising the agency, administrative law judge, or other employee who is or may reasonably be expected to be involved in the decisional process of the proceeding, an ex parte communication relevant to the merits of the proceeding;***
>
> ***No member of the body comprising the agency, administrative law judge, or other employee who is or may reasonably be expected to be involved in the decisional process of the proceeding, shall make or knowingly cause to be made***

to any interested person outside the agency an ex parte communication relevant to the merits of the proceeding;

A member of the body comprising the agency, administrative law judge, or other employee who is or may reasonably be expected to be involved in the decisional process of such proceeding who receives, or who makes or knowingly causes to be made, a communication prohibited by this subsection shall place on the public record of the proceeding:

All such written communications;

Memoranda stating the substance of all such oral communications; and

All written responses, and memoranda stating the substance of all oral responses, to the materials described in clauses (i) and (ii) of this subparagraph

Upon receipt of a communication knowingly made or knowingly caused to be made by a party in violation of this subsection, the agency, administrative law judge, or other employee presiding at the hearing may, to the extent consistent with the interests of justice and the policy of the underlying statutes, require the party to show cause why his/her claim or interest in the proceeding should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation; and

The prohibitions of this subsection shall apply beginning at such time as the agency may designate, but in no case shall they begin to apply later than the time at which a proceeding is noticed for hearing unless the person responsible for the communication has knowledge that it will be noticed, in which case the prohibitions shall apply beginning at the time of his acquisition of such knowledge.

Therefore the Nuclear Regulatory Commission must abide by these regulations throughout the License Renewal Application proceedings and cease having ex parte communications with the Applicant, with regard to the License Renewal Application.

Amended and Superceding FUSE CONTENTIONS for Indian Point 2, LLC and Indian Point 3, LLC

Applicable Legal Standards to Specific Contentions

Proposed contentions must satisfy six requirements of *10 C.F.R. § 2.309(f)(1)*. This rule is intended to ensure that the "full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions." *Duke Energy Corporation (Oconee Nuclear Station, Units 1, 2*

and 3), 49 N.R.C. 328, 334 (1999) **emphasis added. Sections (1) through (6) below summarize the requirements of § 2.309(f)(1).**

Specifically State the Issue of Law or Fact to be Raised

Section 2.309(f)(i) requires a specific statement of issue of law or fact to be raised or controverted.

Briefly explain the Basis for the Contention

Section 2.309(f)(ii) requires a brief explanation of the contention.

Contentions must be within the scope of the Proceeding

Section 2.309(f)(iii) requires a petitioner to demonstrate that the issue raised in the contention is within the scope of the proceeding.

Contentions Must Raise a Material Issue

Section 2.309(f)(iv) requires "that the issue raised in the contention is material to the findings the Nuclear Regulatory Commission must make to support the action that is involved in the proceeding." Section 2.309(f)(iii) requires the

petitioner to "demonstrate that the issue raised in the contention is within the scope of the proceeding."

Scope of Environmental Review

The scope of the Nuclear Regulatory Commission's environmental review in the context of a license renewal proceeding is defined by 10 CFR Part 51 and by NRC's "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437 (May 1996). Some environmental issues are resolved generically for all plants, and such issues – classified in 10 C.F.R. Part 51, Subpart A, Appendix B as "Category 1" issues – are normally beyond the scope of a license renewal hearing. In the Matter of Florida Power & Light Company (Turkey Point Nuclear Generating Plant, Units 3 and 4), 54 NRC 3,15; 10 CFR § 51.53(c)(3)(i). The remaining issues in Appendix B, which are designated as "Category 2" issues, are issues for which (1) the applicant must make a plant-specific analysis of environmental impacts in its Environmental Report, 10 CRF § 51.53(c)(3)(ii), and (2) the NRC Staff must prepare a supplemental Environmental Impact Statement, 10 CFR § 51.95(c). Contentions concerning Category 2 issues are within the scope of license renewal proceedings. Turkey Point Nuclear Generating Plant, Units 3 and 4, 54 NRC at 11-13.

Scope of Safety/ Aging Management Review

10 CFR 54.4 sets forth the scope of review concerning safety issues in a license renewal proceeding. The safety review "is confined to matters relevant to the extended period of operations requested by the applicant," and focuses on the plant systems, structures, and components "that will require an aging management review for the period of extended operation," or "are subject to an evaluation of time-limited aging analyses." Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1, 2 and 3), 56 NRC 358, 363-64 (2002).

The NRC has emphasized that the level of inspection and testing related to age-management over the extended license term is one of the core issues addressed by the license renewal proceeding:

Part 54 centers the license renewal reviews on the most significant overall safety concern posed by extended reactor operation – the detrimental effects of aging. By its very nature, the aging of materials 'becomes important principally during the period of extended operation beyond the initial 40-year license term,' ... Adverse aging effects can result from metal fatigue, erosion, corrosion . . . and shrinkage. Such age-related degradation can affect a number of reactor and auxiliary systems . . . Indeed, a host of individual components and structures are at issue. See 10 CFR 54.21(a)(1)(i). Left unmitigated, the effects of aging can overstress equipment, unacceptably reduce safety margins,

and lead to the loss of required plant functions, including the capability to otherwise prevent or mitigate the consequences of accidents with a potential for offsite exposures.

Accordingly, Part 54 requires renewal applicants to demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation. Applicants must identify any additional actions, i.e. maintenance, replacement of parts, etc., that will need to be taken to manage adequately the detrimental effects of aging. Adverse aging affects are generally gradual and thus can be detected by programs that ensure sufficient inspections and testing. Turkey Point Nuclear Generating Plant, Units 3 and 4, 54 N.R.C. 3, 7-8 (2001)(internal citations omitted).

Contentions Must be Supported by Facts or Expert Opinions

Section 2.309(f)(v) requires "a concise statement of the alleged facts or expert opinion which support the Petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue." An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality as that is necessary

to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule,10CFR54, F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 10 CFR,54 F.R. 33168, 33171 (Aug. 11, 1989).

Contentions Must Raise A Genuine Dispute Of Material Law Or Fact

Section 2.309(f)(vi) requires that petitioner:

Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioners belief.

All that is needed is "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).

FUSE asserts that the Applicant and the federal regulator made procedural violations of the Administrative Procedures Act, Subchapter II—Administrative Procedures. This resulted in substantive violations of the license renewal application submitted by the Applicant and accepted by the federal regulator.

The Applicant violated federal rule *10 CFR §54.4* when it submitted a single incomplete, inadequate and incorrect License Renewal Application that was in violation of specific regulatory requirements *10 CFR §54.4*, which substantially affected three distinctly different nuclear facilities. Under *10CFR§54.17(d)* "filing of application" an Applicant for a renewed license may submit an application for other kinds of licenses."

Therefore Indian Point 2 LLC, Indian Point 3 LLC and Entergy Nuclear Operations cannot file one application for the same license, nor can one application for three separate companies be filed for two separate licenses.

This rule does not mean, however, that multiple Applicants or licensees can file for a single license.

Each facility affected by this LRA is docketed individually, has distinct DPR numbers, was constructed by different Architect/Engineers under different General Design Criteria, and has different owners for most of each facility's operating history.

Responsive to the *Administrative Procedures Act*, the charter of the Atomic Energy Licensing Board as published in the *Federal Register 37 FR 28,710 (1972)* and the Commissioners regulations contained in *10CFR 2.104, 2.300, 2.303, 3.311, 2.318, and 2.132* may be interpreted to include contested issues in NRC licensing adjudications falling into two generic categories:

(1) safety/technical issues arising under the Atomic Energy Act; and

(2) environmental issues arising under the National Environmental Policy Act (NEPA).

To renew the facility's operating license for an additional 20 years beyond its original 40-year license, the underlying application must include detailed analyses of the potential safety issues and environmental impacts posed by operating the plant for an additional 20 years, and include a FULL LIST of all exemptions to be carried

over into the new Superceding License with justification why said exemption should be carried over. Members of the public, state and local governments and citizen organizations opposing the application can petition to intervene to contest the adequacy of the application's safety and/or environmental analyses.

The process for license renewal is sufficiently procedurally complex, and technically detailed to support regulatory rules for one LRA for each facility. The NRC technical staff (an agency entity entirely separate from the Atomic Safety License Board) conducts a thorough review and analysis of the technical and safety aspects of the application, and subsequently issues a Safety Evaluation Report that describes the staff's review and related findings.

The staff also conducts a similar review on the environmental side, which typically results in the preparation of a full Environmental Impact Statement (EIS). Because major licensing actions generally require an EIS, Licensing Board cases regarding such activities usually have a significant National Environmental Protection Act component in addition to safety issues.

In addition, Intervener Petitions and Requests for Hearings must be reviewed and adjudicated. Therefore by the Applicant co-mingling LRA's for two unique plants, LLCs and licenses, the Applicant further complicates the proceedings, thereby reducing the NRC and the public's ability to conduct comprehensive, focused oversight for each individual facility. Though this added complication of issues

might be workable for the NRC, it is not acceptable to the public, and complicates the LRA process to a point that our rights to full participation in the process are greatly degraded.

Indian Point Unit 1 (Unit 1) is not even cited under the application, however it is substantially affected and affects the operations of Unit 2 and to a lesser degree Unit 3, in spite of it having been shut down for 33 years. This violation creates an avalanche of mixing of safety, technical and environmental issues caused by co-mingling, which introduce substantial additional complexity in the renewal proceedings. By failing to include Indian Point 1 components and systems in the LRA, the Applicant defeats the Stakeholders rights of Intervention and Hearings, promulgated under the Federal Administrative Procedures Act, with regard to the Indian Point 1 components and systems.

This egregious action alone by Entergy forestalls the publics' rights promulgated under the federal Administrative Procedures Act to adjudicate the proper decommissioning and remediation of the Unit 1 site. Further, the proposed license renewal of IP2 would extend the time to decommission IP1 for another 20 years, which was NOT ENVISIONED when IP 1 was granted Safestor Status.

Therefore the NRC must deny the Applicant's LRA as being incomplete, inaccurate, incorrect and inadequately submitted.

Petition to Intervene and Hearing Request

Remy Chevalier, Heather Ellsworth Burns-DeMelo, FUSE USA, and all co-signing interveners to this filing, as is allowed per the NRC Rules and Regulations which are spelled out in 10 CFR 54, as well as other areas of the code (IE 2.309), do herein officially restate and formalize our intentions to be included and involved as stakeholders in the license renewal process as relates to Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC singularly as individuals, and as a group organization, FUSE USA. The Contentions in this separate filing SUPERCEDE any and all other filings. Further, each party to this formal filing does not waive their right to represent themselves and their rights and issues in the judiciary process, as we take exception to the NRC protocol wherein one spokesperson is named for each contention accepted into the process.

Though different groups or individuals may embrace the basic accusations contained in any given contention, they may have differing views on what an acceptable resolution to that contention would be, and the NRC process and protocols wrongfully attempt to mitigate, marginalize and reduce our individual and collective rights to redress as are guaranteed under the Constitution and Bill of Rights, specifically the First Amendment which guarantees that our rights to seek redress cannot and must not be abridged. This filing by FUSE USA does not replace the filings of Sherwood Martinelli that were filed on behalf of himself, and FUSE USA, as it is FUSE USA's understanding that Sherwood Martinelli is planning on appealing the boards decision to remove him, and thus his

contentions from the License Renewal Process to the circuit court. However, said filing now being filed is a Superceding Filing on behalf of FUSE USA.

We are filing this superceding set of contentions as a means by which to abide by the board's criteria, orders and the rules of 10 CFR 2.309 as best as we are capable under this short notice, as none of us, other than Sherwood Martinelli understands the process, nor have we up until now been involved in the creation of the document up until this, the 14th day of December, 2007. We feel it is imperative that FUSE USA's voice be heard in this license renewal process, and are thus submitting this set of contentions per the Board's orders to preserve our organization, and our members position in the process.

first amendment: an overview

The First Amendment of the United States Constitution protects the right to freedom of religion and freedom of expression from government interference. See U.S. Const. amend. I. Freedom of expression consists of the rights to freedom of speech, press, assembly and to petition the government for a redress of grievances, and the implied rights of association and belief. The Supreme Court interprets the extent of the protection afforded to these rights. The First Amendment has been interpreted by the Court as applying to the entire federal government even though it is only expressly applicable to Congress. Furthermore, the Court has interpreted, the due process clause of the Fourteenth Amendment as protecting

the rights in the First Amendment from interference by state governments. See U.S. Const. amend. XIV.

The right to petition the government for a redress of grievances guarantees people the right to ask the government to provide relief for a wrong through the courts (litigation) or other governmental action. *It works with the right of assembly by allowing people to join together and seek change from the government.*

The NRC's practice and protocols of forcing individuals and groups to have one spokesperson acting as the voice and questioner at hearings is, we believe, a deliberate and egregious violation of individual rights of redress, and the rights of redress that we as a community are afforded by the constitution. Furthermore, we argue that the NRC policy, contrary to their own rules and regulations, of automatically granting a licensee, or applicant Proprietary Priviledge, thus keeping documents that the public requires to adequately review, understand and comment on Entergy's License Renewal Application, and as a result of said review submit contentions has amounted to, and continues to abridge our constitutionally guaranteed right to redress.

Justice Brennan, joined by Justice Marshall, followed a significantly different route to the same conclusion. In his view, "the First Amendment . . . has a structural role to play in securing and fostering our republican system of self-government." ***It preserves and protects meaningful control over government through public discussion of its operation, and government therefore is compelled to see to the availability of information that people need to engage in***

that meaningful discussion. *Thus, there is in fact a right of access that arises in the context of situations implicating self-government, including, but not limited to, trials.*

FUSE USA, and all other co-signatories to this Superceding Formal Petition to Intervene, and Superceding Formal Request for Hearing (herein after referred to as stakeholders, intervenors, FUSE) do herein state our contentions as relates to the License Renewal and Hearing process as relates to Entergy's License Renewal Applications Said Contentions are submitted in three secions:

A) Contentions raised against both facilities.

B) Contentions raised specifically against Indian Point 2 (A refiling of the September 19th, 2007 filings that were dismissed by order of this board in November.) with correction of errors, as ordered by this board.

C) Contentions raised specifically against Indian Point 3 (A refiling of the November 9th filing which was a new set of contentions written specifically for Indian Point 3.) with correction of errors, as ordered by this board.

Part A-the contentions as submitted in this section of Petitioner/Stakeholders Formal Request for Hearing, and Petition to intervene spells out contentions that, from stakeholders perspective deal with both facilities. From stakeholder perspective, there exists in this License Renewal Application Process three very distinct and separate groupings of contentions, even if on their face some might appear to be replicative in nature and scope. There are issues specific and germane to Indian Point 2 LLC a separate and unigue NRC Licensee. There are additionally specific

issuses germane to Indian Point 3 LLC, and though those issues, and thus our contentions may on their surface present themselves as similar, even by the untrained eye to be almost identical, they are not. Like Indian Point 2 LLC, Indian Point 3 is a separate and unique NRC Licensee. Because of Entergy's Fleet approach to their nuclear reactors, it is necessary to also raise contentions in a more global way. Part A of this filing presents stakeholders Global Contentions as relates to Entergy Nuclear Operations, and the co-mingled and shared problems created in filing one application for two very specific and unigue license holders and reactors.

Contention 1-Entergy with the help and assistance of the NRC, in violation of their own Rules and Regulations, is wrongfully abridging the publics right to adequate availability of information necessary to fully and adequately participate in the License Renewal Process, therein negligently, egregiously and wantonly abridging our First Amendment rights to redress.

Entergy through deciet, stealth, and wrongful and abusive use of a claim of Proprietary Priviledge has, is, and will continue to keep documents necessary for adequate review and discussion of their License Renewal Application out of the public domain. The purpose and intent of allowing a company to claim a Proprietary Priviledge to certain trade documents, is that having those documents revealed in a public fashion could harm them financially, could provide information to their competitors that would lose them a certain competitive edge.

1. **For a company to be entitled to a Proprietary Priviledge, said document cannot have been widely shared within the industry. (emphasis added)**

2. Even if the first burden is met, the company's desire to keep secret what they consider to be prprietary information **MUST BE (emphasis added)** weighed against the publics right and need to know. If the publics right and need to know out weighs a company's desire to keep a given document secret, the document must be shared, even at the expense of the company's competitive edge.
3. Additionally, for any document that is withheld from public view, wherein the licensee was granted a claim of Proprietary Priviledge, there is supposed to be in its place a summary document of adequate detail, which is lacking in this case, is lacking iin the LRA.

To understand the nature of Propreitary Priviledge as relates to the NRC processes and our public involvement, we first turned to 10 CFR 51 which is the implementing rule for the National Environmental Protection Act (NEPA) from which we herein quote:

§ 51.16 Proprietary information.

(a) Proprietary information, such as trade secrets or privileged or confidential commercial or financial information, will be treated in accordance with the procedures provided in § 2.390 of this chapter.

(b) Any proprietary information which a person seeks to have withheld from public disclosure shall be submitted in accordance with § 2.390 of this chapter. When submitted, the proprietary information should be clearly identified and accompanied by a request, containing detailed reasons and justifications, that the proprietary information be withheld from public disclosure. A non-proprietary

summary describing the general content of the proprietary information should also be provided.

It is apparent here, that even if a document is entitled to some secrecy, falls within the guidelines of being proprietary, that the public is still entitled to a certain level of information and knowledge of that document, as is witnessed by the requirement that the licensee provide a public version and/or summary of said Proprietary document. This NRC regulation also makes it clear, that documents that a licensee wants to claim as trade secrets or privileged or confidential commercial or financial information are not automatically entitled to Proprietary status as is witnessed by the phrase, "...which a person seeks to have withheld from public disclosure..." in 10 CFR 51.16 (b).

Stakeholders frustrated at what we perceive as NRC and Entergy's cat and mouse game of hide the incriminating documents then went to 10 CRF 2.390 to get a better idea on just what our rights were (or what the NRC considers them to be) in regards to gaining access to certain documents necessary to review Entergy's Application.

§ 2.390 Public inspections, exemptions, requests for withholding.

(a) Subject to the provisions of paragraphs (b), (d), (e), and (f) of this section, final NRC records and documents, including but not limited to correspondence to and from the NRC regarding the issuance, denial, amendment, transfer, renewal, modification, suspension, revocation, or violation of a license, permit, order, or standard design approval, or regarding a rulemaking proceeding subject to this

part **shall not, in the absence of an NRC determination of a compelling reason for nondisclosure after a balancing of the interests of the person or agency urging nondisclosure and the public interest in disclosure, be exempt from disclosure** and will be made available for inspection and copying at the NRC Web site, *http://www.nrc.gov*, and/or at the NRC Public Document Room, except for matters that are:

In the very first paragraph of 10 CFR 2.390, the NRC Rules and Regulations make it abundantly clear, that exempting any document from disclosure is not to be taken lightly, and in fact stresses that the person or licensee seeking nondisclosure must present to the NRC, and the NRC must agree that there is a **COMPELLING REASON (emphasis added)** for nondisclosure of the document.

The mere fact that a licensee could lose a competitive edge in making public trade secrets known only to them, is not compelling enough to over ride the publics need to know, especially in the case of a License Renewal Application that, if granted, saddles our community with the risks of the aging Indian Point reactors, IP1 LLC, IP 2 LLC and IP 3 LLC for an additional 20 year period of time. Further, it is pointed out here, that many of the documents Entergy is claiming as Proprietary in nature fail to meet the test...IE, most of the documents are well known, even shared within the nuclear industry, with the most obvious example being the wealth of documents held behind the corporate veil of both EPRI and NEI, but openly shared with NRC, DOE, and almost all nuclear reactor licensees.

(1)(i) Specifically authorized under criteria established by an Executive order to be kept secret in the interest of national defense or foreign policy; and

(ii) Are in fact properly classified under that Executive order;

Other than the DBT, the above section has not been used in making a claim for nondisclosure of documents. Even if it had been, the documents, and a summary of their comments would still need to be made publicly available, and specifically identified so that the public, once identifying the specific document could challenge the legality of the nondisclosure in a court of law as a part of our Constitutional Rights of Redress. What the NRC has done in collusion with the nuclear industry, and specifically in this case with Entergy, is place certain documents in a murky legally undefined area of "need to know" category, but when inquiries are made about identifying those documents so we can challenge their nondisclosure, we are met with noncommittal statements such as "I'll have to check into that, and get back to you" or "I am not authorized to answer that question, and will see if I can have someone get back to you on it". However, there is no NEED TO KNOW exemption provided in NRC Rules and Regulations.

(2) Related solely to the internal personnel rules and practices of the Commission;

(3) Specifically exempted from disclosure by statute (other than 5 U.S.C. 552(b)), but only if that statute requires that the matters be withheld from the public in such a manner as to leave no discretion on the issue, or establishes particular criteria for withholding or refers to particular types or matters to be withheld.

(4) Trade secrets and commercial or financial information obtained from a person and privileged or confidential;

Again, we refer the NRC and this board to 2.390 (a) wherein it makes it abundantly clear, that a licensee wishing it so, does not make it so. They can request that documents can be classified as trade secrets and commercial or financial information obtained from a person and privileged or confidential, but barring a very compelling reason, the NRC must make those documents available for copy and disclosure. Hundreds of documents being used by Entergy to support their LRA, and being used by the NRC to evaluate the LRA are not being shared with members of the stakeholder community, thus making it difficult to adequately support and formulate our contentions.

Unfortunately, in the opinion of FUSE USA Entergy and the NRC in recent history have been acting in direct conflict of the regulatory rules and regulations when it comes to keeping documents outside of the public domain. Instead of weighing the publics right and need to know against their licensee (Entergy) desire for nondisclosure, they have simply been granting said licensees (IP1, IP2 and IP3) a blanket granting of Proprietary Privilege whenever asked for, and in doing so in this specific matter are greatly abridging our individual and community rights to full redress under the law. We in this contention are not asking for a change of the rules and regulations, but asking that they be ENFORCED as written, and that the citizen stakeholder community surrounding Indian Point be given adequate access to full library of documents necessary to review the application, and form our contentions.

(5) Interagency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the Commission;

(6) Personnel and medical files and similar files, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy;

(7) Records or information compiled for law enforcement purposes, but only to the extent that the production of such law enforcement records or information:

(i) Could reasonably be expected to interfere with enforcement proceedings;

(ii) Would deprive a person of a right to a fair trial or an impartial adjudication;

(iii) Could reasonably be expected to constitute an unwarranted invasion of personal privacy;

(iv) Could reasonably be expected to disclose the identity of a confidential source, including a State, local, or foreign agency or authority, or any private institution which furnished information on a confidential basis, and, in the case of a record or information compiled by a criminal law enforcement authority in the course of a criminal investigation, or by an agency conducting a lawful national security intelligence investigation, information furnished by a confidential source;

(v) Would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law; or

(vi) Could reasonably be expected to endanger the life or physical safety of any individual;

(8) Contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions; or

(9) Geological and geophysical information and data, including maps, concerning wells.

This exemption to production of documents completely abridges our individual and collective rights in adequately reviewing Entergy's License Renewal Applications for IP 2 LLC and IP3 LLC. Both known and unknown it is generally agreed upon that the Indian Point site has serious issues regarding the unauthorized leaking of tritium, strontium 90 and other contaminants into the ground waters of the United States, as well as some of these contaminants reaching, and leeching into the Hudson River. As this License Process is unfolding, on a parallel track Entergy is attempting to trace and locate perhaps hundreds of leaks on the site. As a part of this investigation, various and assorted test wells are being sited and drilled. These leaks of radiological contaminants into the environment present a clear and present danger to our community, and our right to know should in fact and deed supercede this section of the 10 CFR 2.309 rules and regulations.

(b) The procedures in this section must be followed by anyone submitting a document to the NRC who seeks to have the document, or a portion of it,

withheld from public disclosure because it contains trade secrets, privileged, or confidential commercial or financial information.

(1) The submitter shall request withholding at the time the document is submitted and shall comply with the document marking and affidavit requirements set forth in this paragraph. The NRC has no obligation to review documents not so marked to determine whether they contain information eligible for withholding under paragraph (a) of this section. Any documents not so marked may be made available to the public at the NRC Web site, *http://www.nrc.gov* or at the NRC Public Document Room.

There are on ADAMS numerous examples where a licensee failed to abide by rule (1) immediately above, only to come in after the fact when they realized they had made and error, but after the document had already been made publicly available. Often, in these cases, the NRC has wrongfully taken two proverbial steps backward, and taken steps to remove the document from public view...you cannot, and should not be allowed a do over.

Along similar lines, is the massive and overly broad sweeping of ADAMS that took place after 9/11. Said wide spread redaction of documents has created and unfair playing field, where certain private parties, and specifically licensees have and unfair advantage in the fact that they have their own full sets of non-redacted historical microfiche files readily at hand. Yet, when affected citizens attempt to view these same historical documents which are a part and parcel of the CLB, the cornerstone of a License Renewal Application, agency review practices, coupled with prohibitive access practices IE, first is a

prohibitive copying fee, and secondly, the only full set of these documents for public review are located at NRC Headquarters...reasonable minds could agree that the average stakeholder does not have the luxury, nor the funds to spend days, weeks or months in Washington, DC hunting and pecking their way through hundreds of thousands of pages of documents searching for incriminating evidence, or proof of serious safety violations at a given nuclear facility.

(i) The submitter shall ensure that the document containing information sought to be withheld is marked as follows:

(A) The top of the first page of the document and the top of each page containing such information must be marked with language substantially similar to: "confidential information submitted under 10 CFR 2.390"; "withhold from public disclosure under 10 CFR 2.390"; or "proprietary" to indicate it contains information the submitter seeks to have withheld.

(B) Each document, or page, as appropriate, containing information sought to be withheld from public disclosure must indicate, adjacent to the information, or at the top if the entire page is affected, the basis (*i.e.*, trade secret, personal privacy, *etc.*) for proposing that the information be withheld from public disclosure under paragraph (a) of this section.

(ii) The Commission may waive the affidavit requirements on request, or on its own initiative, in circumstances the Commission, in its discretion, deems appropriate. Otherwise, except for personal privacy information, which is not

subject to the affidavit requirement, the request for withholding must be accompanied by an affidavit that--

(A) Identifies the document or part sought to be withheld;

(B) Identifies the official position of the person making the affidavit;

(C) Declares the basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a);

(D) Includes a specific statement of the harm that would result if the information sought to be withheld is disclosed to the public; and

(E) Indicates the location(s) in the document of all information sought to be withheld.

(iii) In addition, an affidavit accompanying a withholding request based on paragraph (a)(4) of this section must contain a full statement of the reason for claiming the information should be withheld from public disclosure. This statement must address with specificity the considerations listed in paragraph (b)(4) of this section. In the case of an affidavit submitted by a company, the affidavit shall be executed by an officer or upper-level management official who has been specifically delegated the function of reviewing the information sought to be withheld and authorized to apply for its withholding on behalf of the company. The affidavit shall be executed by the owner of the information, even though the information sought to be withheld is submitted to the Commission by

> another person. The application and affidavit shall be submitted at the time of filing the information sought to be withheld. The information sought to be withheld shall be incorporated, as far as possible, into a separate document. The affiant must designate with appropriate markings information submitted in the affidavit as a trade secret, or confidential or privileged commercial or financial information within the meaning of § 9.17(a)(4) of this chapter, and such information shall be subject to disclosure only in accordance with the provisions of § 9.19 of this chapter.

We again point out, that the above paragraph makes it clear that the licensee or applicant can submit a request for documents to be kept from the public, but there is no guarantee that said request will, or should be granted. Instead, we are again referred back to 10 CFR 2.309 (a) which specifically states there must be a VERY COMPELLING reason to grant proprietary protection and status to a document.

> (2) A person who submits commercial or financial information believed to be privileged or confidential or a trade secret shall be on notice that it is the policy of the Commission to achieve an effective balance between legitimate concerns for protection of competitive positions and the right of the public to be fully apprised as to the basis for and effects of licensing or rulemaking actions, and that it is within the discretion of the Commission to withhold such information from public disclosure.

A cursory review of the NRC record in this regard will show that the scale is completely out of balance, that the overwhelming majority of the time, a licensee or applicant is

simply granted Proprietary Protection of documents by simply asking for it. Sherwood Martinelli, the director of FUSE USA made and inquiry on this very issue and was told by NRC staff, "We do not track that particular statistic." It is imperative that the public know how often a proprietary request is made, and how often it is then granted...only with that statistic can we with any certainty know that there is a fair and equal weighing being done in granting a document proprietary protection.

Though Sherwood Martinelli has been barred for the time being from participating in the License Renewal Process, his efforts in forming FUSE USA contentions has been invaluable, and his guidance as the director of FUSE USA, moving forward will continue to be of value to FUSE USA. We feel it imperative here to point out our belief as and organization, that stakeholder ability to gain unfettered access to crucial documents due to a lack of cooperation has contributed to some of the acrimony in the host community. Though we do not have all of Sherwood Martinelli's documents in this case, we are familiar with these difficulties in gaining access to needed documents, and have seen the document wherein the NRC tried to charge FUSE USA over $22,000 to view certain documents germane to Entergy's LRA.

> (3) The Commission shall determine whether information sought to be withheld from public disclosure under this paragraph:
>
> (i) Is a trade secret or confidential or privileged commercial or financial information; and (ii) If so, should be withheld from public disclosure.

(4) In making the determination required by paragraph (b)(3)(i) of this section, the Commission will consider:

(i) Whether the information has been held in confidence by its owner;

Perhaps the singular section above (i) more than any other supports the stakeholders contention that the NRC and Entergy are abusing the privilege of having documents marked proprietary as they contain trade secrets. It is pointed out, that the majority of the documents kept hidden from public view and review are openly shared within the nuclear industry, among various groups such as the CHUG Group, the BWR and PWR owners groups, so forth and so on. In short, these documents are OPENLY SHARED among various corporations and reactor owners who are COMPETITORS.

(ii) Whether the information is of a type customarily held in confidence by its owner and, except for voluntarily submitted information, whether there is a rational basis therefore;

(iii) Whether the information was transmitted to and received by the Commission in confidence;

(iv) Whether the information is available in public sources;

(v) Whether public disclosure of the information sought to be withheld is likely to cause substantial harm to the competitive position of the owner of the information, taking into account the value of the information to the owner; the amount of effort or money, if any, expended by the owner in developing the information; and the

ease or difficulty with which the information could be properly acquired or duplicated by others.

First, can the entire nuclear industry as a whole claim that openly shared documents and information within the industry is entitled to Proprietary protection? Further, what if a large portion of the costs involved in gleaning that information, conducting the studies and preparing the reports was paid for partially or fully with public tax payer dollars, as is the case in most of the studies conducted by EPRI for which they make a proprietary claim, even though they readily share them within the industry, with DOE, and with the NRC? More importantly, should the Nuclear Industry, or in this specific case Entergy be allowed to keep potential health, safety and environmental risks secret under the guise that such knowledge if known by the public would harm the industry? As a recent example of this, we point to the fact that Entergy is conducting off site environmental studies, but has refused to make the data from that monitoring in our community public under the claim it could be misunderstood, or misinterpreted. Surely, off site environmental monitoring that could show migration of radiological contaminants is something germane to relicensing, and information stakeholders should be allowed to see, read, study, and form contentions around?

(5) If the Commission determines, under paragraph (b)(4) of this section, that the record or document contains trade secrets or privileged or confidential commercial or financial information, the Commission will then determine whether the right of the public to be fully apprised as to the bases for and effects of the proposed action outweighs the demonstrated concern

for protection of a competitive position, and whether the information should be withheld from public disclosure under this paragraph. If the record or document for which withholding is sought is deemed by the Commission to be irrelevant or unnecessary to the performance of its functions, it will be returned to the applicant.

Yet again, we are returned to the public's right and need to know, versus the licensee or applicants desire to keep a secret. A License Renewal Application is a major and significant Federal Action that dictates the road our community will travel down for a period of at least 20 additional years. The NRC and Entergy appear to have taken a position that expediency of the process, licensee convenience and profits out weigh what they consider to be nothing more than public curiosity, or nettlesome troublemakers interfering in their private business matters. This is the public perception. Both Entergy and the NRC are bound by the rules and regulations of 10 CFR 2.390 which make it abundantly clear, that the publics right to know in most cases should out weigh a companies commercial and financial interests.

(6) Withholding from public inspection does not affect the right, if any, of persons properly and directly concerned to inspect the document. Either before a decision of the Commission on the matter of whether the information should be made publicly available or after a decision has been made that the information should be withheld from public disclosure, the Commission may require information claimed to be a trade secret or privileged or confidential commercial or financial information to be subject to inspection under a protective agreement by contractor

> personnel or government officials other than NRC officials, by the presiding officer in a proceeding, and under protective order by the parties to a proceeding. In camera sessions of hearings may be held when the information sought to be withheld is produced or offered in evidence. If the Commission subsequently determines that the information should be disclosed, the information and the transcript of such in camera session will be made publicly available.

The above paragraph goes to a central part of why this contention is being filed. From early on in the process, interveners, and concerned citizens including Sherwood Martinelli and FUSE USA have made gallant efforts to gain access to certain documents which are necessary to adequately review Entergy's Application, form and support our contentions before this board. It is our perspective and belief that Entergy and the NRC have done their best to keep us from seeing anything more than they deem is absolutely necessary. As example, the CLB is like a giant jig saw puzzle. You can get some general ideas about Entergy's LRA for IP2 and IP3 without having all the pieces, but you cannot complete the picture, can not fully raise and support contentions without seeing the entire CLB, yet all requests for same have been met with brush offs, and refusals on the part of the NRC and Entergy.

Without full and complete copies of certain documents, such as a un-redacted version of Chapter Fourteen "Safety Analysis" of the LRA, all versions of the DSAR, FSAR, UFSAR, the DB, DBT, maps, drawings, photographs and inspection reports (including notes and emails) and the CLB, it is virtually impossible for citizen stakeholders to gauge the adequacy of Entergy's proposed Aging Management Programs. If we cannot gauge

the adequacy or lack there of as relates to these Aging Management Programs, we are not being given our full and unabridged rights to redress, not being allowed to raise all contentions that we might need or want to raise in the time allotted.

> (c) The Commission either may grant or deny a request for withholding under this section.

It may be the right of NRC to grant or not grant a request for withholding, but it is not an absolute right, and in fact said right is very narrowly defined by other sections of 10 CFR 2.309. The NRC in fact has been charged with a duty to WEIGH the publics right to know against the requesters desire to keep a secret. Further, that request MUST BE DENIED if the owner of the information has not done due diligence to keep the contents of the document secret, and out of the hands of his/her competitor. Since most of the documents for which Entergy seeks Proprietary Privilege are openly shared with its competitors within the nuclear industry, it fails this basic cornerstone requirement of entitlement to Proprietary Privilege.

> (1) If the request is granted, the Commission will notify the submitter of its determination to withhold the information from public disclosure.
>
> (2) If the Commission denies a request for withholding under this section, it will provide the submitter with a statement of reasons for that determination. This decision will specify the date, which will be a reasonable time thereafter, when the document will be available at the NRC Web site, *http://www.nrc.gov*. The document will not be returned to the submitter.

(3) Whenever a submitter desires to withdraw a document from Commission consideration, it may request return of the document, and the document will be returned unless the information--

(i) Forms part of the basis of an official agency decision, including but not limited to, a rulemaking proceeding or licensing activity;

With emphasis added, stakeholders point out here, that the CLB, which is a cornerstone of the License Renewal process encompasses everything, as in every single document, exemption, variance, deviation, exclusion, inspection report, emails, letters, staff reports, and anything and everything else that has discussed the plant, or changed its operating basis over its entire history from a permit to build, up to and through today. Which means, according to the above criteria, Entergy should not have the right to WITHDRAW any document, as that would wrongfully and perhaps dangerously alter the CLB. In fact, short of withdrawing their application for License Renewal, they by our reading of the rules have no choice but to make available the entire CLB for Indian Point 2 and 3, as same is included in, and referenced to as a PART OF THE APPLICATION, and 10 CFR 54 states quite clearly that stakeholders are entitled to ONE COPY of the entire License Renewal Application, which would include documents referenced to for convenience, as including the reference document could make the application itself overly burdomsome.

(ii) Is contained in a document that was made available to or prepared for an NRC advisory committee;

(iii) Was revealed, or relied upon, in an open Commission meeting held in accordance with 10 CFR part 9, subpart C;

(iv) Has been requested in a Freedom of Information Act request; or

It is stated here, that FUSE USA Director, Sherwood Martinelli knows for a fact, that through the FOIA process, he himself, Susan Shapiro, Ulrich Witte, and FUSE USA have each individually and/or collectively asked for the CLB through appropriate FOIA means, which means every document ever submitted or created for IP1, IP2 and IP3 are subject to a full and complete public review. It is up to us the stakeholders to decide what documents we need to adequately review the LRA of Entergy for IP2 and IP3, as long as that request for documents is reasonable, and the information might likely lead to information that would support a contention we wish to raise. The CLB with all of its exemptions, exceptions, notices of violations, and other changes would provide us with the adequate information needed to raise additional contentions, and support the ones we are raising here.

(v) Has been obtained during the course of an investigation conducted by the NRC Office of Investigations.

(d) The following information is considered commercial or financial information within the meaning of § 9.17(a)(4) of this chapter and is subject to disclosure only in accordance with the provisions of § 9.19 of this chapter.

(1) Correspondence and reports to or from the NRC which contain information or records concerning a licensee's or applicant's physical protection, classified matter

protection, or material control and accounting program for special nuclear material not otherwise designated as Safeguards Information or classified as National Security Information or Restricted Data.

(2) Information submitted in confidence to the Commission by a foreign source.

(e) Submitting information to NRC for consideration in connection with NRC licensing or regulatory activities shall be deemed to constitute authority for the NRC to reproduce and distribute sufficient copies to carry out the Commission's official responsibilities.

Again, Entergy's License Renewal Application is a licensing activity, and the CLB is embraced as if fully rewritten therein as a part of the License Renewal Application. So there is no conflict in determining the scope and definition of the term CLB, we paste here the NRC definition of it, as well as one section of 10 CFR 54.33. which leaves no doubt as to the importance of a complete and accurate CLB.

> *Current licensing basis* (CLB) is the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 52, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical

specifications. It also includes the plant-specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.

§ 54.33 Continuation of CLB and conditions of renewed license.

(d) The licensing basis for the renewed license includes the CLB, as defined in § 54.3(a); the inclusion in the licensing basis of matters such as licensee commitments does not change the legal status of those matters unless specifically so ordered pursuant to paragraphs (b) or (c) of this section.

A review of the NRC definition supports the stakeholder contention that failure to provide the public with a full and accurate copy of the CLB fully and completely marginalizes, interferes with and abridges our right to redress under the law. A cursory review of this definition makes it abundantly clear that stakeholders cannot adequately weigh the proposed aging management programs in Entergy's License Renewal Application without first knowing with specificity what is inside the CLB. Already existing orders, license conditions, exemptions, exceptions, generic letters, commitments, as examples are all key items that can affect and define the adequacy, or lack there of as relates to every single proposed Aging Management Program discussed in Entergy's

License Renewal Application. We briefly here bring up 10 CFR 54.13 as it is germane to this subject, and Entergy's duty and responsibility to be capable of producing for public review a full and complete CLB as defined by the NRC definition.

> **§ 54.13 Completeness and accuracy of information.**
>
> (a) Information provided to the Commission by an applicant for a renewed license or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant **must be complete and accurate in all material respects.**

There is no doubt, no discussion on the fact that Entergy and the NRC should have available a true and accurate record of the CLB. Unfortunately, a GAO report on this very issue came to the conclusion that neither the licensee or the NRC have the ability to know what is in the CLB, let alone possess the ability to produce same for public review and discussion, which as the host community being asked to accept Entergy as a neighbor for 20 more years is our right to do. Additionally, we draw the boards attention to 10 CFR 54.19.

> **§ 54.19 Contents of application--general information.**
>
> (a) Each application must provide the information specified in 10 CFR 50.33(a) through (e), (h), and (i). **Alternatively, the application may incorporate by reference other documents that provide the information required by this section.**

(b) Each application must include conforming changes to the standard indemnity agreement, 10 CFR 140.92, Appendix B, to account for the expiration term of the proposed renewed license.

A standard shorthand in various and assorted legal documents is to fully and completely incorporate other documents into other documents, in this case Entergy's License Renewal Applications for IP 2 LLC and IP 3 LLC, by reference, as if fully rewritten therein. Basically, such inclusion by reference makes them a FULL AND COMPLETE part of the document being reviewed. It is pointed out here, that the NRC has and obligation to make a full and complete copy of the application available to stakeholders. To fulfill that obligation, they MUST include as a part of that true and accurate copy all documents referenced as if they had been fully written out in said document, or in lieu of that, point citizens in the direction the documents can be found...without identifying the documents by name, ADAMS NUMBER, and telling us where they can be found, with identifying markers for finding them, they fail in this basic task. Further, refusing to provide certain documents under the guise they are a part of the Public Document Room collection is also playing games, and defeating the basic purpose of the FOIA process.

(f) The presiding officer, if any, or the Commission may, with reference to the NRC records and documents made available pursuant to this section, issue orders consistent with the provisions of this section and § 2.705 (c)

This contention succinctly defines itself, alleges that Entergy and the NRC are not giving us adequate and fair access to the documents necessary to fully and completely review and discuss Entergy's License Renewal Application, and the adequacy of their proposed

Aging Management and Safety Plans. Further, this inability to gain full and complete access to these necessary documents is greatly inhibiting our ability to raise and defend our contentions in and adequate fashion, therefore defacto abridging our first amendment right to redress.

It is therefore requested that this board grant a full and complete continuance of all matters relating to Entergy's License Renewal Application until such time as citizens concerns as relates to document access have been fully and completely adjudicated to the fullest extent of the law. It is further moved by stakeholders, that this board as is within its right, keep the public's time to submit Petitions to Intervene and Requests For Hearing open until A) all documents which we are entitled to, and which have been requested through FOIA and other efforts have been made available to the public for review and discussion, and B) we are given adequate time after production of said documents (based upon the volume of information we will need to disseminate) and adequate window of opportunity to revise our current contentions or add new ones based upon the newly available sources of information. Lastly, as a part of this contention, we ask that the board order both Entergy and the NRC to provide copies of all communications between Entergy and the NRC, all documents generated on IP1, IP2 and IP3 during the duration of these hearings, as each of those documents has a bearing on our contentions, and could bring up new information that we are entitled to respond to.

<u>Contention 2-NRC Rules and Regulations as relate to the hearing process defacto mitigate and abridge a citizen's right to redress under the law, as is protected under our</u>

rights as outlined in the First Amendment. Further, Entergy as a licensee if given far too much sway in dictating to the NRC what is and appropriate time schedule for the process.

Except in the case of a Class Action suit, all parties to a legal proceeding, or court action have the right to be represented by counsel of their choice, including if one so chooses to proceed Pro Se, acting as counsel on their own behalf. We have the right to participate in the discovery process, be included on the service list, conduct interrogatories, depositions within the guidance of the rules, and exercise our basic right of redress under the law.

It would be frivolous, and overly burdensome if all co-signers to a given Petition To Intervene and Formal Request for Hearing were to flood the NRC document intake staff with say 100 almost identical filings, so that each person could preserve their individual rights to be a party representing their own concerns at the hearing, participating in the process. So, as is often the case, most grassroots organizations and interested parties encourage others to co-sign onto one co-owned set of contentions, rather than making duplicative filings that serve no purpose other than flooding the boards docketing department, except for one small reality.

If those 100 concerned citizens, stakeholders each and everyone co-sign one document for the sake of expediency and conservation of limited resources, the NRC instantly and wrongfully attempts to abridge their rights to redress under the law by demanding that they as a group select one person to represent the wishes and concerns of everyone.

§ 2.1404 Prehearing conference.

(3) If two or more requestors/petitioners seek to co-sponsor a contention, the requestors/petitioners shall jointly designate a representative who shall have the authority to act for the requestors/petitioners with respect to that contention. If a requestor/petitioner seeks to adopt the contention of another sponsoring requestor/petitioner, the requestor/petitioner who seeks to adopt the contention must either agree that the sponsoring requestor/petitioner shall act as the representative with respect to that contention, or jointly designate with the sponsoring requestor/petitioner a representative who shall have the authority to act for the requestors/petitioners with respect to that contention.

It is arbitrary and capricious for the NRC, and their staff hearing board to assume that 100 people submitting identical or similar contentions have the same agenda or goals when it comes to a resolution of their concerns related to said contention. As example, if you talk to various members of FUSE USA, Riverkeeper, Clearwater and IPSEC, you will find a wide range of views concerning Entergy's Indian Point, and what should be done about their License Renewal Application.

Some want the plant shut down, sooner rather than later. Others want the plants to complete their current period of operation (2013 and 2015 respectively) and then be decommissioned, while others still would favor continued operation, but only if the spent fuel wastes were removed from the site and taken to a long term spent fuel repository such as Yucca Mountain. With these divergent and differing viewpoints, it would be all

but impossible to find consensus on a satisfactory approach to litigation, or to resolution, even though all of those 100 co-signers agree on the basic contention itself. (IE-The inadequacy of IP2 LLC and IP3 LLC's Aging Management Program as relates to Flow Accelerated Corrosion (FAC), and Internal Reactor Core Cooling System Corrosion as a result of Environmental Chemistry.)

Further, the Rules and Regulations as relates to NRC hearings and the timing of various events (scheduling calendar) is biased and prejudice against stakeholder citizens who desire to represent their own interests in the proceedings Pro Se as it were, in most cases not so much by choice but out of necessity, as they simply cannot afford the costs of having their interests represented by legal counsel...which makes this contention one involving Environmental Justice Issues, as well as issues regarding our First Amendment Right to seek redress. Perhaps, if FUSE USA had the financial ability to be represented by adequate counsel, some of the disharmony associated with our filings could have been avoided.

NRC Rules and Regulations regarding hearings are A) quite complex in nature, and B) designed to expedite matters in a expedient fashion that keeps intact NRC time constraints and scheduling calendars. Unfortunately, the complex rules, coupled with the very real fact that most stakeholders cannot afford legal representation creates a situation where host communities are at a grave disadvantage in protecting human health and the environment. Simply stated, the system is designed to disadvantage and discourage pro se stakeholders, perhaps sets them up in such a fashion as to make their failure in the process a forgone conclusion. If the rules and regulations are so cumbersome and

complicated that we as a group, and as stakeholders cannot fully grasp and abide by them without legal representation, are rights can be lost, our just claims dismissed on technicalities, and because we failed to dot an I or cross a T. To illustrate this point, let us examine more closely 10 CFR 2.332 of the NRC Rules and Regulations.

§ 2.332 General case scheduling and management.

(a) *Scheduling order.* The presiding officer shall, as soon as practicable after consulting with the parties by a scheduling conference, telephone, mail, or other suitable means, enter a scheduling order that establishes limits for the time to file motions, conclude discovery, commence the oral phase of the hearing (if applicable), and take other actions in the proceeding. The scheduling order may also include:

Entergy has a $40 Million dollar budget for legal fees in this License Renewal Application. Further, not counting outside legal counsel, they have a dedicated 20 person staff working on the LRA for each of the two Indian Point Reactors. The lead law firm representing Entergy's interests in this License Renewal Process have access to hundreds of staff to see that they can efficiently and judiciously go about meeting the requirements of a very narrow and constricted scheduled. Without arguing the fairness of Entergy's assets in supporting their LRA, it is obvious that a small grassroots organization with no budget, and no attorney needs, and deserves more time in which to meet the various obligations of being a party to the LRA process.

(1) Modifications of the times for disclosures under §§ 2.336 and 2.704 and of the extent of discovery to be permitted;

(2) The date or dates for prehearing conferences; and

(3) Any other matters appropriate in the circumstances of the proceeding.

(b) *Model milestones.* In developing the scheduling order under paragraph (a) of this section, the presiding officer shall utilize the applicable model milestones in Appendix B to this part as a starting point. The presiding officer shall make appropriate modifications based upon all relevant information, including but not limited to, the number of contentions admitted, the complexity of the issues presented, relevant considerations which a party may bring to the attention of the presiding officer, the NRC staff's schedule for completion of its safety and environmental evaluations (paragraph (e) of this section), **and the NRC's interest in providing a fair and expeditious resolution of the issues sought to be adjudicated by the parties in the proceeding.**

Fair and expeditious in the case of a License Renewal Application are mutually exclusive by fact and deed. First and foremost, Entergy and the NRC (as they will more than likely be a party to at least some of the contentions in this hearing process) already have a huge advantage over stakeholders by the mere virtue of their knowledge of, and employment in the nuclear industry. Secondly, they can mobilize massive staffs, and have endless streams of cash flow to support their effortsWe supply Entergy their funds through both

our taxes, and through the rates we pay for our metered electricity uses. It is the same for the NRC who collects fees from their license.

Entergy has a further leg up on those seeking to intervene, in that the NRC recommends that their licensees start preparing their applications at least two years before submittal to the NRC. Once said application is received by the NRC, and before citizens are allowed to view same, the NRC reviews the license application for completeness. Further, the NRC allows said licensee to be deliberately vague coming into the process, then allows them to rework the document on a on-going basis throughout the License Renewal Process through Amendments, and formal requests for more information sent from NRC staff As example, it is pointed out that Entergy's License Renewal Application falsely claims there are no refurbishment issues, even though they have two reactor vessel heads on order with delivery slated for 2011 and 2012 respectively. This should have been reason enough to dismiss the application as incomplete in our opinion. but If we the stakeholders fail to find certain important omissions and problems, do not bring up key critical Safety and Aging Management issues, the NRC will simply give the licensee a FREE PASS under the guise they can deal with it later after the new superceding license has been granted.

Lastly, we believe the schedule out of the gate is unrealistically built to set stakeholders up for defeat, set up to make License Renewal a foregone conclusion. It is a very rare victory that the stakeholders in this License Renewal process received a 60 extension of time to prepare and submit our contentions, but it is still not enough when compared to the over two years taken by Entergy to prepare their LRA. This board, and the rules

which govern it speak of a parties responsibility to do due diligence in meeting the boards scheduling calendar. That calendar should be set in a way that it is FAIR AND EQUITABLE to all parties, and specifically citizen stakeholders. Our rights should not be abridged and mitigated because we A) are not expert in the field of nuclear power, or B) do not have the financial ability to COMPETE IN THE PROCESS.

As the original crafter of this contention for FUSE USA, as a stakeholder who is currently barred from participation, Sherwood Martinelli spent literally thousands of hours in the past five months in trying to be prepared, in trying to adequately support and submit contentions to the NRC. Entergy's application is almost 1,700 pages in length. Thirty-Two industry studies (EPRI Documents) that were FOIA'ed from the DOE total over 6,000 pages. All of these documents had to be read, highlighted, and notes taken for future use. FUSE USA volunteers, including Sherwood Martinelli have read three different versions of the USFAR's for Indian Point 1, 2 and 3, numerous SER's and the original applications for license of the facilities. Add thousands of pages of reading to the list. It is unrealistic to think community stakeholders can go through this kind of a volume of materials, and compose our contentions in the window of time allotted by the NRC. If it takes Entergy some two years to prepare their application for submission, it is unrealistic to think that affected stakeholders in the host community can adequately review the application, and submit their contentions in the time allotted for same.

After months of what FUSE USA considers egregious interference and deliberate delay, NRC staff finally A) denied one FOIA right out and in regards to another provided FUSE USA none of the documents we requested, but 1,000's of ADAMS ML numbers, and a

list several hundred strong of historical documents that we would have to arrange access to through the PDR, who informed us it could take several months to track down and provide us, at a fee of 30 cents a page! (That fee may seem reasonable until you multiply it times say 10-15,000 pages of documents-as example, in regards to one FUSE FOIA, even though it is clear we are entitled to a waiver of fees, NRC staff sent a letter telling Sherwood Martinelli, our director it would cost $22,000 dollars to gain access to said documents, a fee our small public interest group cannot afford.)

Continuing our efforts to do due diligence to show respect for the NRC time schedule, FUSE USA volunteers, including Sherwood Martinelli stayed up into the WEE HOURS of the morning day in and day out searching out documents on the internet, on ADAMS, on the DOE site, and through various and assorted other internet portals. In all, we have down loaded some 20 plus GIGS of information and documents that relate directly and indirectly to Entergy's License Renewal Application. Yet still, with all this effort towards due diligence, there remain huge gaps in our ability to comprehend and intelligently decipher Indian Point 2 LLC and Indian Point 3 LLC's application, and the Aging Management plans therein because of our inability to gain access to crucial NRC and Entergy documents on IP2 and IP3.. Perhaps if FUSE USA and other stakeholders were given the same two years to review and discuss Entergy's application that Entergy had to prepare it, we would be close to being able to form and defend our contentions in a fair and equitable fashion.

Entergy's biggest advantage is not their money; it is not their large staffs, though both certainly help, but appears to be A) NRC refusal to give us, average citizens,

stakeholders living in the Peak Fatality Zone (PFZ) the time we deserve to adequately defend our contentions, and B) NRC and Entergy's refusal to give us fair and TIMELY access to necessary documents.

(1) Whether the requesting party has exercised due diligence to adhere to the schedule;

As has been illustrated above, due diligence has been done, and continues to be done as we sit at our keyboards working to meet NRC guidelines, and the Atomic Safety and Licensing Board's orders, and a Christmas Eve filing deadline without full use and access of our organization's best asset, Sherwood Martinelli who has, at least temporarily been barred from participation in the LRA process for Indian Point.

(2) Whether the requested change is the result of unavoidable circumstances; and

FUSE USA believes that unavoidable circumstance should include NRC and licensee protocols that inhibit/interfere with our ability to have timely access to necessary documents. Entergy did not have ready and at hand certain CLB documents this past September, so the NRC walked out of a scheduled inspection, even though they were already there at the Indian Point facility, and gave Entergy and extension of time to reschedule said inspection. Now, some two months later said inspection has yet to be rescheduled. Entergy has twice been granted extensions to properly install their new Emergency Siren system. Very soon, the installation completion will be TWO YEARS past due. Surely, if certain CLB documents were not available for a scheduled NRC inspection, they are currently not available to FUSE USA and other stakeholders in a

timely enough fashion to meet NRC and the Atomic Safety and Licensing Board's schedule?

The trend here is easy to spot...Licensee extension of time to be in compliance with NRC Rules and Regulations meant to protect human health and safety is a good thing, but average citizen stakeholders being forced to live with the health and safety risks asking for a realistic hearing schedule that might delay NRC and their desired wish of expediting the process is a bad thing.

(3) Whether the other parties have agreed to the change and the overall effect of the change on the schedule of the case.

(c) Objectives of scheduling order. The scheduling order must have as its objectives proper case management purposes such as:

(1) Expediting the disposition of the proceeding;

Why is this a purpose, and who does it benefit, other than the licensee? The only singular goal the NRC really has, or is supposed to have, is protection of Human Health, Safety and the Environment, and that should not be negatively impacted by a desire to stay on schedule, to expedite the proceeding. Should a need for speed supercede a host community's opportunity to adequately defend and present their contentions? Should commitments replace Aging Management Programs because it expedites the process, keeps the NRC, and the Atomic Safety and Licensing Board on schedule?

(2) Establishing early and continuing control so that the proceeding will not be protracted because of lack of management;

Again, NRC seems to approach case management not from a perspective of adequate regulatory control aimed at protecting human health, safety and the environment, but instead seems to place more importance on adherence to their schedule, and the time they have allotted for this particular task. Sherwood Martinelli, director of FUSE USA filed a FOIA with the DOE back in April of this year to gain access to certain NEPO documents that are necessary in reviewing the application, on behalf of FUSE USA. He received the last 14 documents on November 9, 2007. Due to National Security rules that make it necessary to review certain documents, coupled with further reviews necessitated by FUSE USA's desire to see proprietary documents (even though paid for with our tax dollars), it took almost seven months for the government to put those documents into our hands...is case management flexible enough to grant us adequate time to now review these documents, and figure out how they change certain perceptions about some of IP2 and IP3 aging management plans, and should we be denied use of certain evidence because the government itself is incapable, due to security issues resulting from 9/11, of providing documents to us in what the NRC and their schedule considers a timely fashion? If one agencies protocols are slowing down FUSE USA's efforts at responding in a timely fashion, should we be penalized by another agency of the same Federal Government? Full review of these documents is opening up new areas of information to FUSE USA, leading us to consider new contentions, contentions which current time constraints keep us from rising.

(3) Discouraging wasteful prehearing activities;

Could the hearing board please illuminate their definition of wasteful pre-hearing activities? Would for instance fighting for our legal rights to redress be considered frivolous and useless waste of the boards pre-hearing time? Is waiting months for the successful conclusion of a timely filed FOIA request a waste of time, and if so, who should be penalized for that unavoidable delay? If you look at the November 9th receipt of DOE documents, and grant stakeholders 60 days to file contentions from the receipt of those specific documents, the comment period would have remained open until January of 2008, and rightfully more than likely should have, and in fact and deed, FUSE USA filed a formal request through Sherwood Martinelli requesting a 60 day extension of time to file from the date we received the DOE documents. Said extension was only granted in part, rather than in full, thus denying FUSE USA 39 days of preparation time.

(4) Improving the quality of the hearing through more thorough preparation; and

It is the contention and position of stakeholders, that we could contribute to the over quality of the hearing if we were given adequate time to complete said "more thorough preparation". Stakeholders do not have the funding, staff and expertise readily available to us that Entergy, and the NRC have. What a knowledgeable attorney or expert in the nuclear industry can understand in say a week, could take the average stakeholder a month to understand...should a stakeholders lack of expertise in all issues nuclear coupled with lack of financial funding make it right for this board to prejudice their ability to fully participate in the process in a meaningful manner? It is the position of FUSE USA, that our lack of knowledge (verse intellect) and money should not be used

against us, it is the belief of FUSE USA that community stakeholders should be given adequate time to wade through the documents, decipher and understand them, and as laymen, such understanding will take longer than the amount of time the NRC and the Atomic Safety and Licensing Board have currently allotted us.

> (5) Facilitating the settlement of the proceeding or any portions thereof, including the use of Alternative Dispute Resolution, when and if the presiding officer, upon consultation with the parties, determines that these types of efforts should be pursued.

It is the belief of FUSE USA, that Alternative Dispute Resolution is nothing more than a means of exchanging contentions for some future worthless commitment on the part of the licensee...we refer the board to the NRC definition on commitments wherein it is stated, that **commitments amount to nothing more than a licensees non-enforceable promise to do something at a later date.** IE, in the original SER and License application for Indian Point 2, our community was promised 80 of the 235 acres at Indian Point were to be converted into a beautiful woodland park with walking paths, and we were additionally promised that the reactor would go to a Closed Cooling system by 1979. Those commitments some 30 years later have not been fulfilled by the licensee.

> (d) Effect of NRC staff's schedule on scheduling order. In establishing a schedule, the presiding officer shall take into consideration the NRC staff's projected schedule for completion of its safety and environmental evaluations to ensure that the hearing schedule does not adversely impact the staff's ability to complete its reviews in a timely manner. Hearings on safety issues may be commenced before

publication of the NRC staff's safety evaluation upon a finding by the presiding officer that commencing the hearings at that time would expedite the proceeding. Where an environmental impact statement (EIS) is involved, hearings on environmental issues addressed in the EIS may not commence before the issuance of the final EIS. In addition, discovery against the NRC staff on safety or environmental issues, respectively, should be suspended until the staff has issued the SER or EIS, unless the presiding officer finds that the commencement of discovery against the NRC staff (as otherwise permitted by the provisions of this part) before the publication of the pertinent document will not adversely affect completion of the document and will expedite the hearing.

With all due respect to the hearing board, it is the position of FUSE USA that the SER in the License Renewal process contains the licensee's commitments that are being agreed to should a new superceding license be granted, and any hearings held before those commitments are fully known is premature in the LRA for IP2 and IP3. Already, the nuclear industry, NEI and Entergy are having problems meeting certain of those commitments, and FUSE USA has seen an EPRI document wherein it is suggested that many of those granted License Renewal A) are not going to be able to meet those commitments, and B) they should consider submitting requests to the NRC for exemptions from some of those commitments. It would therefore greatly abridge our rights of redress, and be unfair to expect us to participate in a hearing on Safety Issues until after the SER has been published, distributed, and we have had a time to weigh its adequacy, or lack thereof, basing our positions on the ability of past License Renewal Applicants ability to meet identical or similar commitments in a timely fashion.

This contention is succinctly articulated, and lays out a case that the judiciary process and calendar for Entergy's License Renewal Application is biased and prejudiced against average citizen stakeholders, and pro se participants in the process, thus raising serious environmental and economic justice claims. Further, it shows that the Nuclear Industry, and specifically Entergy who owns over 1/10th of America's aging reactors has been given far too much sway in establishing a procedural schedule which benefits them at the expense of the stakeholder community.

We feel it only fair that these inequities be resolved, and that the proposed scheduling be reworked in such a fashion that it is not biased against the stakeholder community. Further, since the hearing board is made up of NRC employees, and the NRC is going to be a party to the hearing, **we contend that there exists a conflict of interest**. This allegation is further born out by the readily deduced fact that many of the documents relied upon by Entergy in supporting their aging management plans were jointly collaborated on by NEI, EPRI, DOE and the NRC, and additionally, in some cases jointly funded by the NRC and the nuclear industry, and that members of this board played some part in the creation and acceptance of some of the criteria found in those documents. No board member is going to vote against a criteria that he/she played a part in creating, and that is just commonsense, a reality of human nature.

We are therefore requesting a change of venue, and ask that this case be heard by the IAEA or in the World Court. Further, we ask that this hearing board seek guidance from the IAEA and the United Nations before deciding and ruling on this request, and as is allowed, we would further request that the IAEA seek their guidance in this matter from

the world court. We further would ask that the NRC and the Atomic Energy and Licensing Board consider ordering Entergy to pay for the legal and professional fees of FUSE USA, which in turn would allow our organization, and the stakeholders we represent to be equitably and fairly represented in the proceeding, which is only fair, since it is stakeholders as citizen rate payers who are paying Entergy's legal and expert fees, and we ask that all scheduling be done in such a fashion as to realistically set deadlines that factor in the fact that not all stakeholders are nuclear experts, that not all stakeholders have staffs, and that not all stakeholders have the ability to work all day every day on these important issues. Lastly as a part of this contention, we ask that the time to submit contentions be reopened, and remain open until such time as all document disputes have been resolved, and citizen stakeholders have had adequate time to review said additional information, and form contentions using same and that no safety hearings are held until after acceptance of the SER in its final format.

ARTICLE X

International Court of Justice

1. The United Nations will take the necessary action to enable the General Conference or the Board of Governors of the Agency to seek an advisory opinion of the International Court of Justice on any legal question arising within the scope of the activities of the Agency, other than a question concerning the mutual relationships of the Agency and the United Nations or the specialized agencies.

2. The Agency agrees, subject to such arrangements as it may make for the safeguarding of confidential information, to furnish any information which may be requested by the International Court of Justice in accordance with the Statute of that Court.

Formal Request for Hearing on Entergy's License Renewal Application

As a part of this filing, FUSE USA and the co-signing interveners to this document do herein request a hearing. We reiterate this formal request, as our filings invariably have at least a few differing signatories joining in, and we feel it important that no one gets cut out of the process, is denied their rights to be a part of the process due to a technicality.

FUSE USA and all those who are co-signing on to this document live, work, play, recreate or travel through the 50 mile radius Peak Fatality Zone (PFZ), and so attest by signing onto this filing.

Further, in support of our position that we have standing, we fully embrace and adopt as if fully rewritten herein all previous FUSE USA arguments and declarations on standing contained in other pending filings before this board that have been submitted by Sherwood Martinelli or Susan Shapiro on behalf of FUSE USA and its members.

Additional Environmental, Safety, Degradation, Corrosion, Fatigue, and Other Reactor Failure Mechanism Contentions of FUSE USA and Citizen Stakeholders of The Affected Host Community.

First, the stakeholders herein disagree with the basic approach of appraising the suitability of a reactor for License Renewal and consideration of a new superceding license that dissects and evaluates the various safety, fatigue, corrosion, aging, radiological bombardment and performance issues singular evaluation and failure parameters, while all but ignoring the total composite of the entire facility as a whole, fails to consider how well supposed safety margins will perform if there is a multiple breakdown or failure of systems, mechanisms and processes during a significant event such as fire, airplane crash or multi-pronged terrorist attack at the facility, or in a worse case scenario, a major black out, Hurricane or Tornado taking a direct hit on our area, and the Indian Point nuclear facility. Rarely, if ever in and accident scenario is there a singular failure of equipment, but instead there is a cascading failure of MULTIPLE systems and equipment, and this reality is not adequately reviewed in the LRA.

We can as example, look at the David Besse incident. Though the nuclear industry, NEI, NRC and the owners of the reactor found a singular person to place the blame on for that near catastrophic event, a review of documents tells a story of dismal failure of plant management, of the inspection and maintenance process, and on the part of NRC in implementing their own oversight responsibilities meant to protect human health, safety and the environment.

Three Mile Island was not a singular mistake or failure of a system, but a cascading chain of events that resulted in a partial core meltdown. Though the full truth of that incident has egregiously been hidden from public review, enough information about the event is know to show conclusively that Entergy must be required in their Safety Analysis on

which their Aging Management Programs are based must look at, and consider multiple failure of equipment and systems, especially in a Design Basis Accident or Threat.

As an example of Entergy's flawed thinking and safety analysis, in their LRA they admit to having three back up power generators. One for each reactor on the site, and one emergency back up/replacement generator. They use this singular spare as it were as the replacement for both IP 2 LLC, and IP 3 LLC, the reasoning being, that they do have a spare generator to employ in and emergency situation, or black out condition. Each reactor is required to have their own SEPARATE back up systems, not rely upon shared systems, or the same back up generator. A historical review of documents within the industry, and at Indian Point shows it is a reasonable expectation to expect multiple failure of these back up generators. Further, Indian Point's reliance on the same identical back up generator as a part of their defense in depth of multiple back up systems is absurd. They are separately licensed facilities, with separate owners. Would the NRC allow Calvert Cliff to say, "we are going to take credit in our Safety analysis for Pilgrim's spare back up generator? Of course not, yet at Indian Point Entergy is trying to claim certain back up Safety Margins, and certain back up Safety Systems and equipment for both licensees' reactors. They get away with this slight of hand trick, because the NRC wrongfully allows Safety Analysis that take into consideration only one failure, rather than the cascading failure of multiple systems that is the most likely scenario in a significant fast breaking event at a nuclear power facility.

We raise this as Contention 2 A-generic safety concern contention for Entergy's entire application, and approach to ascertaining the fitness of Indian Point for a period of 20 more years of operation.

Contention 3-Fatal flaws, and perhaps egregious misrepresentation of facts as relates to Environmental Qualification of Low-Voltage Instrumentation and Control Cables.

In Entergy's LRA, their Safety Analysis and Aging Management plan for low-voltage instrumentation and control cables to a large degree is based upon supposed "best industry practices", and various generic letters and NUREG guidance from the NRC, including a May 2, 2003 Issue Summary distributed throughout the industry titled, *"NRC REGULATORY ISSUE SUMMARY 2003-09 ENVIRONMENTAL QUALIFICATION OF LOW-VOLTAGE INSTRUMENTATION AND CONTROL CABLES"*. This document was supposedly based upon NRC sponsored cable test research at the Wyle Laboratories and the Brookhaven National Laboratory. The resulting NRC technical assessment was essentially based on reviews and analyses of the research results of six loss-of-coolant-accident (LOCA) cable tests, condition-monitoring tests on I&C cables, and information provided by the nuclear industry. The NRC laid out the following finding:

- **These conservative practices continue to support the current use of a single prototype during qualification testing and, therefore, a successful test provides a high level of confidence that these cables will be able to perform their safety functions during and following a design basis event.**

- However, cable LOCA test failures that occurred during the NRC-sponsored research program indicate that in certain cases the original margin and conservatism inherent in the qualification process have been reduced.
- Licensees have stated in a few cases that a reduction in margin can be addressed by monitoring operating service environments (temperature, radiation, and humidity) to ensure that operating conditions do not exceed the parameters that were assumed during qualification testing. In this regard, walk downs to look for any visible signs of anomalies attributable to aging, with particular emphasis on localized adverse environments, coupled with the knowledge of the operating service environments, could be sufficient to ensure that qualification is maintained.

It is imperative that stakeholders and this board pay careful attention to EXACTLY what is said in this NRC published document. As example, the NRC in the first bullet states that conservative practices continue to support the current use of a single prototype during qualification testing. In the limited understanding of a layperson, what the NRC is attempting to do, is protect a Generic Standard, thus wrongfully avoiding a site specific Safety Analysis at the Entergy Indian Point site. Problem is, the NRC finding and conclusion in this bullet would seem to run contrary to "*Investigation of Bonded Jacket Cable Insulation Failure Mechanisms*, EPRI, Palo Alto, CA and U.S. Department of Energy, Washington, D.C.: 2002. 1001002" (see also Nutherm International Project 8527) wherein EPRI makes the following assertion:

> The program was intended to identify aging fragility levels with respect to LOCA survivability for the composite insulations from two different manufacturers. These fragility levels were identified along with physical property data that can be used to assess the aging of in-plant-cable. Differences in ability to withstand aging were identified, indicating that the Okonite composite insulation susceptibility **is not generically applicable to all manufacturers' composite insulations.**

The old saying says, "You cannot have your cake and eat it to". You either can have a Generic Standard, or you cannot. NRC taking the position that the tests on low voltage have shown you can continue to have a singular prototype during qualification testing has been disproved. **Since you cannot have a singular prototype, in turn you cannot have a Generic Standard when addressing low voltage cables in a License Renewal Application.** Without a site specific Safety Analysis of Low Voltage Cables at Indian Point, which includes adequate qualification testing, you cannot ascertain the reliability of Entergy's Aging Management plan for low voltage cables.

In bullet number two, the NRC admits that in some cases, margins have been reduced. They fail though to adequately state the simple truth with the deliberate omission of a key word which when inserted has the statement reading, "adequate SAFETY MARGINS have been reduced." So, we now have EPRI stating basically that a Generic Standard is not possible, and the NRC deepening our concern in admitting that in SOME CASES (such as at Indian Point IP 2 and Indian Point IP3?) SAFETY MARGINS have been

reduced for LOCA, especially in the extended period of time should a License Renewal Application for Indian Point be approved.

Results of Cable LOCA Tests

Detailed information on the six cable LOCA tests conducted at Wyle Laboratories is provided in NUREG/CR-6704, "Assessment of Environmental Qualification Practices and Condition Monitoring Techniques for Low-Voltage Electric Cables." It should be noted that the LOCA conditions selected for the simulated tests were consistent with those used in the original qualification of the cables. All cable specimens in Test Sequences 1, 2, and 3 passed the LOCA test and the voltage withstand test. Samuel Moore cable specimens failed the voltage withstand test during Test Sequence 4, and Okonite bonded- jacket cable specimens failed the LOCA test and the voltage withstand test in Test Sequence 5. All of the Test Sequence 6 cable specimens, aged to 60 years, exhibited high leakage currents and several cable specimens failed the voltage withstand test. The summary results of the six test sequences are discussed in Attachment 1.

Perhaps most disturbing is bullet number three wherein the NRC boldly states that various and assorted licensee efforts (on the part of Entergy) could be sufficient to ensure that qualification is maintained. **Could be maintained? Could-as in and as an alternative to *can* suggesting less force or certainty.** Words, especially within the context of the Nuclear Industry are very carefully chosen, picked in such a fashion as to leave both the NRC and their licensee a great deal of latitude and wiggle room. The carefully chosen use of the word could in this context provides our community

NO CERTAINTY that Entergy CAN maintain qualification when it comes to low voltage cable integrity in a LOCA event. Such a drastic reduction in Safety Margins is unacceptable.

This is but one sterling example of the inadequacy of Entergy's entire EQ program, which puts the health, safety and environment of our community at grave risk should a License Renewal be granted, and Entergy is wrongfully awarded a new superceding license for IP2 and IP3.

Note-the documents referenced for this contention have been accessed through normal public access avenues available to any one, and so have not been labeled as exhibits to this contention.

Contention 4-Failure to Adequately Address Known Irradiation-Induced Swelling in the PWR Core Internal Components of the Indian Point Reactors.

Historical review of both NRC and Indian Point specific documents conclusively proves there have been, and continue to be serious issues with Internal Core Swelling and plate failure at the Indian Point facility. Though Entergy mentions a failing of one of the Baffle Plates in their LRA, the issue is nonchalantly dismissed with assurances that non-descript already in place programs and inspections have them convinced that said plate will be capable of performing as intended during the period of a new superceding license.

Additionally, Indian Point is a plant which is known to have swelling/Containment Bulge issues within the core itself that have not been addressed in the LRA. There is

some discussion of this issue that can be found in the official transcript of Advisory Committee 545th Meeting on Reactor Safeguards (ACRST-3403) which is downloadable from the NRC ADAMS web site. Though scant on details, the brief dialogue should be adequate enough to raise a concern as to Core Swelling that must be addressed within the confines of Entergy's License Renewal Application in and adequate and satisfactory fashion.

It is pointed out here, that most of the information and testing in this area comes not from PWR but BWR experience and studies. **EPRI has taken the position that applying calculation models based on these data to predict PWR material behavior is QUESTIONABLE.** Those efforts are underway to accomplish some non-destructive testing measurements to act as Benchmarks for PWR, but as of right now, no such reliable information is available. The NRC and industry fully admit to this lack of adequate information, but want to move forward with approval of License Renewal Applications for PWR licensees under the guise of **"We are working on it."**

Entergy's Aging Management Plan for this important issue is to simply make non-enforceable commitments to be delivered at some future point and time after the nuclear industry itself is finished "working on it". In the mean time, their LRA application gives no assurances, no real aging management program, but instead simply states they are aware of the issue, and will keep and eye on it...that is NOT and Aging Management Plan, and does not adequately address this in scope very significant structural integrity and Public Safety Issue.

Note-the documents referenced for this contention have been accessed through normal public access avenues available to any one, and so have not been labeled and included as exhibits to this contention as it is assumed that Entergy and the NRC themselves are capable of doing the same due diligence stakeholders have done in finding said documents.

Contention 5=Entergy Aging Management Plans for almost all components and systems at both IP2 and IP3 are inadequate, non-existent, or are wrongfully written up as future commitments that A) are not legally enforceable, and B) have not, cannot and are not being met in a timely fashion.

Entergy's License Renewal simply fails to even mention many necessary and critical aging management problems. Others, such as FAC are nothing more than one or two sentence explanations using terms like "industry best standards" or making a commitment (which is unenforceable) that they will keep and eye on things until a later date and write an aging management plan once the industry figures out what they are doing. Claiming or stating that the Aging Management plan is identical, or almost identical to NUREG 1801 may see the NRC giving less scrutiny to Entergy's application, as suggested in NEI 95-10, but it does not adequately describe, nor constitute an aging management plan. More importantly, to AVOID dealing with specific components and systems that have known issues as relates to aging management, Entergy wherever and whenever they can are attempting to GROUP and BOUND certain areas and component parts in an attempt to avoid being fully honest in their application, or to push off until

after License Renewal making their aging management plans known, thus thwarting the publics right to be involved in the process.

FURTHER EVALUATION REQUIRED

> The Tables in NUREG-1801 indicate that further evaluation is necessary for certain aging effects and other issues discussed in NUREG-1800 (Reference 3.0-1). Section 3 includes discussions of these issues numbered in accordance with the discussions in NUREG-1800. The discussions explain the site's approach to these areas requiring further evaluation.

The above quote found in the LRA, section three Aging Management Review Results is and admission that the NRC, and the industry simply do not have answers, or enough industry or site specific empirical data to know just how badly certain components will degrade due to various aging effects, nor how to currently manage them. Each and every one of these items that needs "further evaluation" Entergy wants to make a future commitment on, yet the **10 CFR Rules and Regulations REQUIRE an Aging Management Plan, not a commitment to be included as a part and parcel of the application.**

The list of items that Entergy needs to, but fails to provide a detailed Aging Management Plan for include but are not limited to the following:

- Alloy 600 Program-No Specific Mention in Aging Management Review in Section 3 or the LRA on Aging Management Review.

- One-Time Inspection Program (for Chemistry Program Validation)- No Specific Mention in Aging Management Review in Section 3 or the LRA on Aging Management Review.
- Diesel Fuel Monitoring and Storage Program/Diesel Generator- No Specific Mention in Aging Management Review in Section 3 or the LRA on Aging Management Review.
- Fire Protection Program- No Specific Mention in Aging Management Review in Section 3 or the LRA on Aging Management Review. It is further pointed out, that Indian Point 2 and Indian Point 3 have one or more current exemptions related to Fire Protection, yet have failed to provide the required Safety Analysis and reasoning, that would justify their beliefs that said exemption should be carryover into the new Superceding Licenses.
- Reactor Vessel Internals Inspection Program-The application simply states, "Cracking, including cracking due to fatigue, will be managed by the Inservice Inspection. This is a perfect example of a woefully inadequate aging management system. Further, this is a specific example of the industry racing to gain knowledge on this critical aging related problem. The industry admits that they are trying to figure out a way to adequately measure and monitor Reactor Vessel Internals. Further, the industry best practice of visual inspection has not been embraced nor accepted by the NRC.
- Program for the pressurizer support skirts.- The application simply states, "Cracking, including cracking due to fatigue, will be managed by the Inservice Inspection. This is a perfect example of a woefully inadequate aging management

system. Further, this is a specific example of the industry racing to gain knowledge on this critical aging related problem.

- Loss of Material Due to General, Pitting
- Buried Surfaces/Buried Piping External Corrosion Program
- General Corrosion of External Surfaces Program
- Boric Acid Corrosion Prevention Program
- Cooling Water Corrosion Program (Water Chemistry)
- Fatigue Monitoring Program
- Overhead Load Handling Systems (Cranes) Inspection Program
- Containment ISI/Structures Monitoring Program
- Selective Leaching Program
- Thermal Aging Embrittlement of CASS Program (Cast Austenitic
- Stainless Steel)
- Cable Aging Management Program
- Flow Accelerated Corrosion (FAC) Program
- Volumetric Inspection for cracks in NPS Welds (Small Bore Piping)
- Bolting Integrity Program
- Thermal Fatigue Management Program
- Galvanic Corrosion Susceptibility Inspection Program
- Pressurizer Examinations Program
- Heat Exchanger Program
- Fuse Holders Program
- Age Related Degradation Inspection

- Piping Supports-no mention.
- Caulking and Sealant
- Tank Inspections
- Neutron Absorbing Material
- Sluice Gates
- Intake Canal
- Steam Generator Program
- Quality Assurance Program
- Hoses
- Chemistry Program
- Spent Fuel Pool-Not even a mention of spent fuel pools in section three, despite known leaks in ALL POOLS at the Indian Point facility.
- Bus Duct
- Reactor Vessel Surveillance
- Alloy 600 Program - Pressurizer
- Pressurizer Spray Nozzle-Again, no specific mention.

The general guidance given to License Applicants, is to not over commit in the License Renewal Application, to be mute as much as is possible. **Problem is, such advice being liberally given in NEI 95-10 and numerous EPRI documents goes against the NRC rules and regulations to IDENTIFY all components that can fail due to aging issues, and present in detail a Aging Management Plan for those components.** Entergy has chosen to be vague and ambiguous, or to remain silent on certain aging issues. However, review of various EPRI documents came up with the below quoted example, showing

there are NUMEROUS parts and systems that can be significantly embrittled, and that MUST BE managed.

Background

Numerous materials used in a pressurized water reactor (**PWR**) nuclear steam supply system (NSSS) are exposed to elevated temperatures throughout the plant operating period. In most cases, the response of these materials to long-term elevated temperature exposure is unknown. Various failures of NSSS component items— such as valve stems, studs, and bolts— have typically been attributed to improper heat treatment of the material. **However, in the majority of these cases, it is now believed that failures could be attributed to thermal aging effects.** These failures are both costly and time consuming for nuclear plant operators. While the effects of long-term aging (>200,000 hours) at temperatures below 700°F for all types of alloys are not well understood, **limited studies to date show that some materials will experience significant embrittlement that must be managed as the plant operating period increases.**

***note-both IP2 and IP3 have operating time in excess of 250,000 hours, well in excess of the 200,000 hour benchmarks.**

More importantly, EPRI hints that the current aging management plans are ineffective when they state the following:

EPRI Perspective

Long-term plant life and license renewal require an understanding of thermal aging susceptibility for all PWR materials. Such information— also needed in aging management of plant components— would reduce the risk of component failure by increasing awareness of material failure mechanisms. **Ultimately, the study of such materials and components will provide data crucial to developing effective aging management guidelines.**

***note-this is an admission on the part of EPRI that many of the studies necessary to develop and have an effective aging management program simply have not been carried out.**

These disturbing omissions, questionable means of scoping, and lack of quality detail in Entergy's Aging Management plans must be addressed, and more fully reviewed in depth during the hearing on their LRA. Stakeholders have brought up issues of fact that are in contention in this proceeding.

Contention 6-At least one of Indian Points spent fuel pools is using Boraflex, and in fact and deed has Age Related Degradation issues which in fact and deed are creating potentially significant risk to human health and the environment.

BoraFlex Degradation

These activities have been prompted by the slow observed deterioration of Boraflex, a neutron absorber material used in spent fuel storage racks. As this

material is exposed to gamma radiation in the aqueous pool environment, the polymer matrix is converted to silica and/or a silica dominated material. Once the conversion occurs, the matrix retaining the boron carbide neutron absorber can slowly dissolve in the warm water of the spent fuel pool. The rate of dissolution depends on a number of factors including gamma dose, pool water temperature, and specific fuel rack design features. The presence of soluble silica in the pool water and other plant water volumes can therefore be indicative of Boraflex degradation.

One of the signs that a spent fuel pool has serious degradation issues is pool clarity. The turbulence during refueling greatly REDUCES visibility, and this issue has been observed at six reactor sites in America, and Indian Point is one of them. This visibility issue takes on far more importance at Indian Point as they attempt to move fuel rods around and into differing pools in the process of off loading certain spent fuel into Dry Casks. The primary pool to be used for transfer to Dry Cask storage is Indian Point 2 Spent Fuel Pool, the very pool having SIGNIFICANT Boraflex Corrosion Issues.

5.8 Pool Clarity Issues

At a half dozen U.S. spent fuel pools water turbidity during refueling outages has resulted in impaired visibility which has restricted fuel movement. In particular this has occurred at the Byron and Braidwood pools and is caused by the fine (5 micron) crystalline silica added to the polymer matrix of Boraflex. The crystalline silica is added to the polydimethyl siloxane polymer as an extender by the

polymer manufacturer, Dow. As this report was being completed, **Indian Point** Unit 2 was also experiencing significant pool clarity problems.

Entergy's LRA does not even mention the visibility issue, nor do they lay out a comprehensive Aging Management plan to deal with this important age related degradation issue. Further, and perhaps more important, they fail in their LRA and in their Environmental Report to identify and evaluate the environmental impacts of an accident caused by Spent Fuel Pool visibility, nor a accident caused by Spent Fuel Pool visibility combined with human error. There exist serious issues of fact as to the adequacy of Entergy's plans to deal with this known Aging Management and SAFETY issue at Indian Point 2.

Contention 7- ***Emerging Issues*** *Typically, following a component failure event at a nuclear power plant, the NRC raises a question as to how the failure relates to an applicant whose license renewal application (LRA) is currently under review. This same question may then be asked of subsequent applicants.* There are NUMEROUS emerging issues, that according to the NRC Rules and Regulations we are now entitled to raise in the License Renewal Process. We therefore raise the following issues as contentions in this LRA process.

A. Transformer Aging Management and Replacement-A transformer at Indian Point blew up, and caught fire. Transformers are a critical component at Indian Point. Further, a like for like replacement of said transformers is becoming increasingly difficult, if not impossible, as said transformers are no longer manufactured.

B. Electrical connections (XI.E6)-NEI has been wrongfully attempting to ELIMINATE having a AMP for this aging management issue. Some applicants have included one, others have not. Entergy's LRA appears to be silent on this issue, and we feel and AMP is required.

C. Entergy attempts to employ a (Grand Tour) approach to dealing with crucial electrical cables and connections. However, there are cables (medium voltage inaccessible (underground) cables, and the high-voltage, sensitive radiation and neutron flux cables, non-EQ insulated cables and connections, electrical and I&C penetration assemblies, metal enclosed bus, switchyard bus, transmission conductors, high-voltage (switchyard) insulators and uninsulated ground conductors to name examples) that perform a license renewal intended function that must have their own Aging Management Programs. A bounding or group approach is a wrongful attempt to deny the public their right to evaluate these important Aging Management Programs, by simply pushing them down the road, and bringing them into the LRA at a later date and time, including after said LRA has been approved.

D. Seismic Issues-The Earthquake in Japan earlier in 2007 shut down seven reactors, and more importantly, was far more powerful than the Design Basis had planned for. As a result of said earthquake, radiological contaminants left the facility, and on site waste storage mechanisms failed to perform as intended. We therefore bring into the scope of

this license renewal ALL SEISMIC issues for challenge, which will be more fully defined at the appropriate time.

Contention 8-Entergy has provided NO CABLE MANAGEMENT PLANS, but instead relies upon FUTURE COMMITMENTS, despite the fact that ALL LICENSE RENEWAL APPLICANTS are required to have a Cable Aging Management Plan. It is noted here, that NONE of the already approved superceding licenses for other applicants have Cable Aging Management Plans. Stakeholder quotes from EPRI:

> A cable aging management program for low and medium voltage cable will be needed by all plants seeking to operate beyond their initial 40 year license period.
>
> The predominant cable insulation types in use at nuclear plants are cross-linked polyethylene (XLPE) and ethylene propylene rubber (EPR). While these materials are resilient, long-term thermal and radiation aging under severe environments can cause loss of physical properties of these insulations and eventually lead to electrical failure. Plants have committed to cable aging management programs within their LRAs and resulting SERs. License renewal commitments address two broad categories of cable:
>
> • Low voltage (LV), including low-level signal cable used in neutron monitoring instrumentation and radiation monitoring applications.
> • Wet medium voltage (MV).

There are numerous commitments related to cables and cable aging management listed in the SERs. In essence, all plants entering license renewal have committed to a cable aging management program, with later plants providing slightly more detailed commitments.

Document Cite: *License Renewal Commitment Review.* EPRI, Palo Alto, CA: 2005. 1011879.

Committing to have a Aging Management Plan is NOT HAVING a aging plan, which is a requirement of 10 CFR 54. No Aging Management plan, the application is deficient in a material fashion, and should be rejected. Further, as has been pointed out in other contentions, and as is admitted by NRC staff, commitments ARE NOT ENFORCIBLE, which is why many earlier License Renewal Applicants who received new superceding licenses are working on ways to be make the commitments simply disappear, including but not limited to applying for an EXEMPTION. This is an important issue of both fact and law that MUST be resolved.

Contention 9-Indian Point wrongfully eliminates from consideration almost all SAMA candidates, primarily based upon a Cost/Benefit Analysis, which uses fuzzy logic, antiquated population figures, and by placing a low dollar value on PUBLIC EXPOSURE to radiological contaminants.

There exists, a significant issue of fact in how Entergy did their SAMA evaluations, and how they justify their Cost to Benefit analysis. As example, we contest a $2,000 value

used for REM exposures to members of the public, as we contest the population figures relied upon as well. Further, by bounding certain SAMA's, they reduced risks of specific plant component parts and/or systems, by grouping a higher risk singular item with lower risks ones to come up with a group model that works in their favor to rule out specific SAMA's. More importantly, they rely for the most part on assumed costs for implementation at other facilities, rather than doing SITE SPECIFIC analysis.

Use of questionable data...as example, Mixing Data is used from two weather stations, one sixteen miles from Indian Point, and the other in Albany, both outside of the Peak Fatality Zone in the case of a significant radiological event at Indian Point. What is the Mixing Data within the ten mile Emergency Planning zone? That is the data that must be gathered to adequately evaluate certain SAMA's. From Entergy's License Renewal Application we quote:

> **Regional Mixing Height Data**
>
> Mixing height is defined as the height of the atmosphere above ground level within which a released contaminant will become mixed (from turbulence) within approximately one hour. Regional mixing heights were calculated using data collected at National Weather Service (NWS) Station No. 72503 in White Plains, NY (approximately 16 miles southeast of IP2) and NWS Station No. 54775 in Albany, NY (approximately 80 miles north of IP2). These two weather stations were the closest NWS sources of data for local and upper air conditions. Staff meteorologists at the National Climatic Data Center selected these two stations for data used to calculate seasonal mixing height values for the IP2 area.

Another example of the flawed logic in Entergy SAMA analysis can be found in the following statement from their application:

> **E.1.5.2.7 Emergency Response Assumptions**
>
> A detailed analysis of evacuation scenarios in emergency planning zone (EPZ) were addressed in the IP2 evacuation travel time estimate study (Reference E.1-21). The study was conducted in 2004 and provides an analysis of the range and variation of public reaction to the evacuation notification process. Evacuation, which is considered as an effective measure for mitigating accident consequences, would reduce radiation dose received by population within the EPZ.
>
> The primary parameters affecting the evacuation consequences are evacuation speed and time elapsed to the start of evacuation. **Either a lower speed of evacuation or a delayed evacuation would increase the received radiation dose.** In turn, should no evacuation get initiated, the dose would be higher. For this study, a "no evacuation scenario" was assumed to conservatively estimate the population dose.

They, simply stated, make an assumption with no proven facts. Sheltering in place may, or may not be the most conservative modeling scenario for exposures during a off site radiological event depending on numerous variables. As example, how long would it take to evacuate people, compared to ordering them sheltered in place? The Centers for Disease Control (CDC) web site states that sheltering in place provides a 40 percent level of protection from radiological contaminants in a offsite radiological event, or terrorist attack. What is the break even, or point of parity in figuring out the most conservative

estimate of population dose? If ETEP is evacuation time exposure rate, and SIPET is Sheltering in Place Exposure Time, unless you work out and do the math to find out what X is (X being exposure point of equality), you cannot say with certainty that Sheltering in place is the most conservative population dose for their model.

To illustrate, based on the CDC statements, if a citizen is escaping from the area in their car, and are receiving 5 MREMs of exposure on and hourly basis, they would be receiving only 3 MREM per hour sheltered in place. So, depending on the time it takes to evacuate the area, combined with the severity of the event, sheltering in place may or may not be the most conservative model in establishing Dose. At stated exposure pathways, if it took someone exiting the area 24 hours to safely evacuate out of the exposure pathway, it would take the same citizen 40 hours sheltered in their home to be exposed to the same radiation dose. In short, the company makes a CONVENIENT ASSUMPTION for the LRA, yet the industry wants to turn around, and convince the public that Sheltering in Place is a safer option, but arguing a different assumption...IE, evacuation is not feasible, or would take too long, therefore Sheltering in Place is the SAFEST OPTION, as evacuation would expose us to more radiation. That argument would again depend on the time it takes for evacuation. IE, if it took a citizen 6 hours to evacuate, it would then mean citizens would be receiving a higher dose if the in place Sheltering lasts longer than 10 hours. Entergy cannot be allowed to argue different positions based on what is convenient to them on different pages of the LRA. Further, none of their modeling factors in the cost of lost land or home use, lost personal property, and other tangible loses that could be incurred. The NRC, the nuclear industry, and

Entergy in this LRA application have to pick a horse, and stay with it. Simply stated, there are material issues of fact in Entergy's SAMA analysis in dispute.

Contention 10-Increased leakage from primary to secondary aging is not addressed, despite two key facts that would increase the risk to public health and safety:

1. Said increased leakage during the period of license renewal greatly increases the probability of a significant tube rupture.
2. Said primary to secondary aging, and the increased leakage rates will increase the amount of Tritium escaping into the environment through unmonitored and uncontrolled leak issues.

Entergy's License Renewal Application fails to lay out an Aging Management Program for this known safety and aging issue for the period of license renewal should a new superceding license be granted.

Contention 11 Both Indian Point 2 LLC and Indian Point 3 have OEM coatings in containments that are not classified as DBA qualified or acceptable. These OEM DBA unqualified coatings in the Indian Point PWR containments will fail during a loss-of-coolant accident (LOCA) and thus be available for transport to the emergency core cooling system's (ECCS's) sump, thus negatively impacting the licensee's ability to have and maintain Safe Shutdown.

Generic Safety Issue (GSI) 191, *Assessment of Debris Accumulation on PWR Sump Pump Performance*

All U.S. pressurized water reactor (PWR) Licensees, including Entergy know that containment house systems, structures, and components that are painted with industrial coatings are, simply stated outside of design basis. Despite this knowledge, Entergy and other licensees claim these industrial coatings have been identified as either design basis accident (DBA) qualified or acceptable, indicating that these coatings will survive exposure to DBA conditions, even though the NRC has stated disagreement with this industry wide position. Many, if not most of the industrial coatings present in U.S. PWR containments, and especially in antiquated reactors such as Indian Point 2, and Indian Point 3 were applied by original equipment manufacturers (OEMs) and **have not been DBA qualified or accepted with respect to formulation, manufacture, application, and/or documentation.** (Emphasis added.) Most of these OEM coatings have never been laboratory tested in accordance with accepted testing standards (such as ASTM D3911, ASTM D4082, or ANSI N101.2). Little or no documented DBA test data currently exist concerning these OEM coatings.

The industry is doing studies in and attempt to change the NRC approach to this issue, claiming it is to conservative, that IMPACTS the licensee's ability to implement and maintain a safe shutdown in a DBA situation. As stakeholders, we have a grave difference of opinion with NEI, the nuclear industry and Entergy on this critical issue. There is an issue of fact in contention between ALL PARTIES, including the NRC on OEM coatings, and on the issue of lowering Safety Margins for this critical issue.

The U.S. Nuclear Regulatory Commission (NRC) currently holds the position that 100% of DBA unqualified and/or unacceptable coating materials located within a PWR containment will fail (disbond) during a DBA (for example, loss-of-coolant accident or main steam line break) and may contribute to the emergency core cooling system's (ECCS) sump debris source term [4]. **Electrical cabinets, small cranes, electric motors, pipe support components, and other miscellaneous equipment installed within U.S. PWR containments are often coated by the OEMs using DBA unqualified and/or unacceptable coating materials.**

Contention 12-In Entergy's Environmental Report, Appendix E to the LRA, Entergy admits that the majority of their plant employees for both IP2 and IP3 reside in Dutchess County, New York. A close study of their employee population distribution tables, shows that a very small handful of Entergy's employees actually live relatively close to the Nuclear Facility, with only 22 living in Buchanan. In the event of a SIGNIFICANT radiological event at the plant such as a SCRAM, LOCA, or DBT or a DBA, especially during a holiday makes it impossible for Entergy to return employees to the facility in a timely fashion, thus greatly impacting their ability to do and maintain a safe shutdown of the plant.

EPRI's Words:

In some cases, there may be a short period of time to react to the potential threat of the beyond design bases conditions.

Fifty two percent of Indian Point's employees live in Dutchess County. Another 30 percent live at least 40 minutes travel time (in optimum conditions) from the plant site. The place of residence of many Entergy employees that must be on hand in a significant event, could seriously impinge on the plants ability to do and maintain a safe shutdown of the reactors. This creates a potentially large and significant risk to public health and safety, and must be evaluated in the LRA process. Further, Entergy's claim that they can do and maintain a safe shutdown of the Indian Point reactors is a material fact in dispute in this LRA process, as a result of where their employees live related to the Indian Point facility.

Contention 13-In certain accident scenarios such as an outside Design Basis Accident, or a LOCA (Loss of Coolant Accident), or in the case of widespread blackout off site, Entergy wrongfully places far to much emphasis on outside assistance in dealing with their onsite accident scenario. This reliance on offsite assistance from local police, fire fighting and other first responders in turn GREATLY IMPACTS public health and safety for the citizens living within the EPZ, due to what could become a critical shortage of both manpower and critical equipment that our communities rely upon in maintaining our health and safety.

From the onset of a serious incident at Indian Point, Entergy begins relying upon, and using up valuable off site public health and safety abilities in the name of saving their

corporate infrastructure. As example, in a significant accident scenario, the NRC encourages licensees to have in place:

- Establishment of protocols with law enforcement agencies to facilitate passage of necessary personnel (e.g., additional licensee staff) onto the site in such an event;

Such protocols take KEY first responders away from their responsibilities and duties to the communities who employee them, pay their salaries, and count on them to be there for us in our time of need. It should be the responsibility of Entergy to get their additional licensee staff to the site in a timely fashion, without using up the valuable limited emergency resources of local communities, many of whom receive no financial advantages from Indian Point operating within ten miles of us. Entergy should not be allowed to enter into MOU's with local governments to help them in their time of need. Indian Point earns more than adequate enough profits to fund their own fully manned and operated fire, ambulance and police services to a degree that gives them the capability to handle any DBT, DBA or LOCA or terrorist attack without dependence on outside first responders.

Citizens should not find themselves in a situation where their house, in the case of a fire, burns to the ground because our community fire fighting equipment was lending assistance to Indian Point. Victims of a car accident (a very real situation in and Emergency Evacuation) should not find themselves unable to have an officer of the law respond because they are helping Indian Point and Entergy facilitate movement of

licensee staff onto the site. Those escaping the area should not be slowed down, nor deterred because first responders are keeping certain exit roads open for licensee staff making their way back to the facility while we are trying to safely escape the area.

In a ALL HANDS ON DECK scenario, it is imperative that our community resources are not squandered away needlessly to protect Entergy infrastructure. Entergy's reliance on off site first responders, police, fire fighters and EMT's in a significant accident scenario wrongfully and egregiously lowers every EPZ community's ability to maintain public health and safety, assures that public health and safety is put at a needless and elevated risk. Further, depending on off site events that are occurring simultaneously with such a significant onsite accident scenario, said public infrastructure that Entergy is relying upon may not be readily available for their exclusively use, and if it is, it is being made available to them at a cost to local communities that equates to a significant lowering of our own public health and safety.

Therefore, Entergy's ability to do and maintain a safe shutdown is a material fact in dispute in this LRA. It is imperative, that a private corporate entity not be allowed to rely heavily upon public assistance in orchestrating and maintaining safe shut down of their reactors, and in fact and deed, NRC rules make no such allowances, but instead as it should be, place that duty and burden squarely on the shoulders of the licensee.

Entergy should, but does not have the ability to deal with certain accident scenarios, does not have adequate emergency infrastructure in place on site, including but not limited to the following, in adequate enough supply to deal with a significant accident scenario:

The scope of these options should include reliance on on-site resources. The mitigation strategy identification process and on site capabilities should include the following types of possible measures for the protection of the reactor core and spent fuel:

- Accident management guidelines (i.e., SAMGs or guidelines similar to SAMGs) to respond to specific threats or specific damage scenarios; e.g., multiple fire areas with damage where possible "work around" measures could be used to mitigate the damage;
- Triggers for early entry into SAMGs, if necessitated by the damage scenarios involved;
- Simple contingency pre-alignments or pre-staged equipment;
- Establishment with management and security staff to facilitate passage of necessary personnel (e.g., additional licensee staff) onto the site in such an event;

- Pre-staging of fire fighting resources;
- Procedural and training enhancements to support implementation of a mitigation strategy; and,

- Enhancements to the command and control

Therefore, for beyond design basis conditions, the objectives should be as follows:

1. Prevent core damage;

2. Delay core damage if core damage cannot be prevented;

3. Prevent containment failure;

4. Delay containment failure if containment failure cannot be prevented;

5. Prevent large early releases by delaying fuel damage; and,

6. Reduce and monitor off-site radiological releases to the greatest extent possible.

Superceding all of these, is the protection of human health and the environment above all else, including if necessary, the sacrifice of plant infrastructure in the name of protecting public health and safety.

Contention 14-The LRA, and the UFSAR's for IP2 and IP3 fail to adequately address the currently existing, known and unknown, environmental impacts and affects from the ongoing known and unknown leaks of underground pipes, and fails to lay out a workable aging management plan for said leaks.

Entergy's license renewal application (LRA) for IP2 LLC and IP3 LLC fails to lay out in specific, understandable detail a workable aging management plan to deal with both known and unknown leaks in the underground pipes and spent fuel pools, which play a critical role in maintaining a safe shut down of the facility reactors. The LRA and the UFSAR's for IP2 and IP3 inadequately, if at all address the currently existing, known and

unknown, environmental affects and impacts of ongoing leaks, and fails to lay out a workable aging management plan for said leaks. Keeping and eye on them, and promising to deal with them at some later point in time, or during decommissioning is unacceptable.

Unplanned, unmonitored leaks of liquid radioactive effluents, including tritium, strontium 90 and cesium 137, are leaking from known and unknown underground pipes and other components at Indian Point into the groundwater and Hudson River ("Radiation Leaks"). In most cases, the duration, extent, flow paths, and/or source of the Radiation Leaks, remain unknown. To date, Radiation Leaks have been discovered throughout the Indian Point 1, 2, and 3 complex. The Radiation Leaks manifestly can neither be repaired nor remediated until sources have been identified and/or located, and the true volume and scope of the leaks is known with specificity.

As of the date of this submission, upon information and belief, the Radiation Leaks result from separate, and a multitude of onsite systems, structures and components, including, the following: (A) Failed or degraded pipes (including pipes that transport liquids and pipes which transport steam); (B) Cracks in spent fuel pools; (C) Failed or degraded valves; (D) Reactor vessel failed welds in the bottom of vessel (which inspectors have been unable to adequately view and reach); (E) Pinhole leaks around weld joints; (F) Failed or degraded gauges; (G) Failed or degraded fuel transfer tube sleeves; (H) Failed or degraded steam generator tubes; (I) Inadequate or improperly operating drain systems; (J) Cracks and fissures. (H) various inaccessible reactor cooling system

pipe structures, many of which are buried underground, rendering them incapable of inspection.

It is worthy of note that irradiated water is in fissures in the bedrock, that will eventually leach into the tidal Hudson River. Many of the cracks and fissures in the bedrock were created when the bedrock was blasted when the plant was first built, and therefore the irradiated water can take a very convoluted route into the environment, the groundwater and Hudson River. This means, that the various test wells on the site are not necessarily representative of the scope and volume of the leaks, or the amount of radiological contaminants finding their way into the environment through potable and ground water sources.

These multiple leaks provide direct evidence of underground pipe failure and/or degradation due to the aging of various systems that are not being adequately addressed by the applicant, and proof that the applicant's management of aging issues is wholly inadequate. The NRC position that no problems exist, as no contaminants have thus far left the licensee grounds is A) false, and B) not representative of the true reality at the Indian Point site. **As example, some contaminants are finding their way directly into the discharge canal, and from there directly into the Hudson River.**

In fact certain Radiation Leaks, including tritium leaks (allegedly) from underground pipes on the "non-radioactive" side of plant were discovered purely by random accident on April 7, 2007, rather than via a coordinated, intelligent aging management and

inspection plan. Other leaks were discovered, only because special excavation work being done by a contractor led to investigations after tritiated water was found seeping from surface cracks in the wall of spent fuel pool number 2, not through regular inspection and maintenance. In fact the length of time and extent the leaks have existed remains unknown.

These multiple leaks that are both known and unknown are symptomatic of an aging infrastructure system that is not being properly and comprehensively inspected and maintained during the initial license period. There is no reason to believe that during the 20 years of the proposed new superceding license the Applicant will do a better job of properly inspecting, maintaining and managing the aging facility. Nor does the LRA identify an aging management plan to locate, stop and remediate the current and future leaks. These leaks put the Licensee, Entergy Nuclear, IP2 LLC and IP3 LLC out of compliance with NRC Rules and Regulations meant to protect human health and the environment, and additionally, see them outside their Design Basis, and incapable of meeting the definition and criteria of their CLB.

The existence of the Radiation Leaks at Indian Point provides direct evidence of underground pipe failure and/or degradation that has not been adequately assessed by the licensee. Ordinary maintenance has failed to reveal the specific locations of numerous Radiation Leaks, therefore the limited aging management program indicated in the LRA will also fail to identify radiation leaks before they cause damage to the environment, or before the leaks become breaks. A significant break or rupture of one of these already

degraded underground pipes could lead to significant core damage or loss. The LRA does not specify comprehensive visual inspections, vacuum testing and ultrasonic testing for all buried pipes to determine corrosion and aging affects, nor lay out a comprehensive aging management plan for them.

Moreover, at an April 26, 2007 public NRC meeting in Cortlandt, N.Y. ("April NRC meeting"), NRC and Applicant representatives conceded that they did not even know the metallurgic composition of much of the underground piping. Without a complete and comprehensive knowledge of the composition and layout of the underground piping system the Applicant will be unable to implement an adequate aging management plan for the period of the requested license renewal period.

Inaccessibility limits the inspection and testing of substantial segments of these aged and leaking pipes and components, especially those having a buried or embedded environment. Thus, the Applicant cannot assure the NRC and the public that they will be able to manage these effects of aging, including contributory factors such as soil elements, the intake of brackish water from the Hudson River and/or storm surges during the 20 year new superceding license period, all of which have already caused dangerous corrosion of Indian Point's entire piping, valve and gauge systems resulting in the current leaks, both known and unknown.

In the past few years there has been a significant increase in the amount of leaks found, at the IP2 LLC and IP3 LLC site, which indicates that as the plant ages there will be

increased frequency of pipe leakage during the 20 year period of license renewal. In fact, the NRC admits that pipe leakage in the additional period of a License Renewal becomes a bigger issue, as leakage from all pipes is expected to increase, thus requiring more vigilance and aging management. Further, the industry's leak before break (LBB) policy is becoming problematic, and showing signs of being inadequate to gauge potential pipe ruptures, breaks and failure, especially in areas where visual inspection is all but impossible.

Since August 2005 the applicant has not been able to identify all the sources of the underground leaks, nor the duration and volume of these leaks. On December 1, 2005, the applicant reported to the NRC that an initial sample from a new monitoring well five feet from the wall of the IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. In addition, the NRC announced that **preliminary tests of tritiated water found in the IP1 Pool Collection System contain too much tritium to be from the IP1 Pool**, suggesting that tritium-laced water is being collected in the IP1 Drain from another, unknown source. The Applicant still does not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant. Conservative estimates place the amount of radiological contaminated water under IP3 at over 300,000 gallons. This is based on Entergy's best guess estimate of volume flows from known leakage points at the facility.

August 24, 2006 Faulty valves triggered shutdown of Indian Point 2.

Workers had to shut down Indian Point 2 after problems developed with discharge valves in a 10,000-gallon tank of non-radioactive water. This is representative of an ever increasing aging problem at the plant that is not being adequately addressed, and further is representative of the reality that Entergy may simply be incapable of stopping said leaks short of shutting the entire facility down, and decommissioning the site.

November 29, 2006: An unplanned shutdown at Indian Point 2, because a one inch steel alloy pipe was found leaking non-radiated water in the containment building. Again, at every step of the regulatory process, as this early build site ages, leaks are appearing in ever increasing numbers, and in all systems of the plant. More troubling is the fact that not only is Entergy not finding these leaks through normal maintenance inspections, neither is the NRC.

April 24, 2007 A new leak of the radioactive isotope tritium was accidentally discovered at Indian Point, coming from an underground steam pipe near the Indian Point 3 turbine building, company officials and federal regulators confirmed. Of key importance here, is the fact that Entergy's management and maintenance plans did not locate the leak, showing yet another example that Entergy's existing aging management and maintenance plans are woefully inadequate in the current period of operation, and are going to get worse should a new superceding license be issued to the facility, thus granting them another 20 years of operation. It is imperative that a viable, workable Aging Management plan be included in the application, commitments for future promised actions unacceptable to our community.

September 7, 2007 a pinhole leak is identified as a conduit leak when in fact it was and is a leak in the fuel transfer canal. This pinhole leak in the fuel transfer canal may be a contributing source to the ongoing groundwater contamination of Strontium and Tritium at the site. **Again, it was not routine maintenance that located this leak.** Furthermore, it is noted that Entergy has an odd definition of what a pinhole leak is. They describe a gaping crack in the IP2 Spent Fuel pool as a pin hole sized leak, when in reality a photograph of said leak shows it to be a crack that runs for a span of at least nine feet along the outer wall of said spent fuel pool.

All of these underground leaks point to the imperative necessity for a complete inspection and comprehensive corrosion analysis of all underground piping and structures. Compromised pipes and structures will cause or fail to mitigate a serious accident, including a core damage event. Therefore, to properly maintain the aging facility any and all compromised pipes and structures must be repaired/replaced before any period of license renewal begins, including the ones under the reactor where information from discussions with Indian Point workers who wish to remain unknown out of fear of retaliation lead us to believe seals may be leaking.

The insufficiency of a reliable aging management program in the LRA of IP2 LLC and IP3 LLC increases the exposure risks of plant workers during the 20 year period of license renewal, and greatly increases the potential for a significant nuclear incident at the Indian Point facility during the period of license renewal, as increasing leak rates

negatively impinge upon the core cooling component structures, and increase the risk of severe pipe ruptures that would lead to a release of unmonitored and uncontrolled radioactive contaminants into the environment, including the Hudson River, thus presenting a significant and increased risk to public health and safety.

The NRC itself has expressed concerns on this very issue as relates to ALL license renewal requests, and requested as a part of the license renewal application process that their licensees perform an assessment to ascertain and/or determine the potential severity of the effects of reactor water coolant environment on fatigue. Further, where appropriate, the NRC further suggested/requested that license renewal applicants provide a proper aging management plan to deal with said fatigue issue. This concern was/is included in discussions found in NUREG/CR-6674. Though indirectly related to underground piping, this NRC NUREG contributes key support to our concerns about Indian Point's underground piping systems and structures.

Entergy in their LRA for IP2 LLC and IP3 LLC make a brief reference to reliance on a nuclear regulator approach to this significant issue, yet fail to identify with specificity an aging management plan which deals with the unique site specific environmental effects at the Indian Point facilities. The adequacy, or lack there of, as relates to this specific aging management issue is a matter of fact, that can only be resolved after interested parties, including community Stakeholders have an opportunity to submit evidence, cross examine expert witnesses, and a full review of supporting documents has been conducted on the part of the hearing board. Future Commitments to develop an aging management

plan for a reactor site already experiencing significant leak issues is simply unacceptable, and puts public health and safety at too great a risk, even by NRC standards.

Entergy's Indian Point facility (IP1, IP2 and IP3) have numerous serious leak issues. It is further known that leaks in the cooling pipes (critical components in the reactor water coolant process) present a serious plant specific safety issue/problem if an adequate aging management plan is not in place. Maintenance logs and other documents that will be found in pre-hearing document discovery will prove IP2 and IP3's aging management plan for this issue is woefully inadequate. Further, there are numerous NRC inspection documents identifying leak issues at the plant which will support this contention.

The NRC and the nuclear industry have admitted that environmental fatigue will increase the rate, volume and number of these leaks during the period of 20 years of additional operation of these aged facilities.

The industry's newly developed and unproven approach to this known aging issue is inadequate, and fails to adequately address the unique environmental issues specific to IP2 LLC and IP3 LLC as said plants rely upon a unique brackish water supply for their reactor core cooling system, which makes their water environment corrosion issues unique when compared to other PWR licensee sites, and the various studies done on this important aging issue.

Generic industry approach is inadequate to address the unique site specific leaks in the

pipes, as evidenced by various already identified leaks. Leaks are a precursor to PIPE BURSTING in nuclear reactors primary coolant systems. In fact, the industry's own LBB aging management plans for certain pipe systems admits this fact.

IP2 LLC and IP3 LLC's poorly defined and inadequate aging management issue as relates to this specific topic of underground pipes and systems greatly increases the chances of a significant incident. such as large pipe burst, that could lead to an off site release of radioactive contaminants, thus creating a significant risk to human health and the environment, if as is contended here, said aging management plan is inadequate to properly address this aging management issue.

The NRC and Entergy do not have an aging management plan for the underground leaks. EPRI and other industry groups are currently trying to increase their knowledge pool on this critical issue. The applicant initiated actions to pump out the Unit-1 Containment Spray Sump through a filter/demineralizer system, designed to remove Sr-90, and investigate the source and means of the Sr-90 groundwater contamination proved to be problematic. When the applicant started to remove the contaminated liquid from these underground leaks by pumping the radioactive contamination out of the ground, it caused more radioactive material to be released. Therefore the NRC ordered the Applicant to stop removing the radioactive effluent from ground, and only monitor it. Monitoring leaks is not an aging management plan, nor does such monitoring stop, nor reverse age related degradation of key facility infrastructure.

Due to the location of the leaks on the banks of the tidal Hudson, allowing the radioactive contamination to remain in the ground during the 20 year new superceding license period, means the radioactive effluent will continue to be leached into the Hudson River, potentially causing great harm to human life, as 6 communities within the tidal area of the Hudson currently use the river for drinking water. New York City's emergency water station is location in Croton, just a few miles down River, and the County of Rockland has just received a proposal from United Water to use the Hudson River for drinking water.

Neither Entergy nor the NRC have identified an adequate aging management program for the various known and unknown leaks at the Indian Point site, thereby endangering public health and safety, by permitting unregulated radioactive waste to continue to be released into the environment now, and during the 20 year new superceding license period. This is not an aging management program, but rather indicates irresponsible and negligent management by the Applicant and improper oversight by the regulator.

Critically compromised pipes can cause or fail to mitigate a serious accident, including a core damage event. Therefore effects of or associated with aging - including embrittlement, corrosion, rust, heat, and microbiological and chemical agents - may destabilize and weaken the tensile strength of the piping and associated equipment and components. This presents an unacceptable risk during an extended life of the plant which must be specifically and fully addressed by the aging management program. The

aging management plan iterated in the Indian Point application utterly fails in this regard.

The applicant has displayed plume maps of the strontium 90, tritium and cesium which is pooling underground due to the ongoing leaks, but have claimed the maps are proprietary. In addition a few weeks after the deadline for Intervener Petition's the applicant supposedly will deliver a new leak report. Therefore FUSE respectfully requests that opportunity to amend this contention after the new leak report and plume maps are made available to the public Stakeholders is granted.

Supporting Document References for This Important and Crucial Contention Include:

1. NUREG/CR-5999 (ANL-93/3), "Interim Fatigue Design Curves for Carbon, Low-Alloy, and Austenitic Stainless Steels in LWR Environments," April 1993.

2. NUREG/CR-6260 (INEL-95/0045), "Application of NUREG/CR-5999 Interim Fatigue Curves to Selected Nuclear Power Plant Components," March 1995.

3. NUREG/CR-6583 (ANL-97/18), "Effects of LWR Coolant Environments on Fatigue Design Curves of Carbon and Low-Alloy Steels," March 1998.

4. NUREG/CR-5704 (ANL-98/31), "Effects of LWR Coolant Environments on Fatigue Design Curves of Austenitic Stainless Steels," April 1999.

5. NUREG/CR-6674 (PNNL-13227), "Fatigue Analysis of Components for 60-Year Plant Life," June 2000.

6. U. S. Nuclear Regulatory Commission, Generic Safety Issue 190, "Fatigue Evaluation of Metal Components for 60-Year Plant Life."

Contention 15-Numerous ENVIRONMENTAL and ECONOMIC JUSTICE Issues related to License Renewal need to be addressed in the hearing that directly and or indirectly affect public well being, health and safety.

The nuclear industry enjoys financial incentives beyond what is available to renewable energy sources. Between 1947 and 1999, the nuclear industry was given more than $115 billion in direct taxpayer subsidies, compared to a mere $5.7 billion for wind and solar over the same period. The Energy Policy Act of 2005, with an additional $3 billion dollars subsidy to the mature nuclear industry that already has received the lion's share of federal energy funds over the past 50 years creates an economic disparity that prices HEALTHY renewable energy outside the point of affordability for lower income families. These on going unbalanced subsidies to the nuclear industry, and by proxy Entergy, have resulted in a violation of Fair Trade doctrine, that in turn denies citizens a right to clean, renewable and sustainable energies. Further, this imbalance of Federal Subsidies given to the nuclear industry, and by proxy Entergy enslaves lower income families to the public utility, which in this immediate case is Entergy.

Ratepayers and taxpayers are the victims of this violation of fair trade. Specifically New York State taxpayers and the residents surrounding Indian Point are footing the majority of the costs for Emergency Preparedness, site upgrades, and security, and due to the short fall in decommissioning trust fund will also be burdened by the cost of site clean up. At Indian Point, Entergy is making a profit of nearly $2 million dollars a day, and should rightfully be absorbing these costs, which in turn would allow all levels of government to put more money into renewable energy exploration and research, which in turn would not only make alternative energy sources such as wind and solar more affordable, but over time would price these alternatives competitively for those in the lower income brackets of our society, thus returning to them their freedom of choice in selecting clean, healthy home energy sources.

Yet, as an example of the gross inequity and the violation of Fair Trade standards, last year Entergy's Chairman received a salary of $27 million dollars, even though Entergy New Orleans filed for bankruptcy, and received a government bailout of almost $300 million, while the ratepayers in New Orleans were given greatly increased electrical bills. This $300 Million in government grants to Entergy allowed them to recoup 90 cents of every dollar they lost during Hurricane Katrina, while that same grant money invested into individual home solar and wind systems, could have made 15,000 New Orleans homes basically energy self sufficient.

Due to the deregulated electricity market, where free trade is a core tenet, there needs to

be a fair analysis of increased costs, and exposures to the community, as it relates to Indian Point. Economic subsidies from tax dollars are going to support nuclear energy facilities, such as Indian Point. The claim that nuclear power is cheap energy should be fully explored, including but not limited to, operational costs, the costs of research and development, costs borne by taxpayers, by way of subsidies and other hidden costs to support site security, and emergency evacuation procedures. As example, stakeholders are not aware of any need for a Wind Energy Emergency Evacuation Plan, nor would we have to worry about being ordered to Shelter In Place in the case of a terrorist attack on a Windmill or Solar Energy project.

Entergy's large stake in unregulated wholesale markets for nuclear energy give it a big edge over traditional utilities With profits for its nuclear operations growing much more quickly than for its regulated utilities, Entergy plans to spin off its six unregulated nuclear plants, including Indian Point, into a different company. In fact, Entergy has filed a license transfer application, after filing the license renewal applications, for both IP2 and IP3 to Entergy Nuclear Operations. Though the NRC does not normally worry itself over economic realities, they must address them when issues of Environmental and Economic Justice arise in a Federal Action. Wind and Solar as two examples are a healthier more environmentally friendly source of energy. Subsidies to the nuclear industry are wrongfully denying lower income citizens fair and equal access to this alternative, healthier form of home energy, as these two forms of renewable energy are not being allowed to reach the tipping point where their use becomes affordable to the masses.

This amounts to an environmental justice issue of MEDIUM concern, since the Stakeholders and Ratepayers are at a serve disadvantage in advocating for public health and safety, when Entergy has the ability to throw it's unprecedented financial weight behind a powerful legal staff.

In order to mitigate this imbalance, the NRC would be warranted to require Entergy to pay for the legal expenses of the community Stakeholders, and require a comprehensive study of the actual costs to taxpayers for the operation of Indian Point, including, but not limited to:

a. Annual Federal, State and local Subsidies and tax credits, pro-rated to adequately represent how much of the whole directly or indirectly goes to defraying Entergy's cost of operation for IP2 and IP3.

b. State and local pilot tax deferment.

c. Price Anderson Insurance Liability Limitation, including citizens and land losses in the case of a significant accident involving offsite radiological contamination at the Indian Point facilities.

d. Costs of emergency preparedness (at all levels of government).

e. Costs of security absorbed by all levels of government.

f. Federal and state funded research and development, including grants or shared cost projects.

g. Costs of mining, include clean up costs of mind tailing.

h. Cost of processing, including transportation at all steps of the process, governmental paid expenses associated with construction and operation of fuel processing facilities, such as the Gaseous Diffusion Plants, and the proposed GNEP reprocessing plant. These costs should also include environmental restoration and clean up costs associated with these processing facilities, such as Hanford , Portsmouth, Piketon, Fermi and other locations.

i. Costs of plant construction, including all past, current and future loan guarantees.

j. Costs of transportation of fuel, both feed stock for reactors, and spent fuel.

k. Costs of radioactive waste storage (which should include the monthly surcharge being added to our bills to cover the expected costs of off site storage.

l. Costs of decommissioning and returning site to green field.

m. Cost of health effects

n. Costs of regulatory enforcement not covered by licensee fees. As example, the NRC received almost one billion dollars in this past budget period to cover expected additional costs in preparing for new license applications.

o. Additionally, the extent that there are unequal subsidies and life-cycles, the total costs and values of energy efficiency and renewable energy sources, such as geothermal, photovoltaic and wind, must be comprehensively considered. All reasonable energy alternatives,

especially the renewable, sustainable, safe, forms of energy that are widely viewed as the energy technologies of the "future" as well as efficiency technologies and demand-side options must be considered in the EIS, including the replacement energy study by NAS.

Due to the fact that the economic and environmental justice issues as relates to violations of Fair Trade, and financially prejudice advocacy has not been considered in the GEIS, nor has mitigation of these issues, the issues of Economic and Environmental Justice as it relates to Fair Trade must be fully considered as a Category 2 issue in the EIS, and must be incorporated as a issue of contention in this LRA..

ECONOMIC and ENVIORNMENTAL JUSTICE - Sustenance Fishermen

Sustenance Fisherman's health and economics are affected by Entergy's failure to properly prevent releases of unmonitored radioactive waste into the environment, the air, the water and the ground.

The affected population are those residents,. specifically the non-English speaking residents, living within 10 miles of Indian Point (Haverstraw, Stony Point, and Peekskill) who are unjustly endangered for the following reasons:

1) The Emergency Evacuation Booklet is in English, it is true that if you can read the booklet in English you could find out how to get a Spanish version;

2) A large number of non-English speaking residents are sustenance fishermen, fish the Hudson River, without being informed that they are catching fish which are laced with strontium. There is no educational campaign or warning signs placed along the river, at the customary fishing sites to inform such fisherman not to eat the fish.. These fishermen are unaware of the radioactive strontium in the bones of the fish. This is an issue of environmental justice because unrepresented members of the community and their families are being placed in danger from the ingestion of strontium 90. This is especially dangerous for young children, as strontium acts like calcium in bone formation.

The magnitude of the impact on the on the affected population is currently MODERATE, and currently is evidenced by the increase in thyroid cancer in those communities closest to the plant, however as the plant continues to leak strontium, tritium and cesium into the Hudson River, the magnitude of the impact during the 20 year new superceding license will become LARGE, and the radiological adverse health affect expands. With this expanding negative impact to health, comes associated financial costs that this representative group cannot afford to pay, which often sees them not seeking out adequate health care.

Indian Point is the only plant in the nation leaking strontium 90, therefore the impact on the environment and human health is site specific. Mitigation measures which find, stop, remediate, any and all leaks of strontium, cesium and tritium from Indian Point into the ground, air, groundwater and river must be

taken, and those site specific mitigation measures must be included in the EIS, and considered as a contention in this LRA process.

The Category 1 analysis in the GEIS is insufficient because 1) the sustenance fisherman in the area surrounding Indian Point are uniquely affected by the site specific leaks at Indian Point and the geological attributes of the site and its close proximity to the Hudson.

FISH RETURN PIPELINE

Since 1986 Indian Point was required to build a fish return pipeline and since that time has received multiple construction permits pending issuance of a new easement. However the fish return pipeline was not constructed and therefore a final easement has not been issued. The lack of this completed commitment again creates and Economic and Environmental Justice issue for Subsistence Fisherman who are dealing with lowered populations as a result of Entergy operations.

Furthermore, non-completion of this fish return places Indian Point in violation of New York State law, which affects all the residents of New York State who own the Hudson River, and affects the aquatic life in the river, and the environment of the Hudson Valley.

The significance of the effect of this failure to build the fish return pipeline is

MODERATE as its environmental effects are sufficient to alter noticeably, but not to destabilize important attributes of the people's resources.

The requirement of the FISH RETURN PIPELINE is site specific, and is not currently a part of the GEIS. Mitigation measures that would be warranted would be for the NRC to require that the Fish Return Pipeline be constructed prior to approval the LRA, along with the long over due CLOSED COOLING SYSTEMS. A comprehensive analysis as to why Entergy has not built the required FISH RETURN PIPELINE must be included in the EIS, therefore creating a issue of contention in this LRA process.

STAINLESS STEEL CORROSION OF ROLLERBEARINGS on TRAVELLING WATER SCREENS

The series 400 stainless steel roller bearings on the traveling water screens for IP3 have large holes, which are caused by corrosive microbes and lack of maintenance. This condition has existed since 1991, yet remains unremediated. Workers at the plant have found that stainless steel nuts and bolts thrown into water are rapidly disintegrated, "eaten", by the microbes. The microbial corrosion potentially effects all the 400 series stainless steel, inspected and uninspected, components, pipes, filters, and valves at Indian Point. Therefore the ability of Entergy to maintain a safe, closed system that does not contaminate the environment is jeopardized. This in turn puts down

river communities in danger, and threatens public health and safety, as it increases the risk of a significant DBA which could destroy the river, and cause thousands of people to be forced out of their homes.

The population that is affected by this corrosion is the entire community within the 50 miles of the plant, as such rapid corrosion due to the microbes may lead to a significant release of radioactive nuclides into the air, water, or ground.

The significance of the huge holes in the roller bearings on the traveling water screens is MODERATE, as it does not destabilize important attributes, however, the possibility of the corrosive microbes damaging other stainless steel components, pipes, filters and valves is LARGE because it would have environmental effects that are clearly noticeable and are sufficient to destabilize important attributes of Indian Point. Further, this microbial destabilization of plant infrastructure is in many cases occurring from inside structures towards the outside, thus weakening tensile strength of key cooling system structures and pipes in a way that cannot be seen through customary walk downs and visual inspections.

The GEIS does not include analysis of this microbial corrosion and is site specific to Indian Point. The GEIS does not consider additional mitigation measures to prevent the adverse effects of the microbial corrosion, such mitigation would be

warranted. Therefore the criteria of Category 1 have not been met, and an additional plant specific review in the EIS is required.

This concludes section A of FUSE USA filings. Remainder of this page left deliberately blank.

Part B-FUSE USA Stakeholders herein do raise the contentions raised in their September 19th, 2007 filing in a renumbered sequence in this Superceding Filing. For the sake of clarity, since Entergy and their team of attorneys claimed FUSE USA filings were confusing, it is pointed out here, that the contentions in **Part B** are generally specifically targeted to Indian Point 2 LLC as a separate and unique NRC Licensee. All exhibits and declarations from that original filing are included as a part of this new FUSE USA filing in their originally submitted format, with the exception that we have relabeled and numbered them per the Atomic Energy and Licensing Boards order in this case, and provided a listing of all exhibits for this filing. What we as an organization have, and are doing, is simply correcting the FUNDAMENTAL FILING ERRORS (IE-Certificate of Service) brought to our attention by the ASLB.

Contentions 16 through 19-Applicants violation of the Administrative Procedures Act in bypassing the Code of Federal Regulations (CFR) in lieu of trade guidance for defining Indian Point 2's General Design Criteria relevant to current design and more on point relevant to superseding the current operating license with a new operating license to facilitate an extended period of operation:

Statement of the issue:

The regulatory rules for obtaining a new superseding license, as delineated in the code of federal regulations, specifically rule 10 CFR 54, "License Renewal" and in particular, aging management as delineated under 10CFR50.21were set aside by Applicant in lieu of guidance documents promulgated by the trade industry. The applicant misrepresented the

General Design Criteria with which the plant is required to comply. This is Contention 16.

Entergy as well as the federal agency willfully and knowingly violated the Administrative Procedures Act, and as a result prostituted the license renewal submittal, content, acceptance and approval for Indian Point 2. The Aging Management Programs proposed by the applicant are based upon misrepresentations of the actual general design criteria that Indian Point 2 was licensed to. The as-built construction of the facility does not comply with the operating license nor to the code of federal regulations.

Facts:

The extent of the violations are breathtaking, and involve a substantial prima facie breach of Administrative Procedures Act (APA) by the Nuclear Regulatory Commission over almost four decades for Indian Point 2. In direct defiance of APA, the NRC accepted Amendment nine of the Operating License in which Entergy acknowledged commitments to general design criteria for its new in progress plant under construction (in 1968, at that point the plant was more than two years into construction without a formal permit), to trade comments to proposed general design criteria

erroneously claiming also that the comments were published in the federal register in July, 1967.

The applicant claimed adherence to a general design criteria required for the Licensing of Indian Point 2 facility and committed to by the applicant in the 1973 SER,. In actuality, the plant design, programs and procedures *were* licensed to trade industry-endorsed commentary regarding the general design criteria, as can be seen by a close examination of the submitted FSAR for the LRA and approved in the 1970 SER which bypassed the federal rules as found in 10 CFR 50 Appendix A, approved by the NRC.

Entergy's failure to adhere to general design criteria substantially reduces safety margins for safe plant operation, by severely reducing detection of and the consequential mitigation of accident conditions with adequate means to protect the health and safety of the public.

The NRC continued this pattern of bypassing the Administrative procedures Act in 1992, **in which the regulator relieved the applicant of all compliance enforcement to any general design criteria**, without any attempt to abide by the Administrative Procedures Act.

The commission believed that it could use guidance documents from trade organizations in lieu of rules as was adjudicated in *Metropolitan Edison Company, et al. (Three Mile Island Nuclear Station, Unit No. 1) ("TMI") ALAB-698, 16 NRC 1290, 1298-99* (October 22, 1982), affirming *LBP-81-59, 14 NRC 1211, 1460 (1981* The criteria described in NUREG-0654 were intended to serve solely as regulatory guidance, not regulatory requirements). Indeed, the Commission's mere reference to NUREG-0654 in a footnote to *10 C.F.R. § 50.47* would have been insufficient to incorporate that document by reference as a part of a federal regulation, had the Commission so intended.

The NRC continues this approach today without any hint of complying with the rules of the ACT. In summary, Indian Point 2 is obligated to meet the requirements of the GDCs as published on July 11, 1967. In fact, they falsely state they are in compliance on page 3 of the LRA. Indian Point 2 plant was designed and being constructed on the basis of the proposed General Design Criteria, published July 11, 1967. Construction of the plant was already underway when the Final Facility Description and Safety Analysis Report was filed (filed on December 4, 1970) and when the

Commission published its revised General Design Criteria in February 1971 and final version of the criteria in July 1971, including the false statement , "As a result, we did not require the applicant to reanalyze the plant on the basis of the revised criteria. However, our technical review assessed the plant against the General Design Criteria now in effect and we have concluded that the plant design conforms to the intent of these newer criteria."

Entergy was in fact not in compliance then and not in compliance with them now as provided in current 2006 LRA submitted for relicensing.

Subsequent to the issuance of the Operating License, the NRC issued many Bulletins, Orders, Generic Letters, and Regulatory Guides (RGs). Most of the RGs address the NRCs interpretation as to meeting the requirements of the 1971 GDCs. Inference could be made that regardless of the legal basis of these orders, if one accepts them as legal, one must also accept the legal requirement of compliance to the specific relevant 1971 GDCs. However, the process clearly violated the APA regarding incorporation by reference on

regulations such as violation of 10CFR50.21[2], regarding equipment aging program scope and a methodology is entirely addressed under NUREGS with no legal force, and industry trade guidelines such as NEI 95-0-6 rev 10. Neither public involvement nor the most fundamental steps required under the APA were adhered to by either the applicant or the federal regulator.

Pursuant to section 3(a)(1) of the Administrative Procedure Act, 5 U.S.C. § 552(a)(1), as implemented by the regulations of the Office of the Federal Register, 10 C.F.R. Part 51, no material may be incorporated into a rule by reference unless the agency expressly intends such a result, 10 C.F.R. § 51.9, requests and receives the approval of the Director of the Office of Federal

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Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions—(i) The integrity of the reactor coolant pressure boundary;

(ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or

(iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in § 50.34(a)(1), § 50.67(b)(2), or § 100.11 of this chapter, as applicable.

(2) All nonsafety-related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1)(i), (ii), or (iii) of this section.

(3) All systems, structures, and components relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48), environmental qualification (10 CFR 50.49), pressurized thermal shock (10 CFR 50.61), anticipated transients without scram (10 CFR 50.62), and station blackout (10 CFR 50.63).

(b) The intended functions that these systems, structures, and components must be shown to fulfill in § 54.21 are those functions that are the bases for including them within the scope of license renewal as specified in paragraphs (a)(1) - (3) of this section.

[60 FR 22491, May 8, 1995, as amended at 61 FR 65175, Dec. 11, 1996; 64 FR 72002, Dec. 23, 1999]

Register, 10 C.F.R. §§ 51.1, 51.3, and the Federal Register notice indicates such specific approval, 10 C.F.R. § 51.9.

A brief review of statutory/regulatory construction confirms the method for incorporating (Regulatory Guides for example) Here 10 C.F.R. Part 50, Appendix E, n.1; NRC Staff Regulatory Guide 1.101, Rev. 2 (October, 1981), specifically endorses the incorporation by reference of the criteria and recommendations in NUREG-0654 as "generally acceptable methods for complying" with the standards in 10 C.F.R. § 50.47. The NRC emergency planning rules, however, include neither such a designation nor any express intention that NUREG-0654 be incorporated by reference.

In the absence of other evidence, adherence to NUREG-0654 may be sufficient to demonstrate compliance with the regulatory requirements of 10 C.F.R. § 50.47(b). However, such adherence is not required, because regulatory guides are not intended to serve as substitutes for regulations. TMI, ALAB-698, supra, 16 NRC at 1298-99. "Methods and solutions different from those set out in the guides will be acceptable if they provide a basis for the findings requisite to the issuance or continuance of a permit or license by the Commission." Id. at 1299, quoting Pacific Gas and Electric

Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-644, 13 NRC 903, 937 (1981). We believe the atomic licensing board erred in this decision. This error was confirmed in the recent ruling regarding storage of spent fuel requiring a NEPA proceeding compliance prior to the NRC approval.

Examples include Reg Guides that provide requirements for post-accident monitoring of the TMI incident. These Reg Guides describe a method that the NRC staff considers acceptable for use in complying with the agency's regulations" and delineate an acceptable means of meeting the GDCs as contained in 10 CFR 50 Appendix A. More than 100 RGs have been issued, amplifying the requirements of the GDCs. For example, the following words are directly from a Reg Guide 1.97

The U.S. Nuclear Regulatory Commission (NRC) developed this regulatory guide to describe a method that *the NRC staff considers acceptable* for use in complying with the agency's regulations with respect to satisfying criteria for accident monitoring instrumentation in nuclear power plants. Specifically, the method described in this regulatory guide relates to General Design Criteria 13, 19, and 64, as set forth in Appendix A to Title 10, Part

50, of the Code of Federal Regulations (10 CFR Part 50), "Domestic Licensing of Production and Utilization Facilities:

> Criterion 13, "Instrumentation and Control," requires operating reactor licensees to provide instrumentation to monitor variables and systems over their anticipated ranges for accident conditions as appropriate to ensure adequate safety.
>
> Criterion 19, "Control Room," requires operating reactor licensees to provide a control room from which actions can be taken to maintain the nuclear power unit in a safe condition under accident conditions, including loss-of-coolant accidents (LOCAs). In addition, operating reactor licensees must provide equipment (including the necessary instrumentation), at appropriate locations outside the control room, with a design capability for prompt hot shutdown of the reactor.
>
> Criterion 64, "Monitoring Radioactivity Releases," requires operating reactor licensees to provide the means for monitoring the reactor containment atmosphere, spaces containing components to recirculate LOCA fluids, effluent discharge paths, and the plant environs for radioactivity that may be released as a result of postulated accidents. The licensee has responded to these communications and states compliance with these communications and makes a commitment in the UFSAR.

In these examples, the applicant included the NUREG language in the FSAR, and by inference one could argue compliance in this case with GDC 1971. The applicant could not, however, use the aging management program to argue compliance with other cases, and certainly cannot utilize the program exclusively. The applicant is potentially holding open options that should be eliminated under the aging management rule. (contention 17)

A dispositive example is GDC Criterion 35--Emergency core cooling:

> A system to provide abundant emergency core cooling shall be provided. The system safety function shall be to transfer heat from the reactor core following any loss of reactor coolant at a rate such that (1) fuel and clad damage that could interfere with continued effective core cooling is prevented and (2) clad metal-water reaction is limited to negligible amounts. Suitable redundancy in components and features, and suitable interconnections, leak detection, isolation, and containment capabilities shall be provided to assure that for onsite electric power system operation (assuming offsite power is not available) and for offsite electric power system operation (assuming onsite power is available) the system safety function can be accomplished, assuming a single failure.

See CGC 35, Final design criteria (10 CFR 50 appendix A approved 1971, (36 FR 3256, Feb 20, 1971)

<u>However, the IP2 FSAR does not address Criterion 35 at all</u>. (contention 18) This essentially makes the CGC meaningless in its intent to protect the health and safety of the public and places the plant in clear violation of 10CFR50 Appendix A.

A detailed list of specific violations contained within 10 CFR Part 54 will be provided in supplemental submittal to this contention. An example is (contention 4) provided below from review of the limited material available to application by the licensee:

> Criterion 10, Reactor design, in which the reactor core and associated coolant, control, and protection systems must be designed with appropriate margin to assure that specified acceptable fuel design limits are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences.

FSAR Section 5.1.1.1.5 Reactor Containment provides the Criterion but with the following additions: The containment structure shall be designed (a) to sustain, ***without undue risk to the health and safety of the public,*** the initial effects of gross equipment failures, such as a ***large reactor coolant pipe break,*** without loss of required integrity, and (b) together with other engineered safety features as may be necessary, to retain for as long as the situation requires, the functional capability of the containment to ***the extent necessary to avoid undue risk to the health and safety of the public.*** If one reads these changes carefully they provide inappropriate latitude and judgment to the applicant as to what the A/E needs to do minimally satisfy the criteria.

A brief review of Tech Spec requirements contained in Exhibit 7 confirms that the misrepresented statement in the FSAR regarding GDC for Unit 2 is implemented *(see for example,* Reactor Coolant Leakage*)*. In LCO 3.4.13, reactor containment pressure leakage from primary to secondary ***systems is***

allowed in quantities up to 150 gallons per day. Such quantities are much larger that reasonable limits prescribed under General Design Criterion 35. This non-conservative quantity may have contributed to the root cause of the tube rupture accident—and is in tolerable as an acceptable quantity for age management of the RCS leakage.

A second example may be found in examination of General Design Crtieria 45, through General Design Criteria 6.2.1.2 Inspection of Emergency Core Cooling System Criterion is the following: Design provisions shall, where practical, be made to facilitate inspection of physical parts of the emergency core cooling system, including reactor vessel internals and water injection nozzles. (GDC 45). ***Here the trade organization inserted the words "where practical".***

The facts show that the applicant bypass of the rule, by multiple examples of failure to properly examine, and replace reactor core internal components with known susceptibility to failure. For example, the components such as baffle bolts, are routinely UT or VT'd during outages and often replaced. The process involves a machine that typically removes and replaces bolts in an automated procedure which adds two weeks to an outage. Yet—Indian

Point 2 relies on water chemistry in lieu of these tests. Why? To save millions of dollars per day in lost revenue at the expense of the health and safety of the public. See declaration of Ulrich Witte. This is a prima facie violation of 50 appendix A. The applicant attempts to placate the issue with the following words contained in the LRA "To manage loss of fracture toughness, cracking, change in dimensions (void swelling), and loss of preload in vessel internals components, the site will (1) participate in the industry programs for investigating and managing aging effects on reactor internals; (2) evaluate and implement the results of the industry programs as applicable to the reactor internals; and (3) upon completion of these programs, but not less than 24 months before entering the period of extended operation, submit an inspection plan for reactor internals to the NRC for review and approval." See section A.2.1.141 of the LRA report.

This language essentially takes the entire matter away from the public right to participate. It is another example of "Agree to agree"—and bypass of procedures required by law to be available to the public by Administrative procedures Act.

Alternative methods that act as proposals to comply with the federal rules for license renewal represent guidance only unless explicitly cited, and developed under the APA. Note the above examples meets the standards for specific contentions as cited above.

This serious and deliberate practice of rewriting federal code without public input and in clear violation APA invalidates the plans (even setting aside the issue of the lack of completeness and the actual vague description as they are described) proposed for the technical, safety, and environmental aspects of entire LRA.

The misrepresentation is routine, and the violations so acceptable, that the NRC only days ago published a leaking and aging 20-inch pipe as a "conduit" with a pinhole leak. Misrepresentation does violence to the entire intent of the agency and the applicant complying with specific rules of 10 cfr 54, and also violates the APA. For example, the 20-inch "conduit" was not considered part of the aging management program, or considered part of the environmental program, and the lack of inspection and maintenance of it is not consider unlawful. See exhibit 9, and we ask that this be considered Contention Number 19

The breadth and depth of these contentions are extreme. Even if each issue is classified in the narrow confines of the scope of the Rule (but not the GALL Report), the egregious conduct by applicant and the regulatory failure raises questions about any statement made in the LRA, or the CLB for Unit 2. The design basis is unknown, unmonitored, and the materiel condition also unknown. These were the exact bases for permanent closure of Millstone Unit 1. These finding for Indian point 2 are clearly analogous, and a new superseding license should without question be denied.

For those issues raised here, no forum is available to adjudicate the magnitude of the misrepresentation and unlawful acts. One wonders how can a board that is selected by the Commission be allowed to judge the acts of the commission (such as the 1992 letter).The APA under chapter 5 provides for adjunction in the federal court for exactly this kind of broad unlawful act.

Contention 20-The License Renewal Application (LRA) fails to provide sufficient detailed information regarding technical, safety and environmental pendant issues.

The license renewal application submitted by applicant on May 3, 2007 and subsequently revised on June 22, 2007 fails to meet the threshold of providing explicit specific technical information as called for under 10 C.F.R. § 2.309, which plainly calls for *"how the applicant will comply with the requirements* promulgated in CFR54.21 and requires a complete description of each program and how the applicant will specifically address aging management." In the submitted LRA, how will the Applicant comply with the requirements which are not provided/included in the LRA other than via non- specific conclusory statements.

Specific examples of incomplete and inadequate technical information include, inter alia the Equipment Environmental Qualification Program, the Flow-accelerated Corrosion Program, where the Applicant provided a one paragraph description of its planned program, which essentially credited the current Flow—accelerated corrosion ("FAC) program with no further explanation. Here the applicant points to the present Current Licensing Basis ("CLB") as sufficient. This is an ambiguous and generic approach that is rejected under NUREG 1801, which instead establishes as within scope, a specific and particularized program that defines component and system

scope, inspection criteria, methodology, frequency and remediation commitments when acceptance criteria for FAC inspections are not met.

This contention is fundamentally material to the Indian Point License Renewal Proceedings as a matter of law. By the Applicants failure to comply with the CFR rules set forth regarding Age Related Management Programs it is virtually impossible to establish the legal or technical integrity regarding each of these programs. This raises fundamental and material issues to the LRA contents as submitted by the Applicant.

Contention 21-Co-mingling three dockets, and three DPR licenses under a single application is in violation of C.F.R. Rules, Specifically 10 CFR 54.17 (d) as well as Federal Rules for Civil Procedure rule 11(b).

The applicant has violated rule 10 CFR §54.17 (d)

> *An applicant may combine an application for a renewed license with applications for other kinds of licenses.*

By co-mingling two applications for license renewal under one filing while interjecting the decommissioning status of Indian Point Unit 1 presently shut down and in Safe Stor for more than 30 years. IP2 and IP3 hold completely separate licenses to operate nuclear reactors. Each license is further held by a separately owned and controlled Limited Liability

Corporation. In addition, the applicant violates procedure governed by 10 C.F.R. by not distinguishing the current Safe Stor status of Unit 1 decommissioning, and in fact seeking approval to make use of Unit 1 systems and/or components/infrastructure for extended operation of Unit 2, and to a lesser degree Unit 3.

Co-mingling applications is particularly material to Indian Point 2 and 3 given (1) separate dockets **[50-247 and 50-286]**, (2) separate DPR numbers, (3) separate owners and License holders for most of their first 30 years of operation, and (4) separate Architect Engineers. The NRC itself at the annual assessment meeting has admitted the plants have entirely different histories, different design control and configuration management programs. The NRC *holds separate reviews to discusses reactor licensees separate issues before opening the meeting up to public questions.*

Indian Point 2 and Indian Point 3 had and continue to have distinctly different Current Licensing Bases [CLB], and have evolved away from each other via a multitude of different design modifications. *This contention that Entergy has wrongfully commingled and conjoined the applications for IP2 LLC and IP3 LLC is buffered and strengthened by the fact that the NRC*

itself has assigned separate onsite plant inspection teams to each individualized reactor.

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Indian Point Unit 3 was on the NRC watch list during the 90s. Indian Point 2 has been repeatedly in "white status" for the past 10 years. The plants have been subject for over 30 years to different corrective action programs, and different design control programs and each have their own set of active licensing commitments with respect to their Current Operating License and plant technical specifications.

Contention 22-The NRC violated its own regulations by accepting a single License Renewal Application made by the following parties: Entergy Nuclear Indian Point 2, LLC ("IP2 LLC") Entergy Nuclear Indian Point 3, LLC (" IP3 LLC"), and Entergy Nuclear Operations, LLC. (ENO).

Issue Statement:

Entergy Nuclear Northeast has submitted substantial changes to the status affecting who the holder of the license is on July 30, 2007, weeks after submitting application for license renewal on April 30th, 2007. Therefore, parties to LRA are expost facto invalid. Based upon the documents submitted in the July 30, 2007 letter, the current license does not correctly

describe the owners of the Unit 2 facility, the operators of the Unit 2 facility are not un ambiguous and leaves the Stakeholder in the dark regarding matters relevant to future decisions regarding extended operations, and what actual company is operating the plant in accordance to the superseding license being proposed.

ENNE Inc. cannot be a party to the LRA because no direct relationship exists between the licensees and ENNE in providing direct management involvement in, for example, the delay of the meeting with the NRC because ENNE stated they were unable to supply documentation being asked for. This appears to be a direct violation of 10CFR54.35 "record keeping requirements" and 10CFR54.37, "additional record keeping requirements", specifically licenses DPR-26 and DPR-64, which are respectively owned and directly controlled, individually and severally by IP2, LLC and IP3, LLC respectively, and jointly by ENO.

ENNE is currently not the operator, or direct owner of the license, nor does it have direct control over the license. In the case of Indian Point 2, the immediate owner is Entergy Nuclear IP2, LLC. This LLC is in turn owned by Entergy Nuclear Investment Company III, Inc., which is a wholly-owned

subsidiary of Entergy Nuclear Holding Company #3 that, in turn is a wholly-owned subsidiary of Entergy Nuclear Holding Company. Entergy Nuclear Holding Company, Inc., is a direct subsidiary of Entergy Corporation. The structure through which Entergy owns the IP3 LLC is even more complex because the LLC that owns these plants is, in turn, 50 percent owned by two other indirect Entergy subsidiaries, Entergy Nuclear New York Investment Company I and Entergy Nuclear New York Investment Company II. Entergy Nuclear New York Investment Companies are themselves subsidiaries of Entergy Nuclear Holding Company #1 which, in turn, is a wholly-owned subsidiary of Entergy Corporation. Another Entergy subsidiary, Entergy Nuclear Operations, Inc. ("ENO") operates Entergy's nuclear units in the Northeast.

Case law indicates and the NRC staff have expressed serious doubts as to NRC ability to hold a parent corporation responsible for the liabilities incurred by a subsidiary.

A particular concern is that each intervening LLC can act as a barrier to extending liability to the parent corporation that contains most of the assets. Several separate litigations, or a very large and complex single litigation to

pierce all the corporate veils back to the parent corporation with the bulk of the assets . (*Synapse Energy Economics, Inc Financial Insecurity pg 12*).

Just two days prior to formal application acceptance by the NRC staff, (but six weeks after the last application modification dated June 22, 2007) was announced in the Public Register by the NRC on August 1, 2007 ENO had filed only days before for a transfer of , Indian Point 2 license DPR-26 and Indian Point 3 license DPR-64 to ENO, an indirectly related corporation, which would result in substantial reorganization of Entergy's corporate structure, and LLC holdings effecting the fiscal responsibility and liabilities of Indian Point 1, Indian Point 2 and Indian Point 3.

This whole overly complicated corporate structure overlay to other corporate structure overlay is a kin to Abbot and Costello's who's on first, and who's on second, but the humor dissolves when one carefully examines the motivation and the consequences to the health and safety of the public.

The motivation of this requested license transfer can be made by inference by comparing the historical actions by the parent company in how Entergy handled the fiscal liability associated from the Katrina events.

In the aftermath of Katrina, Entergy New Orleans, a subsidiary of the Entergy Corporation, filed for Chapter 11 bankruptcy, even though the parent corporation continued to have ample finances. This corporate hide and seek, resulted in Entergy Corporation receiving massive government bailouts from taxpayers monies, and ratepayers in New Orleans received greatly increased energy costs, while indirectly related Entergy Corporations continued to reap large profits.

The NRC has no statutory authority to require a licensee in bankruptcy to continue making safety-related or decommissioning expenditures or to pay retrospective Price-Anderson Act premiums. Therefore, any transfer of the licenses in the middle of an LRA proceeding brings into scope Entergy's entire corporate structure and complex financial qualification review to continue operating the licenses during the license renewal period of 20 years.

In addition this transfer application timing, may be intentional so as to create the opportunity for the NRC staff to do less than adequate review as was found by the GAO in previous reviews and diverts the NRC staff's full attention from the technical requirements and assurances of public health and safety during the LRA reviews, to devote substantial resources and

attention for a complex financial qualification review, whose sole purpose is to protect the profits of a corporation. These issues are not distinct. Fiscal responsibility to act with sound mature decisions based solely on protecting the health and safety of the public are obviously closely intertwined with the fiscal resources clearly available and guaranteed to do so.

The General Accounting Office has found that the regulatory agency has done an inadequate analysis regarding the fiscal responsibility during license transfers in the past, affecting intera alia the commitments or lack thereof to such items as the decommissioning funds (specifically relevant to Unit 1 and Unit 3 license renewal) The proposed transfer of the license materially affects the fiscal resources, and clear liability for each of the three Indian Point Units.

If the NRC would approve this proposed license transfer in the middle of the LRA review, it would add undue confusion and complication which may result in harm to the Stakeholder rights, in turn resulting in potential harm to the public's health and safety.

Contention 23-The Decommissioning fund inadequacy and the plan for Entergy to mix funding across Unit 2, 1 and 3 violates commitments not acknowledged in the application and 10 CFR rule 54.3.

Issue Statement:Indian Point2 has insufficient decommissioning trust fund balances, as required by 10 CFR 50.75, to restore the Indian Point site, including removal of underground radioactive contamination in the bedrock under the plant.

Per NRC Section PART 50 Sec. 50.75 Reporting and recordkeeping for decommissioning plan Indian Point's decommissioning funds are inadequate to clean up the bedrock site from the ongoing underground leaks. The costs for complete decommissioning and cleanup of the site must be adjusted to reflect significant changes in the contamination streams including the large underground radioactive leaks.

BASIS FOR CONTENTION

The Indian Point 2 decommissioning fund has not been adjusted to take into consideration the enormous, newly discovered, underground radioactive contamination. The current decommissioning plan for aging management of

the plant is inadequate to clean up the bedrock site and is not addressed in the Applicant's LRA. The costs for complete and correct, decommissioning and cleanup of the site must be adjusted to reflect the large underground radioactive leaks, as required by:

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> *Section PART 50 Sec. 50.75 (2) (e)(1)(v); any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and any material changes to trust agreements...., or where conditions have changed such as:*
>
> *Factors to be considered in submitting this preliminary plan information include:*
>
> *(iii) The current situation with regard to disposal of high-level and low-level radioactive waste;*
> *(iv) Residual radioactivity criteria;*
> *(v) Other site specific factors which could affect decommissioning planning and cost.*
> *(1) Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site.*
>
> *These records may be limited to instances when significant contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations. or certification is used.*

It has been acknowledged by the NRC that numerous systems, structures and components can experience undetected radioactive leaks over a prolonged

period of time and that "relatively large volumes of contamination above the decommissioning release limits" can result in "notable increases in remediation time and costs" in the sums of hundreds of millions of present value dollars. The past and present leaks at Indian Point 2 provide indicia of continued and future leaks. In 2006 Don Mayer, Director of Special Projects for Entergy said that "The underground area of the Indian Point site has contaminated water that is 50 to 60 feet deep,...and there is also another area, or underground plume, that is about 30 feet wide by 350 feet long."

CONTENTION IS WITHIN SCOPE IN THE LICENESE RENEWAL PROCESS

In the Matter of POWER AUTHORITY OF THE STATE OF NEW YORK and ENTERGY NUCLEAR FITZPATRICK LLC, ENTERGY NUCLEAR INDIAN POINT 3 LLC, and ENTERGY NUCLEAR OPERATIONS, INC. (James A. FitzPatrick Nuclear Power Plant and Indian Point Nuclear Generating Unit No. 3) Docket Nos. 50-333-LT and 50-286-LT regarding the license transfer to Entergy the Nuclear Regulatory Commission held that decommissioning short fall "did not fall within the scope of this license transfer proceeding, as Entergy Indian Point was not seeking in its

application to renew or extend the Indian Point 3 operating license, nor does its pending application assume such a request.

The Commission further states, "that regarding decommissioning Stakeholders have the right to seek intervener status in any application for license renewal or license extension that Entergy Indian Point may file." Therefore based on the Commission's own decision the issue of whether there are adequate decommissioning funds is within scope of the licensing renewal proceedings.

CONTENTION RAISES A MATERIAL ISSUE OF FACT OR LAW

The method of cost analysis of adequate decommissioning funds must be clearly stated in the LRA. The Applicant's LRA fails to outline an adequate decommissioning and clean up plan in light of the large amounts of underground radioactive waste, for which the source has not yet been identified, and therefore the extent of the contamination remains unknown.

The Applicant initiated actions to pump out the Unit 1 Containment Spray Sump through a filter/demineralizer system, designed to remove Strontium

90, and investigate the source and means of the Strontium 90 groundwater contamination. This raises the question, is Entergy in violation of the terms of their SAFE STOR for IP1? When the Applicant started to remove the underground leaks by pumping the radioactive contamination out of the ground, it caused more radioactive material to be released. Therefore the NRC ordered the Applicant to stop removing the radioactive effluent from ground, and to monitor it while the issue was further investigated. Therefore, the NRC has ordered that the contaminated materials remain under the plant in the bedrock, until some date uncertain when Applicant finds a method to remediate and stop the leaks. Until that time radioactivity will continue to leach into the groundwater and the Hudson River.

At a recent NRC meeting in Croton, NY, NRC officials stated that since they could not dig the radioactive contamination out, and could not blast it out, that they would have to chisel out the radioactive tritium, cesium and strontium 90 from the bedrock.. Such remediation work, (which is required to bring the reactor site into compliance with NRC guidelines and Section PART 50 Sec. 50.75 will require additional protective actions during the remediation work to keep radioactive contaminants from migrating off site,

and exposing both humans and the environment to unnecessary additional exposure risks and pathways.

In the NRC Liquid Radiation Release Lessons Learned Task Force Final Report ML062650312 2006-09-013.4.3, it was concluded and recommended that, in some cases, such as Indian Point, the relatively large volumes of contamination above the decommissioning release limits resulted in notable increases in remediation time and costs. The NRC staff estimates the increased cost to be in the tens of millions of dollars, although specific actual cost data is not available to the staff.

The decommissioning reports for Indian Point 2 from 2002 to 2006 indicate that the Urban Inflation rate has been 2.9% per year, yet the adjustment of the decommissioning funds for IP2 has only been 1% per year. However, the decommissioning reports falsely state the escalation rate is 3.0%. The decommissioning funds for Indian Point have a substantial shortfall, as they are not even keeping up with the rate of inflation, as evidenced in the March 29, 2005 Report BVY-05-033/NL-05-039/JNP-05-005/ENOLtr.2.05.023 and the March 29, 2007 Report ENOC-07-00007.

In addition, the storage of an additional 20 years of waste, either in the pools or in dry cask storage increases the risk to human health and safety far beyond the original Design Basis for this site. Spent fuel pools are not designed to meet the basic minimum requirements for structural stability, as is outlined in the siting criteria for new reactors in place at the time the NRC granted the original license, and it thus becomes imperative that the structural degradation indicated by the leaks of both Spent Fuel Pools 1 and 2 be addressed and remediated before the license renewal application is allowed to move forward. It is further pointed out, that IP2 was granted a significant rack re-alignment exemption before it even began operation, that further contributes to the continued degradation of the spent fuel pool, which in turn increases remediation and decommissioning costs.

Moreover, the dry cask storage facility at Indian Point presents an additional hazard and risk to New York (and other Northeastern states) that will very possibly continue for centuries. The costs of assuming these burdens cannot be placed on the taxpayers, but should be assumed by the applicant which profits from the operation. These additional costs must be added to the decommissioning fund.

Even the Nuclear Energy Institute (NEI) recommends that although NRC regulations do not require the inclusion of used-fuel storage costs in decommissioning funds, companies should include such costs in their estimates, because no federal repository or interim storage facility is available.

The amount of decommissioning funds required to properly meet the requirements of the NRC Section PART 50 Sec. 50.75 are a material issue of fact and law, and a full hearing on such costs and decommissioning funds must occur prior to the NRC approving a new superseding license for 20 years for IP2. The Stakeholders have raised a material matter of fact or law, thus meeting the burden for further review.

Contention is Supported by Facts and/or Expert Opinion

Stakeholders have met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process, and hearings lay out some basic

criteria that a stakeholder must meet to have a contention accepted for further review:

> *Section 2.309(f)(v) requires "a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the H petitioner intends to rely to support its position on the issue."*

Additionally, it is pointed out that the rules and regulations dealing with hearings and contentions accepted therein goes further to define specifically the minimum burden of proof necessary to have a contention accepted for further review and scrutiny:

> *An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality as that is necessary to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).*

The contention more than meets the minimal standards necessary for acceptance. The petitioner in this case has made "a minimal showing that

the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate."

The Stakeholders assert that the NRC cannot approve Indian Point 2's LRA because it does not clearly define an aging management program with regard to the adequacy of decommissioning funds or methodology of decommissioning, in light of the underground radioactive leaks, the addition of dry cask storage on site, and the addition of low-level radioactive waste storage on site, due to the fact that Barnwell is closing in 2008, which by inference affects the LLC's budget for renewal and superseding license within section 50.13"completeness and accuracy of the information", as it affects the continued aging and safe operations of Indian Point 2.

Contention 24-Inability to Access Proprietary Documents Impedes Adequate Review of Entergy Application for License Renewal of IP2 LLC and IP3 LLC.

Citizens who believe they could be negatively/adversely affected/impacted by a License Renewal Application (LRA) have a right to file a Petition to

Intervene and a Formal Request for Hearing. (*§ 2.309 Hearing requests*) There are specific 10 CFR Rules and Regulations which define and spell out the duties and responsibilities of a citizen wishing to use their right to formally intervene in the process, and primary among these rules and regulations, is the filing of a contention. These contentions to be accepted must meet a minimal standard of proof in raising a contention of law or fact which is supported by a methodical presentation of documents or expert witness testimony in support of the contention. In short, unlike and allegation, contentions must have some supportive evidence that there exists a true difference of opinion of fact or law that falls within the scope of the LRA.

From the date of acceptance of a LRA for review as is witnessed by notice in the Federal Registry, interested stakeholders normally have exactly 60 days to submit their contentions with proper evidence, and formally request a hearing and status as and intervener. Meanwhile, Licensee took two years to prepare the application which creates a front door inequity in the process that prejudices the process in favor of the licensee.

The NRC liberal granting of proprietary status to nuclear industry documents and portions therein (including massive redactions [on the claim of proprietary information] in Entergy's LRA's for IP2 LLC and IP3 LLC and underlying supporting documents) make it impossible for stakeholders to adequately review the LRA documents and form/support their contentions in the limited window afforded the stakeholder community. The time necessary to file FOIA's, and to contest a licensees claim to proprietary entitlement in keeping documents from public view, or having portions of the LRA and underlying documents redacted takes longer than the time allotted for stakeholders to prepare and support their contentions in a fashion adequate to have them accepted for further comprehensive review.

Various formal requests for additional time to adequately prepare and submit Petitions to Intervene and Formal Requests for Hearing have routinely been denied by the NRC, despite numerous requests for and extension of time by citizen groups such as FUSE USA, and four United States members of Congress. Without adequate time to access currently unavailable and/or un-redacted versions of documents, including the LRA's, FSAR's and UFSAR's for IP2 and IP3 hidden under the guise of proprietary information, stakeholders and citizens who believe they could be adversely impacted by

the re-licensing of IP2 and IP3 are defacto denied their rights to redress under the laws of the United States of America, and under the guidelines of the NRC 10CFR Code of Regulations meant to protect human health and safety.

The time clock for submission of a Formal Request for Hearing, and Petition to Intervene should not begin until stakeholders have access to a full and complete set of un-redacted versions of the LRA and its underlying documents, including but not limited to the FSAR's (all versions), USFAR's (all versions), the most current and up to date company and/or NRC version of the Current Licensing Basis (CLB) which is described in 10 CRF 54.3 as:

> *Current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and*

enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.

Basis for Contention

As stakeholders and property owners living within 3, 10 or 50 miles of the Indian Point facility owned by two unique and separately owned Entergy Limited Liability Corporations, it is imperative in measuring any suspected and/or adverse risks/effects associated with the proposed actions sought in Entergy's LRA for IP2 LLC and IP3 LLC to have a clear and understanding of what the License Renewal Application seeks, and be capable of measuring the reliability and adequacy of the aging management plans contained therein.

In measuring the potential risks and/or adverse effects associated with the proposed action (license renewal) the stakeholders have done due diligence in working their way through the myriad complexities that are the Entergy LRA for IP2 LLC and IP3 LLC. Citizen volunteers, FUSE USA staff, attorneys and industry experts have dedicated thousands of man/woman hours to fully understanding the repercussions of a 20 year license renewal on the community surrounding Entergy's Indian Point.

Despite best efforts on the part of the stakeholders, Entergy's claims of Proprietary Information, and the NRC granting of their request for same have created a situation where petitioners are unable and incapable of properly forming and supporting certain contentions we wish to raise in the limited window of opportunity being given by the NRC.

One example of the problems created by Entergy's Claim of the information being proprietary in nature can be found in a cursory review of the most recent UFSAR's for IP2 LLC and IP3 LLC. Entergy in their LRA refer to the safety analysis in these documents in justifying many aspects of the aging management program (or lack there of) that will be relied upon in the 20 year period of operation should their LRA be granted. The redacted and publicly available versions of the USFAR's for IP2 and IP3 have over 80 percent of Chapter 14 which is the Safety Analysis has been redacted. If petitioners cannot review Entergy's safety analysis, we cannot formulate opinions based upon the facts on the adequacy of their proposed aging management plan as outlined in the LRA.

Further examples revolve around industry documents that Entergy relies upon in the formulation of their aging management plans (and defense of same) that are not available for review under the same proprietary claims. We know for instance that there are issues regarding Boraflex degradation/failure in the spent fuel pools which brings into question the reliability and workability of Entergy's aging management plan for the spent fuel pools at IP2 and IP3. A industry investigation into this issue, and the EPRI report on the findings is not publicly available, and is classified as proprietary in nature, even though tax payer funds (provided by DOE) were used in the creation of said work product. A challenge to this proprietary claim could take months, even years to resolve.

One FOIA filed with the DOE was fulfilled in part, with additional document delivery promised by the DOE, if possible, by October 27, 2007 which was 26 days after NRC original deadline for the filing of contentions. When all was said and done, this particular FOIA request was completed on November 9th, 2007. The reason for this delay, is that the documents had to first be reviewed for proprietary information, and if necessary partially redacted before being made available. Included as exhibit to these filings is a copy of the letter from the DOE to Sherwood Martinelli, Director of

FUSE USA used to formally request that NRC grant and extension of time to file a Formal Request for a Hearing and Petition to Intervene (with contentions). Said request for and extension of time to file asked for 60 days from the date the DOE fulfils its commitments under the Federal FOIA guidelines. Formal request was only partially granted.

(i) It is a reasonable expectation and contention that the citizens and petitioners, interveners/stakeholders' have fair and adequate access to records and documents that are being used in presenting and justifying the important issues found in Entergy's LRA for IP2 LLC and IP3 LLC. Unless more time if afforded communities to resolve licensee, nuclear industry and governmentally caused delays in gaining fair and adequate access to the documents necessary to perform a full and complete review of the application, stakeholders cannot adequately formulate, create and defend the contentions they are allowed by law and regulation to raise.

Contention is Within Scope in the License Renewal Process for Entergy's LRA for IP2 LLC and IP3 LLC

Safety analysis and aging management go too the core of any LRA submitted to the NRC. The ability to investigate and understand the

reliability and quality of Entergy's Safety analysis assumptions/claims, and evaluate the reliability of their proposed aging management plans for the 20 year period of additional operation are crucial to adequate public involvement in the License Renewal Application Process, and should not be mitigated or minimized in the name of expediting the process, or in the name of NRC calendar. The current licenses for IP2 and IP3 do not expire until 2012 and 2015 respectively, which means granting and extension of time to file formal requests for a hearing and petitions to intervene (with contentions) would not negatively impact either the NRC or their licensee in any meaningful fashion. Conversely, denying a reasonable request for and extension of time to file that would allow the petitioners/interveners/stakeholders adequate chance to resolve issues surrounding industry and Entergy claims to proprietary privilege will create and cause irreversible harm too petitioners and our community.

A community and its citizen's right to be involved in the licensing process is not only in scope, but codified into the 10 CFR rules and regulations that govern the re-licensing process. Further, our rights to redress are protected/preserved under the first amendment of the Bill of Rights, and cannot be marginalized in the name of licensee or NRC convenience.

Contention Raises Both Material Issues of Fact and Law

First, we must look to the Constitution and the Bill of Rights in ascertaining the fairness of any rules or regulations promulgated under the authority granted an agency (NRC) by the Congress of the United States of America. Specifically, we must look at the First Amendment which states:

> *Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.*

NRC authority to promulgate and enforce rules and regulations stems by proxy from a direct act of the Congress of the United States of America. Since the Constitution and Bill of Rights preclude Congress from making no law which would abridge the peoples right to peaceably petition the government for redress of grievances, the NRC that was created by Congress cannot legally exist, create, draft or enforce any rule or regulation that defacto abridges the peoples right to a redress of grievances.

The very nature of the NRC's relicensing rules and regulations as codified in 10 CFR, specifically as relates to what is and is not within scope, and the time allotted for citizens to adequately address and submit their contentions defacto abridges the peoples right to petition the government for a redress of grievances.

There are numerous laws drafted by Congress which show their intent to preserve the individual rights of citizens at all costs against unfair, unjust and illegal ordinances and regulations.

See 42 U.S.C. § 1983 it is, in relevant part, as follows:

> *Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State . . . subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress.*

In invoking *§ 1979 as revised in 42 U.S.C. § 1983* petitioners contend that its protection of "rights, privileges, or immunities secured by the Constitution" encompasses what "due process of law" and "the equal protection of the laws" of the First Amendment guarantee against action by the NRC. denial of adequate and unfettered access to redress by providing citizens inadequate time to submit our Formal Request for Hearing, Petition to Intervene (with contentions) is a blatant attempt by Entergy, NEI and the NRC to deprive us of or marginalize our rights and privileges secured by the Constitution.

Never in the history of mankind has one agency and one industry in their perverted use of logic attempted to visit more harm in the promulgation, implementation and enforcement of rules and regulations. NRC's pixilated use of a sixty day time constraint in submitting contentions for redress by the citizens is a pernicious mischief so great as to state categorically that never in the history of states and sovereigns in politics and jurisprudence has one agency acted in a more egregious and negligent fashion than has the NRC in their attempts to conduct a License Renewal Process deliberately designed with the assistance of Nuclear Energy Institute (NEI) intended to eliminate any meaningful citizen involvement, intended to thwart all chance of real

redress as is guaranteed by the Constitution and Bill of Rights. There is but one singular goal, and that is to approve the License Renewal Applications of their licensees, irrespective of a community's wishes, regardless of the level of risk associated with the action.

Entergy's hiding of crucial documents behind the veil of Proprietary Privilege, the NRC's granting of privilege without question, coupled with NRC staff's refusal to grant reasonable requests for an extension of time to file so that we might deal with the legal roadblocks presented by Entergy's claim of Proprietary Privilege are the very acts that *42 U.S.C. § 1983* was meant to protect against.

Entergy has deliberately and knowingly caused another person (NRC Staff) to hide and/or withhold documents from an official proceeding (License Renewal Application Process). Entergy's wrongful and abusive claim to and use of Proprietary Privilege is targeted at thwarting adequate participation by petitioners in the official proceeding of the License Renewal Application process, and official proceeding of the Nuclear Regulatory Commission, and agency of the government of the United States of America. NRC's blind granting of said privilege without question of their licensee's entitlement to

same makes both parties guilty of an attempt to withhold and/or alter documents meant for use in and official proceeding,

> *18 U. S. C. §§1512(b)(2)(A) and (B) makes it a serious crime to "knowingly ... corruptly persuade another person ... with intent to ... cause" that person to "withhold" documents from, or "alter" documents for use in, an "official proceeding."*

Further, the NRC has to weigh a licensees claim of Proprietary Privilege against the publics need to know. It is imperative in making a decision to grant a request for Proprietary Privilege against the right of the public to be fully appraised of the bases for, and the potential effects, risks and health concerns associated with the proposed action .

(ii) § 2.390 Public inspections, exemptions, requests for withholding

See subsection B (5) (6)

> *(5) If the Commission determines, under paragraph (b)(4) of this section, that the record or document contains trade secrets or privileged or confidential commercial or financial information, the Commission will then determine whether the right of the public to be fully apprised as to the bases for and effects of the proposed action outweighs the demonstrated concern for protection of a competitive position, and whether the information should be withheld from public disclosure under this paragraph. If the record or document for which withholding is sought is deemed by the Commission to be irrelevant or unnecessary to the performance of its functions, it will be returned to the applicant.*

> *(6)Withholding from public inspection does not affect the right, if any, of persons properly and directly concerned to inspect the document. Either before a decision of the Commission on the matter of whether the information should be made publicly available or after a decision has been made that the information should be withheld from public disclosure, the Commission may require information claimed to be a trade secret or privileged or confidential commercial or financial information to be subject to inspection under a protective agreement by contractor personnel or government officials other than NRC officials, by the presiding officer in a proceeding, and under protective order by the parties to a proceeding. In camera sessions of hearings may be held when the information sought to be withheld is produced or offered in evidence. If the Commission subsequently determines that the information should be disclosed, the information and the transcript of such in camera session will be made publicly available.*

From the onslaught of the Entergy LRA process for IP2 LLC and IP3 LLC, the NRC has failed in their fiduciary duties and responsibilities to members of the public when it comes to Entergy's claims of Proprietary Privilege. Instead of making a decision based on the publics need to know weighed against Entergy's desire to hold a competitive edge in the nuclear industry, NRC staff as a matter of practice simply granted all requests by Entergy for Proprietary Privilege. NRC's in house protocols in this regard fly in the face of their own regulations, and have placed members of the public at a grave disadvantage protecting our rights to redress in this case.

We as the public in the host community are being told by both Entergy and NRC to simply TRUST THEM. Past historical review of Indian Point, and the regulatory problems associated with the site, show there is reason not to trust either the licensees or the NRC. As President Ronald Reagan said, "trust but verify". We cannot verify, cannot ascertain the accuracy of Entergy's Safety Analysis, cannot accept their proposed aging management analysis without a full review of the application and its underlying documents. Further, and germane to this contention, we cannot adequately and timely prepare our contentions without this unfettered access to the full record in this case.

It is clear, that in the case of a LRA for two aging reactors with known Flow Accelerated Corrosion (FAC) issues, known fatigue issues, known cross cutting issues, and a host of other safety and equipment failures that the peoples right and need to know should out weigh Entergy's need for secrecy, should outweigh the NRC desire to keep to a tight time schedule in the relicensing process.

Contention is Supported By Facts and/or Expert Opinion

Intervener has met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process, and hearings lay out some basic criteria that a stakeholder must meet to have a contention accepted for further review.

Section 2.309(f)(v) requires,

> *...a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the H petitioner intends to rely to support its position on the issue.*

The contention as written clearly presents a concise statement of the alleged facts and matters of law. Without first resolving the matters surrounding production of documents, without first reaching agreement on what documents are or are not entitled to Proprietary Privilege, it is impossible for interveners to adequately review Entergy's LRA in a meaningful fashion and submit our contentions in a timely fashion.

The right to add additional supporting documents, and name industry expert witnesses and the scope of their testimony is fully reserved herein.

Additionally, it is pointed out that the rules and regulations dealing with hearings and contentions accepted therein goes further to define specifically the minimum burden of proof necessary to have a contention accepted for further review and scrutiny:

> *An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality as that is necessary to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).*

It is clear here, that this contention more than meets the minimal standards necessary for acceptance of this contention. The petitioner in this case has made "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate."

Contention Raises a Material Matter of Fact or Law

The adequacy of a 60 day time period from the date of acceptance of Entergy's LRA as witnessed by notice of same in the Federal Registry is by fact subjective, and up to interpretation. Entergy's entitlement to their claim of Proprietary Privilege is, or should be subjective in scope. The effect that Entergy's claim of Proprietary Privilege has on our community's ability to disseminate and understand the LRA and submit contentions in timely fashion is also a subjective issue of fact that should be decided by and impartial board or in a court of law. The constraints and limitations NRC time constraints have placed on our community's right to redress is a matter of law in dispute, and should also be resolved by a board or in a court of law.

Contention 25-Regulatory Guidance contained in 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope where members of the public have specific and direct substantiated concerns

Regulatory Guidance contained in 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope where members of the public have specific and directly

substantiated concerns. The Stakeholders and elected officials (including, Senator Hillary Clinton, Governor Eliot Spitzer, Congresswoman Nita Lowey, Congressman John Hall, Congressman Eliot Engel, Congressman Maurice Hinchey, as well as Westchester, Rockland, Putnam and Dutchess Counties, and the municipalities of Village of Croton-on the Hudson, City of Beacon, Village of Ossining, Town of Cortland, Town of Ramapo, Town of Stony Point, and Town of Putnam Valley) call for an Independent Safety Assessment (ISA) of Indian Point \ systems, components and programs beyond the narrow recommendations of existing regulatory guidance, and NRC current mode of oversight, which is increasingly reducing accountability and transparency. Stakeholders assert that these issues must be fully addressed and resolved prior to final license renewal. These areas of scope include 4.16 KV electrical distribution system, Control Ventilation, containment ventilation.

Contention 26-The LRA, in which Indian Point 2 LLC seeks a new superceding license to replace the existing license, is incomplete and should be dismissed.

Instead of presenting required Time Limiting Aging Analysis (TLAA) and adequate aging management plans to deal with known plant degradation

issues application instead seeks to provide commitments in the licensing review process to conduct certain TLAA, and implement as yet unknown Aging Management Plans at some future date and time after license renewal is granted. The NRC job is to identify shortcomings in the application, identify unaddressed issues in the application, not to negotiate with the licensee in the review process for a list of future commitments that unenforceable by law. A TLAA was done to address a known aging issue, or it was not. An aging management plan exists or it does not. If it does not exist, if the analysis has not been done, the application is incomplete, and overlooking that inadequacy by creating a future commitment to complete it amounts defacto to an agreement to agree to vaguely defined terms at uncertain dates at some future point in time.

NRC 10 CFR 54 in part requires a license to:

> A) Conduct a Time Limiting Aging Analysis (TLAA) for primary equipment and components subject to fatigue that are determined to be in scope, and further,
>
> B) Requires as a PART OF THE LICENSE RENEWAL APPLICATION that adequate aging management plans be included in

the application to deal with any parts, components, systems that are subject to aging issues such as fatigue that are within scope.

Said regulations deliberately do not provide a mechanism for a plan to be submitted at some later date, and allowing such a future commitment not only bars public Stakeholder involvement in the process, thereby removing the review of said aging management plans from public scrutiny, but violates the intent if not the regulation itself. LRA are supposed to be complete, and address ALL ISSUES involved in being granted a new superceding license. Making a promise/commitment to address the issue later on is not the intent of the law. Further, the NRC is now realizing that many previous licensees who have moved through the re-licensing process are finding it impossible to meet the deadlines set for those future commitments. Even more disturbing, is that the NRC is discussing the possibility of granting these licensees relief from those very commitments, in a classic example of out of sight out of mind. This process needs to be transparent, and the NRC needs to act as a regulator who abides by and enforces their rules and regulations, rather than acting as and arbiter and deal maker. The License Renewal Process is a serious and regimented process, not a rerun of "Let's Make A Deal".

The NRC has, in past LRA proceedings allowed the Applicant to make a future commitment to

A) Perform an assessment of this known fatigue issue, and

B) To make a future commitment on the part of the Applicant to devise and acceptable aging management program for this known issue at some later date after the license renewal application has been approved.

The Stakeholders in the current LRA proceeding regarding IP2 contend this method is unacceptable and makes the license unenforceable. The 10 CFR rules are very specific...licensee's must have an aging management plan in place for review. Agreeing to keep and eye on things while you invent/create and aging managing plan does not meet the regulations as they now are written and exist.

In the current LRA proceeding and approval process the Applicant makes a commitment to the NRC to vaguely do something left basically undefined at some uncertain future date and time after a new superceding license has already been issued. This amounts to nothing more than an agreement to

agree later on a process that remains, at best, vaguely defined. The law if very established, that such agreements in the form of contentions are not enforcible.

The thousands of letters of relief from NRC rules, and licensee commitments show that this is not acceptable. As example, it is pointed out that Indian Point 2 made a commitment when first licensed back in the early 70's to design and build a CLOSED COOLING SYSTEM. Some 30 plus years later, Entergy is still trying to wiggle out of a commitment that originally had a 1979 date of delivery.

In order to be a valid and enforceable agreement, a document must contain certain essential legal provisions and must not leave either undecided or to be determined at some time in the future any aspect of such essential legal provisions. **If these essential elements are not present, then the document is not a binding one and is often referred to by courts as an "agreement to agree" and is nothing more than a letter of intent, both of which are not enforceable as contracts or license.** (Footnote THE LETTER OF INTENT IVAN HOFFMAN, B.A., J.D. 2006) A license is essentially a

contract between a regulator and a regulated business, in this case the NRC and IP2 LLC,

In Richie Co. LLP vs. Lyndon Insurance Group, Inc., a federal case out of the Eighth Circuit interpreting Minnesota law. The Court held that the April 16, 1999 "agreement" was not an agreement at all but a non-binding letter of intent and agreement to agree. The Court stated: A letter creating an agreement to negotiate in good faith in the future is not enforceable where the parties have contemplated that the agreement is not the complete and final agreement governing the transaction at issue.

The Court also stated: Furthermore, where the parties have agreed that an "agreement to negotiate" or letter of intent, in its entirety, is not a binding legal agreement, Minnesota courts have refused to enforce an individual provision of the letter as a freestanding "contract" promise. Therefore since the NRC plans to accept vague commitments with unspecified protocols to be determined at an uncertain date in the future, for certain components and systems in IP2's aging management plan, then entire plan and new superceding license will be unenforceable and void.

The Court stated further: That language that spoke of future actions and agreements contemplated but not yet completed by the parties showed that the letter "was not the complete and final agreement the parties contemplated would govern" but "merely created an agreement to negotiate in good faith." Such language clearly manifests an intention to do something essential at a later date...thus the document is not a binding contract but merely an unenforceable agreement to agree and a non-binding letter of intent. A nuclear reactor licensee must not be allowed to operate a facility without a complete and fully enforceable legal license and agreement in place.

If the NRC approves a new superceding license based on the Applicant's LRA that contains criteria and obligations of the Applicant that do not have sufficient certainty with regard to the aging management plan, then such License will be void for uncertainty. The new superceding license will be nothing more than an "agreement to agree", as to essential terms and conditions, that may adversely affect public health and safety left vague and uncertain, to be defined at an uncertain date and time.

In addition the NRC acceptance will bar Stakeholders from participating; review specific criteria that may adversely affect public health and safety, which is a violation of Stakeholders right to both due process and full redress under the law.

Therefore the Stakeholders Contend that the NRC cannot approve the LRA with any vague or uncertain criteria, with unenforceable future commitments which would cause the new superceding license to be unenforceable and void.

Contention 27-The LRA submitted fails to include Final License Renewal Interim Staff Guidance. For example, LR-ISG 2006-03, " Staff guidance for preparing Severe Accident Mitigation Alternatives."

The LRA submitted fails to include Final License Renewal Interim Staff Guidance (LR-ISG) For example, LR-ISG 2006-03, "Staff guidance for preparing Severe Accident Mitigation Alternatives (SAMA)." This LR-ISG recommends that applicants for license renewal use the Guidance Document Nuclear Energy Institute 05-01, Revision A, (ADAMS Accession No. ML060530203) when preparing SAMA analyses. The IP2 LLC failed to

include any ISG in its submittal in spite of the recommendation of the NRC, and in spite the regulator incorporating the LR-ISG in the next revision of Supplement 1 to Regulatory Guide 4.2, "Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses"

Contention 28-The Updated Final Safety Report fails to meet the requirements of 10 C.F.R.55(a) by deletion of required codes and standards, and obviates the ability for a petitioner to perform a technical review as required under 10 CFR 50.4.

The Updated Final Safety Analysis Report (UFSAR) as referenced in the LRA for Unit 2 fails to meet the minimum requirements of *10 CFR 55(a)*, and fails to include codes and standards required to be contained in the UFSAR. This fundamental and cornerstone document was apparently altered between the years 2000, and 2006 to remove essentially all codes and standards and therefore is prima facie in violation of federal rules. Without the Safety Analysis Report including necessary codes and standards the license to operate the facility has no basis to ensure the safe operation and protection of the health and safety of the public.

Contention 29-Inability to Access Proprietary Documents Impedes Adequate Review of Entergy Application for License Renewal of IP2 LLC and IP3 LLC (Specifically, in this case the CLB.

The applicant is required to have in its possession and control the precise current license basis for each unit. The current license basis (CLB) is defined in10CFR50.3. The Current License Basis (CLB) is required for Renewal and unavailable as required under 10CFR2.390 for license renewal[3]. It is noted here, that this Contention though almost identical to another contention, it is different. In the first proprietary document contention, we make a contention as to the adequacy of time to submit contentions, as a result of inability to gain access to proprietary documents. In this contention, we contend it is impossible for stakeholders to adequately review the application due to Entergy's proprietary claims keeping necessary document out of our hands, making it impossible to adequately review the application.

[3] Of note is that very recently numerous examples of non existent clb were requested and denied, the licensee or the regulatory agency have begun to address parts of this issue, for example, the General Design Criteria were made available after numerous requests but only recently. Ditto the SERs and FSARs. The CLB is plainly interpreted that the pertinent parts must be available at the beginning of the public review period, and not two weeks before the end of the 60 day review window. See exhibit xxx for detailed correspondence history regarding some of these documents. Letters, rejections, more letters, emails from "bo don't give a damn" and others.

Numerous attempts have been made by the NRC as well as the GAO to establish that the Current License Basis (CLB) is known, current, documented, and available. None have been successful. The most recent was an investigation by the GAO under where it was concluded that the CLB for each plant is not known. This is particularly material, given that the pertinent parts of the CLB are required under §2.309 to be available to Stakeholders regarding the license renewal of the plant.

The CLB includes the Design Basis Document Program. For IP3 this is referred to as the Design Basis Verification Program, for Indian Point 2, this is referred to as the Design Basis Document Program. The status of design basis program is outdated, not reliable as design basis documents. See for example the IP2 IP3 DVP document regarding Appendix R and Fire Protection. These documents are part of the licensing basis and must have current and relevant portions available to interested parties.

Citizens who believe they could be negatively/adversely affected/impacted by a License Renewal Application (LRA) have a right to file a Petition to Intervene and a Formal Request for Hearing. (*§ 2.309 Hearing requests*). There are specific 10 CFR Rules and Regulations which define and spell out

the duties and responsibilities of a citizen wishing to use their right to formally intervene in the process, and primary among these rules and regulations, is the filing of a contention. These contentions to be accepted must meet a minimal standard of proof in raising a contention of law or fact which is supported by a methodical presentation of documents or expert witness testimony in support of the contention. In short, unlike and allegation, contentions must have some supportive evidence that there exists a true difference of opinion of fact or law that falls within the scope of the LRA.

From the date of acceptance of a LRA for review as is witnessed by notice in the Federal Registry, interested Stakeholders have exactly 60 days to submit their contentions with proper evidence, and formally request a hearing and status as and intervener.

The NRC liberal granting of proprietary status to nuclear industry documents and portions therein (including massive redactions [on the claim of proprietary information] the LRA for IP2 LLC and IP3 LLC(and underlying supporting documents) make it impossible for stakeholders to adequately review the LRA documents and form/support their contentions in

the limited window afforded the Stakeholder community. The time necessary to file FOIA's, and to contest a licensees claim to proprietary entitlement in keeping documents from public view, or having portions of the LRA and underlying documents redacted takes longer than the time allotted for stakeholders to prepare and support their contentions in a fashion adequate to have them accepted for further comprehensive review.

Various formal requests for additional time to adequately prepare and submit Petitions to Intervene and Formal Requests for Hearing have routinely been denied by the NRC, despite numerous requests for and extension of time by citizen groups such as FUSE, and four United States members of Congress. Without adequate time to access currently unavailable and/or un-redacted versions of documents, including the LRA's, FSAR's and UFSAR's for Indian Point 2 and Indian Point 3 hidden under the guise of proprietary information, stakeholders and citizens who believe they could be adversely impacted by the re-licensing of Indian Point 2 and Indian Point 3 are defacto denied their rights to redress under the laws of the United States of America, and under the guidelines of the NRC 10CFR Code of Regulations meant to protect human health and safety.

The time clock for submission of a Formal Request for Hearing, and Petition to Intervene should not begin until stakeholders have access to a full and complete set of un-redacted versions of the LRA and its underlying documents, including but not limited to the FSAR's (all versions), USFAR's (all versions), the most current and up to date company and/or NRC version of the Current Licensing Basis (CLB) which is described in 10 CRF 54.3 as:

> *Current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.*

Basis for Contention

As Stakeholders and property owners living within 3, 10 or 50 miles of the Indian Point facility owned by two unique and separately owned Entergy

Limited Liability Corporations, it is imperative in measuring any suspected and/or adverse risks/effects associated with the proposed actions sought in the LRA for IP2 LLC and IP3 LLC to have a clear and understanding of what the License Renewal Application seeks, and be capable of measuring the reliability and adequacy of the aging management plans contained therein.

In measuring the potential risks and/or adverse effects associated with the proposed action (license renewal) the Stakeholders have done due diligence in working their way through the myriad complexities that are the LRA's for IP2 LLC and IP3 LLC. Citizen volunteers, FUSE staff, attorneys and our industry expert have dedicated thousands of man/woman hours to fully understanding the repercussions of a 20 year license renewal on the community surrounding Indian Point.

<u>Contention 30: Despite best efforts on the part of the Stakeholders, Entergy's claims of entitlement to Proprietary Information, and the NRC's granting of their request for same have created a situation where petitioners are unable and incapable of properly forming and supporting certain contentions we wish to raise.</u>

This contention specifically alleges, that Entergy's claim of Proprietary Privilege in keeping certain documents from public review, unfairly, and unlawfully interferes with our ability to form, support and raise certain contentions. We assume all parties understand how several contentions all sound alike, seeing as licensees, and the NRC have been cutting and pasting identical language into different LRA's now since the process of relicensing America's aging fleet of reactors began, thus making numerous LRA documents almost identical in nature and design.

One example of the problems created by Entergy's claim of the information being proprietary in nature can be found in a cursory review of the most recent UFSAR's for IP2 LLC and IP3 LLC. Entergy in their LRA refer to the safety analysis in these documents in justifying many aspects of the aging management program (or lack there of) that will be relied upon in the 20 year period of operation should their LRA be granted. The redacted and publicly available versions of the USFAR's for IP2 and IP3 have over 80 percent of Chapter 14 which is the Safety Analysis has been redacted. If petitioners cannot review Entergy's safety analysis, we cannot formulate opinions based upon the facts on the adequacy of their proposed aging

management plan as outlined in the LRA. With this ability denied us, we cannot form, support and raise contentions we might otherwise raise in the LRA process.

Further examples revolve around industry documents that Entergy relies upon in the formulation of their aging management plans (and defense of same) that are not available for review under the same proprietary claims. We know for instance that there are issues regarding Boraflex degradation/failure in the spent fuel pools which brings into question the reliability and workability of Entergy's aging management plan for the spent fuel pools at IP2 and IP3. An industry investigation into this issue and the EPRI report on the findings is not publicly available, and is classified as proprietary in nature, even though tax payer funds (provided by DOE) were used in the creation of said work product. A challenge to this proprietary claim could take months, even years to resolve. This claim is backed up by the fact that it took Sherwood Martinelli seven months to have just ONE DOE FOIA request fully acted upon, and the documents placed into his possession.

The reason for delay, is that the documents must first be reviewed for proprietary information, and if necessary partially redacted before being made available. Stakeholders should not be kept from filing crucial contentions in the Indian Point 2 LRA process because industry and the NRC want to keep stakeholders citizens in the dark about inconvenient truths regarding the nuclear industry, and aging embrittled reactors that are presenting serious risk to human health and the environment. This delays caused by another agency of the federal government (DOE) have denied citizens the right to have adequate time to investigate the content of these documents, and raise contentions based upon their contents.

Contention 31: Safety/Aging Management: Entergy's LRA for Indian Point 2 is insufficient in managing the equipment qualification required by federal rules mandated after Three Mile Island that are required to mitigate numerous design basis accidents to avoid a reactor core melt and to protect the health and safety of the public .

Indian point 2 LRA does not adequately address the license renewal requirements of 10CFR54 specifically 50.54.4, Scope, for those components required for renewal defined in 10 CFR §50.49(b)(1). Indian point claims

credit in their LRA under Table 3.6.1, and EQ analysis in section 4.4 that they are not entitled to with the following claims:

- EQ equipment is not subject to aging management review because replacement is based on qualified life. EQ analyses are evaluated as TLAAs in Section 4.4.

- The Non-EQ Insulated Cables and Connections Program will manage the effects of aging. This program includes inspection of non-EQ electrical and I&C penetration cables and connections.

- The Non-EQ Instrumentation Circuits Test Review Program will manage the effects of aging. This program includes review of calibration and surveillance testing results of instrumentation circuits"

The proposed programs are not sufficient to demonstrate compliance with either 10 CFR 50.49(e)(5) or with 10 CFR 54.

Essentially, Entergy under the approval of the NRC but with objection of the ACRS found alternative analysis that performed a rudimentary economic analysis to disregard federal rules regarding the both Entergy's current CLB with respect to equipment required to operate during a design basis accident. A rudimentary quality study procured by the NRC concluded that a 50 % chance of multiple equipment not functioning was acceptable based upon an economic analysis.

This breathtaking abuse of federal rules, and compliance with the federal procedures Act might be compared to removing all the fire extinguishers at a school district because the chances of a fire are low, and the cost of keeping them in operating condition is high- REGARDLESS of a law that requires the public school with 100s of students in attendance to have the extinguishers present and operable and inspected at prescribed all times. To illustrate, a high school administrator questioned the need for fire extinguishers because of costs and that there was a history of literally not one extinguisher used. The extinguishers required replacing, maintaining, and for some brands, it was known that that may not properly function or simple fail. It was known they simply would failed—even with a law that required the school to have operating, functional fire extinguishers. So far

we are talking about negligence. However, the next step taken in this analogy is that the school administration deliberately set aside the requirement in lieu of an alternative PRA study – to save money. The fire extinguishers were quietly thrown out as each one broke etc. In our example, the NRC concluded that the economic analysis to justify a 50% failure rate was acceptable. Why, because in spite of the federal rule, the accident scenario was unlikely to occur.

Applicable Federal rules pertaining to this contention

> (i) Under §54.19 of requirements for license renewal, Entergy must provide the information specified in 10CFR50.33(a) through (e), (h) and (i)...or by reference to other documents that are required for this section. Under §54.21 Contents of the application—technical information, each application must contain the following information:

An integrated plant assessment (IPA).

(1) For those systems, structures, and components within the scope of this part, as delineated in §54.4, identify and list those structures and components subject to an aging management review. Structures and components subject to an aging management review shall encompass those structures and components:

a. That perform an intended function, as described in § 54.4, without moving parts or without a change in configuration or

properties. These structures and components include, but are not limited to, the reactor vessel, the reactor coolant system pressure boundary, steam generators, the pressurizer, piping, pump casings, valve bodies, the core shroud, component supports, pressure retaining boundaries, heat exchangers, ventilation ducts, the containment, the containment liner, electrical and mechanical penetrations, equipment hatches, seismic Category I structures, electrical cables and connections, cable trays, and electrical cabinets, excluding, but not limited to, pumps (except casing), valves (except body), motors, diesel generators, air compressors, snubbers, the control rod drive, ventilation dampers, pressure transmitters, pressure indicators, water level indicators, switchgears, cooling fans, transistors, batteries, breakers, relays, switches, power inverters, circuit boards, battery chargers, and power supplies; and

b. That are not subject to replacement based on a qualified life or specified time period.

(2) Describe and justify the methods used in paragraph (a)(1) of this section.

(3) For each structure and component identified in paragraph (1)(i) of this section, demonstrate that the effects of aging will be

adequately managed so that the intended function(s) will be maintained consistent with the CLB for the period of extended operation.

(B) ***CLB changes during NRC review of the application.*** Each year following submittal of the license renewal application and at least 3 months before scheduled completion of the NRC review, an amendment to the renewal application must be submitted that identifies any change to the CLB of the facility that materially affects the contents of the license renewal application, including the FSAR supplement.

(C) ***An evaluation of time-limited aging analyses.***

(1) A list of time-limited aging analyses, as defined in § 54.3, must be provided. The applicant shall demonstrate that—

a. The analyses remain valid for the period of extended operation;

b. The analyses have been projected to the end of the period of extended operation; or

c. The effects of aging on the intended function(s) will be adequately managed for the period of extended operation.

(2) A list of plant-specific exemptions granted pursuant to 10 CFR 50.12 and in effect that are based on time-limited aging analyses as

defined in § 54.3. The applicant shall provide an evaluation that justifies the continuation of these exemptions for the period of extended operation.

(D) ***An FSAR supplement.*** The FSAR supplement for the facility must contain a summary description of the programs and activities for managing the effects of aging and the evaluation of time-limited aging analyses for the period of extended operation determined by paragraphs (a) and (c) of this section, respectively.

(ii) Under License Renewal Rule 10 CFR 54, Entergy must specify components that are within the scope and in particular those that are defined under the requirements of 10 CFR 50.49.

(A) *10 CFR § 54.4* Scope specifies that plant systems, structures, and components within the scope of the License Renewal Rule are:

(1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions: (a) Plant systems, structures, and components within the scope of this part are:

(2) Safety-related systems, structures, and components which are those relied upon to remain functional during and following

design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:

> a. The integrity of the reactor coolant pressure boundary;
>
> b. The capability to shut down the reactor and maintain it in a safe shutdown condition; or
>
> c. The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in § 50.34(a)(1), § 50.67(b)(2), or § 100.11 of this chapter, as applicable.

(3) All non-safety-related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1)(i), (ii), or (iii) of this section..

(4) All systems, structures, and components relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48), environmental qualification (10 CFR 50.49), pressurized thermal shock (10 CFR 50.61), anticipated transients without scram (10 CFR 50.62), and station blackout (10 CFR 50.63).

(B) The intended functions that these systems, structures, and components must be shown to fulfill in § 54.21 are those functions that are the bases for including them within the scope of license renewal as specified

in paragraphs (a)(1) - (3) of this section.[60 FR 22491, May 8, 1995, as amended at 61 FR 65175, Dec. 11, 1996; 64 FR 72002, Dec. 23, 1999].

2. Analysis of the of Indian Point 2 IRA Against the Rule

(i) The Indian Point application for Unit 2 for License renewal, as it applies to Equipment Qualification Program MUST consider the following requirements of 10CFR 50.49:

(A) Accomplishing the safety function by some designated alternative equipment if the principal equipment has not been demonstrated to be fully qualified.

(B) The validity of partial test data in support of the original qualification.

(C) Limited use of administrative controls over equipment that has not been demonstrated to be fully qualified.

(D) Completion of the safety function prior to exposure to the accident environment resulting from a design basis event and ensuring that the subsequent failure of the equipment does not degrade any safety function or mislead the operator.

(E) No significant degradation of any safety function or misleading information to the operator as a result of failure of equipment under the accident environment resulting from a design basis event.

(ii) Issues regarding 10 CFR 50.49 were identified under a Generic Safety Issue number 168.

Issues regarding 10 CFR 50.49.were subsequently investigated by numerous parties. Many components were found unqualified to function for the 40

years let alone 60 years. These components are presently installed at Indian Point 2 and 3. Certain components and failures were found as high as 50%.

(iii) The ACRS reviewed the results of GSI 168 and ACRS Comments on GSI 168, and then made a number of recommendations[4]

A discussion of the treatment of the instrumentation and control (I&C) cables during the license renewal term be included in the generic communication recommended by RES. The staff encouraged the industry to perform further developmental work on techniques for monitoring I&C cable condition. We agree with the staff's conclusions that: The current equipment qualification (EQ) process for low-voltage I&C cables is adequate for the duration of the current license term of 40 years. Knowledge of the conservatism in the operating environment, as compared to the qualification environment, coupled with observation of the condition of the cables can be used to extend the qualified life of the cables. A combination of condition monitoring techniques is needed since no single technique is effective to detect degradation of I&C cables. Test results and other pertinent information should be disseminated to the nuclear industry through a generic communication.

[4] ACRS letter dated June 17, 2002

(iv) Additional Comments by ACRS Members Dana A. Powers, F. Peter Ford, Victor H. Ransom, Stephen L. Rosen, and John D. Sieber

The staff has recommended a resolution of cable integrity issues for one class of design-basis accidents, loss-of-coolant accidents. For these accidents, temperature and radiation loads are of dominant concern. Other design-basis accidents, such as main steamline breaks, can impose other loads on cables such as large amplitude vibrations and bending. The staff has not investigated the effects of these other loads on the integrity of aged cables adequately. What the staff has done is adequate to resolve the six, open, sub-issues of GSI-168. The staff should consider additional examinations of cable integrity as part of its ongoing work on mechanical loads and vibrations associated with main steamline breaks and other design-basis accidents.

MR. AGGARWAL: Thank you.

As we reported to you previously, there were failures of certain I&C cables in NRC tests, namely in LOCA test numbers 4, 5, and 6. Failures of single conductor bonded Okonite cables. Sampled more cables in test number 4, and eight out of 12 cables failed in LOCA test number 6 for 60 years. We also found in our research that there is no single condition monitoring technique available which is effective to detect degradation. Probably combination of different techniques can be used, depending upon the type of insulation. We also found that visual inspection can be useful in assessing the degradation of cable with time. (Pg. 224-225

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>
> Turning to the 60-year aging assessment, which was LOCA test number 6, in our test, eight out of 12 cables failed the post-LOCA test. And we have concluded that some of these cables may not have sufficient margin beyond the 40 years of the qualified life. (Pg . 233-234)

(v) Brookhaven Testing, 4.5.4 Extending Qualified Life {reference}

The data obtained from test sequence 6 are of particular interest for the issues related to extending qualified life. In that test, cables from four different manufacturers were pre-aged to the equivalent of 60 years of qualified life and were then exposed to simulated LOCA conditions. As discussed in Section 3.6, a number of the specimens experienced degradation related failures during a submerged voltage withstand test in which they were unable to hold the test voltage. These results indicate that the degradation due to aging beyond the qualified life of the cables may be too severe for the insulation material to withstand and still be able to perform during an accident. For life extension purposes, the qualified life of

the cables should be reviewed and compared to actual plant service environments. A determination can then be made as to whether the additional exposure to aging stressors during the period of extended operation will be acceptable for the cable materials.

(vi) Under RIS 2003-09, The NRC accepted the ACRS in part, and set aside signfinciant technical concerns in other parts. This is a clear violation of CFR 2xxx. Five members dissented in accepting the study closing GSI.

The staff has concluded that, although a single reliable condition-monitoring technique does not currently exist, walkdowns to look for any visible signs of anomalies attributable to cable aging, coupled with monitoring of operating environments, have proven to be effective and useful.

A combination of condition-monitoring techniques may be needed since no single technique is currently demonstrated to be adequate to detect and locate degradation of I&C cables. Monitoring I&C cable condition could provide the basis for extending cable life.

The apparent violation (reference 2xx) of the NRC bypassing ACRS recommendations regarding compliance to 50.49, and the implications to 50.4.

(vii) Regulatory Issue Summary (RIS 2003-09)[5]

The staff has concluded that, although a single reliable condition-monitoring technique does not currently exist, walkdowns to look for any visible signs of anomalies attributable to cable aging, coupled with monitoring of operating environments, have proven to be effective and useful. A combination of condition-monitoring techniques may be needed since no single technique is currently demonstrated to be adequate to detect and locate degradation of I&C cables. Monitoring I&C cable condition could provide the basis for extending cable life.

(A) Expert Witness testimony

See Declaration by Expert Witness Ulrich Witte, regarding his work with Equipment qualification and Arrhenius aging as was implemented in the 1980s, then questioned regarding license renewal.

3. Conclusion

The NRC violated Title 5, Part I, Chapter 7 of the Federal Administrative Procedures Act—and that the problem has particular relevance to Indian Point 2 license renewal as well as IP2's present ability to cope with certain design basis accidents.

[5] Dated May 2, 2003

Particularly in 50.49.

The following are multiple component examples required for safe shutdown of the IP2 –which are presently unqualified and will apparently remain unqualified from Entergy statements in their LRA. FUSE argues (1) the violations made by Entergy in failing to comply with the 10CFR50.49 (2) the violations made by the regulatory agency, the NRC, in accepting the unqualified components as okay, even with a flawed approval based upon industry guidance that actually violate the law. (3) the regulator recognizing its errors, and then in a series of actions beginning about five years ago there is evidence of deliberate that by passing of the ACT in attempting to accept and cover up the blunder with an unlawful procedural process using PRA and cost benefit analysis and dismissing issues the ACRS found fault with. Yet the NRC closed out the issue articulating supposed endorsement from the ACRS not withstanding the ACRS concerns[6]. (4) the GAO has noticed the approach taken by the NRC and Entergy on other issues, yet Entergy failed to act.

Recent documents show the NRC intended to set aside the needs to comply with federal rule 10CFR 50.49. They make it obvious that the present

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proceedings for relicensing the Indian Point plant yield no alternative other than the public accepting the violations by the licensee and the regulator and the consequential unsafe material conditions of the plant to withstand the design basis requirements specified in the current UFSAR, as well as, the proposed amended UFSAR for license renewal.

New testing done by laboratories under contract from the NRC show cable failure rates of the order of 50%. Yet they closed the issue anyway under a high school quality economic analysis. The approach was not only unlawful but also, technical nonsense. Ensuring the functionality of the numerous cables and components required for safe shutdown was one of the major requirements that licensees were required to perform because of the events of Three Mile Island (TMI). Some consider these actions *the* most major. To bypass them now is beyond reason, and violates the NRC mandate to protect public health and safety.

This contention should be admitted as is a matter of law, and as a matter of fact.

Contention32-Entergy's License Renewal Application Does Not Include an Adequate Plan to Monitor and Manage Aging of Plant Piping Due to Flow-Accelerated Corrosion During the Period of Extended Operation.

IP2 LLC License Renewal Application does not include an adequate plan to monitor and manage aging of plant piping due to Flow-Accelerated Corrosion (FAC), as required pursuant to 10 C.F.R. § 54.21(a)(3). The plant piping is subject to aging management review, pursuant to 10 C.F.R. § 54.21(a), and FAC is an aging phenomenon that must be adequately managed. *See* NUREG-1801, *Generic Aging Lessons Learned (GALL) Report,* Revision 1, U.S. Nuclear Regulatory Commission. FUSE submits the Declaration of Mr. Ulrich Witte.

Scope and approach of the Flow –Accelerated Corrosion is noted as unchanged as compared to the present licensing basis. Therefore, by implication, scope of the program includes:

1. Extraction Steam System: (see e.g. IP3-RPT-EX-0911 for Unit 3)
2. Condensate System: (IP3-RPT-COND-0912)
3. Moisture Separator Drain System: (IP3-RPT-HD-00913)
4. Heater Drain System: (IP3- RPT-HD-00979)

5. Feedwater System: (IP3-RPT-0984)

6. Reheater Drain System: (IP3-RPT-HD-01144

7. Moisture Separater Drain System: (IP3-RPT-MSD-01158)

8. Historical Inspection Data: (IP3-RPT-MULT-01471)

9. Small Bore and Augmented Piping Program: (IP3-00064.000-1)

A review of an ACRS Transcript discussing the predictability of the industry accepted technical approach cited by the Applicant is precisely on point and worthy of quoting the dialogue directly by the ACRS and the admissions by Entergy regarding the weakness in reliability of the methodology, and specifically addresses the Extraction Steam System. Mr. Rob Alersick of Entergy made the following comments during ACRS 2003 meeting in Rockville Chaired by Dr. GrahamWallis:

> Mr. ALERISK, [Entergy]: I've had the opportunity to be involved with flow accelerated corrosion since 1989 and in particular have modeled or otherwise addressed approximately 20 EPU efforts in the last two years. Dr. Ford made a very good point earlier when he said that the graph that we looked at did not display a very good correlation between the measured results and the predicted results out of CHECWORKS. Programmatically—well, let me back up a second. That is certainly true in the example that we looked at. That is not always the case. CHECWORKS models are on a per line or per run basis. The run –
>
> CHAIRMAN WALLIS: Could we go back to that graph that we saw? The graph was a plot of thickness versus predicted thickness. Because if you looked at amount removed versus

predicted amount removed, it seems to me the comparison will be even worse.

MR. ALEKSICK: That's correct. In fact –

CHAIRMAN WALLIS: That's what you're really trying to predict is how much is removed.

MR. ALEKSICK: Yes, that is true. And my point is that in some subsets of the model, the one that we looked at here which was high pressure extraction steam, the correlation between measured and predicted is not so good. And in some subsets of the model, the correlation is much better.

CHAIRMAN WALLIS: It looks to me that in some cases it's predicting no removal whereas in fact there's a lot of removal. *So the error is percentage wise enormous?* {emphasis is added}

MR. ALEKSICK: *Yes, exactly* [emphasis added]

Advisory Committee on Reactor Safeguards Thermal Hydraulic Phenomena Subcommittee, January 26, 2003.

Accurate specification of inspection frequency is admitted by Entergy as potentially containing enormous errors. Accurate inspection frequency is the key to a valid FAC management program. Entergy proposes, through reference to NUREG 1801, to use a computer model called CHECWORKS to determine the scope and the frequency of inspections of components that are susceptible to FAC.

Accurate specification of scope and inspection frequency is the key to a valid FAC management program. Entergy proposes, through reference to NUREG 1801, to use a computer model called CHECWORKS to

determine the scope and the frequency of inspections of components that are susceptible to FAC. Entergy also provides scope of the FAC program by inference in the LRA as being limited.

License Renewal Application Table 3.4.1 ¶ 3.4.1-29, and Appendix B § B.1.13 (stating that management of FAC is per NUREG 1801, which in turn recommends CHECWORKS) does not meet the requirements of CFR54.22 Because Indian point 2 plant recently increased its operating power level by approximately 5%, and experienced and unprecedented steam generator tube rupture event. The profiles required for checkworks and the grid check points are unsubstantiated based upon these two significant changes. Changing plant parameters including coolant flow rate, the CHECWORKS model cannot be used to determine inspection frequency at Indian Point2.

CHECWORKS is an empirical model that must be continuously updated with plant-specific data such as inspection results. Once "benchmarked" to a specific plant, it makes accurate predictions so long as plant parameters, such as velocity and coolant chemistry, do not change drastically. It would take as much as 10 or more years of inspection data collection and entry to the model to benchmark CHECWORKS for use at Indian Point 2.

The applicant has a track record of broken pipes due to corrosion, the steam generator failure a design basis accident with a unacceptable PRA Prediction. Thus PRA analysis for pipe failures are by them selves unacceptable, and the applicant technical basis for a program that prevents pipe rupture or component failure as described in the LRA is inadequate to meet the requirements of 10 CFR 54.21 and other parts of 10 CFR 50.

Based on the proposed program to monitor and manage FAC, Entergy cannot assure the public that the minimum wall thickness of carbon steel piping and valve components will not be reduced by FAC to below ASME code limits during the period of extended operation.

Finally wear limits acceptance criteria are inconsistent with industry guidance and precedence regarding LRA acceptance, and SER approval for other facilities.

Contention 33-Leak-Before-Break analysis is unreliable for welds associated with high energy line piping containing certain alloys at Indian Point 2.

The Leak-Before-Break (LBB) concept is associated with the nuclear power plant design principles as regards pipe failures and their safety implications. It has been introduced as a means of partially relaxing the requirements concerning postulated double-ended guillotine breaks. During

the past few years, LBB has received increasing applications as a criterion for assessing or upgrading the safety of existing plants whose provision against DEGBs presents deficiencies compared to current requirements.

Technically, the LBB concept, defined hereafter, means that the failure mode of a cracked piping is a leaking through-wall crack which may by timely and safely detected by the available monitoring systems and which does not challenge the pipe's capability to withstand any design loading. The concept relies on experiences that doubled ended breaks and other catastrophic failures of primary circuit piping are extremely unlikely. Various design, operation, inspection and monitoring aspects have been considered as prerequisites.

One prerequisite is that locations of piping systems that are susceptible to stress corrosion cracking do not qualify for LBB relief. Previously, butt welds associated with 82/182 alloys for example were considered to be free of SCC problems since PWRs operate in low oxygen environments. However, more recent events with these welds has makes use of LBB questionable for these weld alloys. These include VC Summers, and other PWR plants.

Industry guidance as well as emerging regulatory funded studies such as NUREG Publication "Conference on Vessel Penetration Inspection, Crack Growth and Repair" have specifically warned against traditional reliance of LBB as credited in Section 4.7.2 of IP2 Section 4 LRA, in spite of the nickel-based alloy weld. [page 4.7-2 of the LRA].

IP2 LRA apparently will not respond to this potential safety threat, and relies wholly on previous studies such as WCAP-10977m and WCAP-10931. These studies are out of date. See for example, NUREG/CR-6936. "Probabilities of Failure and Uncertainty Estimate Information for Passive Components – A Literature Review."

In addition, the NRC announced on March 13, 2007, the licensees of 40 pressurized water reactors will raise levels of vigilance concerning reactor coolant system (RCS) welds. The US Nuclear Regulatory Commission (NRC) has issued Confirmatory Action Letters (CALs) confirming the licensees' commitment to put in place "more timely inspection and [weld] flaw prevention measures, more aggressive monitoring of RCS leakage, and more conservative leak rate thresholds for a plant to shut down to

investigate a possible [coolant water] leak." The measures should be put in place and welds inspected during an outage before the end of 2007. If no outage is scheduled this year, they must justify an extended schedule to the NRC. The concerns are centered on welds containing Alloy 82 and Alloy 182, used to weld together alloys like Inconel 600 and 601 as well as dissimilar metals such as carbon steel and stainless steel. The steps were taken after the discovery of certain flaws in the welds of the pressurizer at the Wolf Creek plant, which "were repaired and did not affect the safe operation of the plant." The CALs are an interim measure while the American Society of Mechanical Engineers updates its Boiler and Pressure Vessel Code, which will subsequently be reviewed and incorporated into NRC requirements. See Declaration of Ulrich Witte.

Contention 34-IP2 LLC's ineffective Quality Assurance Program violates fundamental independence requirements of Appendix B, and its ineffectiveness furthermore triggered significant cross cutting events during the past eight months that also indicate a broken Corrective Action Program.

The result of the cross cutting/inadequate programs included failures to incorporate issues such as design control breakdown that resulted in

contaminated coolant spillage of 385-500 gallons, incorrect sections of piping cut during plant modifications, and lack of trust in employee knowledge in identifying safety culture related issues.

Specific failures included for example during the second quarter of 2007, inadequate procedures in violation of appendix B, criterion V, "instructions, procedures and drawings," during an attempt to clear interference of sumps while implementing modifications to vapor containment and recirculation pumps on March 7, 2007. The root cause is cited as "human performance error", despite multiple barriers of supervision, oversight, leading to flawed instructions conflicting from the work package. The root cause appears to not support the quality failure that the work package itself failed to ensure that the piping interference was correctly planned and selected for cutting. This failure could have caused severe injuries to the work crew involved. This is an example of a cross cutting issue, were the root cause is improperly attributed, and the quality assurance failure appears to not be addressed. See inspection report 2007002.

A second example of IP2 LLC's ineffective quality assurance program should have easily caught a trend of deficient procedures associated with

temporary modifications. In this example, temporary modifications were being implemented that effected normal control lighting power. The procedure lacked general precautions, limitations, and prerequisites to prevent low lighting condition such that operators did not have adequate lighting to monitor control panels. Yet again, the root cause was attributed to human performance, as opposed to a programmatic symptomatic cross cutting failure.

The lack of fundamental controls on the temporary modification process, lack of supervisory oversight to ensure adequate procedures with basic and generic contents to protect the health and safety of the workers, as well as the lack of safe configuration of the plant during the modification, should have been caught at multiple levels, including an independent and empowered Quality Assurance Program.

Contention 35-IP2 LLC's ineffective Quality Assurance Program violates fundamental independence requirements of Appendix B, and its ineffectiveness furthermore triggered significant cross cutting events during the past eight months that also indicate a broken Corrective Action Program.

A third example that IP2 LLC has failed to establish adequate corrective actions associated with monitoring of the service intake bay level. This failure could have prevented entry into an emergency action level, and therefore endangered the health and safety of the public during a radiological emergency. This again raises a cross cutting issue of an inadequate corrective action program, as well a ineffective quality assurance oversight program, given that Entergy knew of the condition, and yet, failed to implement corrective actions until the issue was re-identified by the NRC. The above examples alone indicate that license renewal based upon accurate current configuration management and control of the facility is insufficient.

Contention 36-IP2 LLC's ineffective Quality Assurance Program violates fundamental independence requirements of Appendix B, and its ineffectiveness furthermore triggered significant cross cutting events during the past eight months that also indicate a broken Corrective Action Program.

A fourth example has profound significance as to a lack of confidence that IP2 LLC for the new superceding license by addressing the actual in situ material conditions of the plant, it's safe operation, and sufficient controls to ensure management of the facility that ages beyond its design life. In this

example, a safety culture assessment results set was apparently not entered into the corrective action program. This was identified by the NRC, when Entergy failed to initiate condition reports identified during a 2006 safety culture assessment.

Consequently the adverse conditions were not evaluated and appropriate corrective action was not identified in a timely minor. This failure by it self is sufficient to indicate that Entergy has a substantial safety culture work environment failure. Confidence by those workers that risk raising safety concerns, in spite of potential retaliation, will be immediately lost. Actual condition of the plant in terms of a baseline for managing aging is unknown, and essentially invalidates those specific programs that credit the current material condition of the plant in addressing Sections 3 and 4 of the License Renewal Application. See Declaration by Ulrich Witte, seeing as we paid and arm and a leg to have it written.

Contention 37-(Environmental) The Applicant's LRA does not specify, as required in 10CFR50.65 and 10CFR50.82(a)(1), an Aging Management plan to monitor and maintain all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe

condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions.

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The Applicant's LRA does not specify, as required in 10CFR50.65 and 10CFR50.82(a)(1), an Aging Management plan to monitor and maintain all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions.

The condition of the Spent Fuel pool at Indian Point 2 is known to be compromised. Since at least 2005, when an independent contractor working on installing a crane to remove spent fuel into dry cask storage stumbled upon a underground leak at the corner of the pool, the NRC, the Applicant and the public knows of the leaks. However, the extent, location, length and quantity of the leak remains unknown. What is known is that the Applicant failed to maintain the spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components

fulfill its intended function, as required by 10CFR50.65 Requirements for monitoring the effectiveness of maintenance at nuclear power plants.

The requirements of this section are applicable during all conditions of plant operation, including normal shutdown operations.

> *54.4 (a)(1) Each holder of a license to operate a nuclear power plant under Secs. 50.21(b) or 50.22 shall monitor the performance or condition of structures, systems, or components, against licensee-established goals, in a manner sufficient to provide reasonable assurance that such structures, systems, and components, as defined in paragraph (b), are capable of fulfilling their intended functions. Such goals shall be established commensurate with safety and, where practical, take into account industry-wide operating experience. When the performance or condition of a structure, system, or component does not meet established goals, appropriate corrective action shall be taken. For a nuclear power plant for which the licensee has submitted the certifications specified in Sec. 50.82(a)(1), this section only shall apply to the extent that the licensee shall monitor the performance or condition of all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions*

In the LRA for Indian Point 2 the Applicant has not proposed an Aging Management Plan that adequately addresses the compromised condition of the Spend Fuel Pool #2, or an adequate Aging Managment Plan to address

the intended function of the pool to contain radioactive contamination from leaking into the environment.

The 30 year old concrete and rebar that the pool is constructed from, and the steel liner, are currently in a compromised condition, and will be unable to maintain it's intended function for a period of 20 more years. Especially since they want to add additional and undersigned for duties for the pool as a fuel transfer point to place spent fuel rods in faulty Dry Cask Storage Units.

In the past year, Unplanned, unmonitored leaks of liquid radioactive effluents, including tritium, strontium 90 and cesium 137, are leaking from Indian Point into the groundwater and Hudson River ("Radiation Leaks"). In most cases, the duration, extent, flow paths, and/or source of the Radiation Leaks, remain unknown. To date, Radiation Leaks have been discovered throughout the Indian Point 1, 2, and 3 complex. The Radiation Leaks manifestly can neither be repaired nor remediated until sources have been identified and/or located.

As of the date of this submission, upon information and belief, the Radiation Leaks result from separate, and a multitude of onsite systems, structures and

components in Spent Fuel Pool 2, including, the following: (A) Cracks in spent fuel pools; ((B) Failed or degraded fuel transfer tube sleeves; (C) Cracks and fissures. Face it, Indian Point is truely falling apart at the seams, yet they have applied to the NRC for a new superceding license in the name of a Nuclear Renaissance, in the name of corporate profits. Question is, is such a license renewal in the best interest of Human Health and Safety?

Since September 20, 2005 the integrity for the Spent Fuel Pool has been investigated by the Applicant, however to date the Applicant has not been able to identify and locate the leaks. The following is a chronology of the spent fuel problems at Indian Point:

1. September 20, 2005: NRC and Entergy notify the public that radioactive water is leaking from IP2's spent fuel pool. The leak was discovered by contractors excavating earth from the base of the pool in preparation for the installation of a new crane, for use in transferring spent fuel from the pool to dry cask storage. Entergy first discovered the leak twenty days earlier, but did not believe it was serious enough to warrant public notification. NRC orders a special inspection to determine the source of the leak.

2. October 5, 2005: Entergy notifies the NRC that a sample from a monitoring well located in the IP2 transformer yard shows tritium contamination that is ten times the EPA drinking water limit for the radionuclide, and is consistent with tritiated water from a spent fuel pool. The NRC broadens its special inspection to include this new information. The NRC also states in its report that the monitoring well had not been checked since its installation in 2000, following the transfer of IP's ownership from ConEd to Entergy.

3. October 18, 2005 : The NRC and Entergy confirm that the radioactive leak discovered in August is greater than initially believed. The radioactive isotope, tritium, has been discovered in five sampling wells around Indian Point 2, while the leak at the spent fuel pool has increased to about two liters per day. The company plans to test more wells, inspect the liner of the leaking fuel pool, and install additional monitoring wells.

4. November 26, 2005 : The tritium leak at IP2 remains unsolved, nearly three months after its discovery. Entergy's use of underwater cameras and divers to visually inspect and test for leaks at three locations on the steel liner's surface yield no results. Entergy must now employ different cameras to inspect the liner near the bottom of the pool, where the radiation is too high for a human diver to enter.

5. December 1, 2005: Entergy reports to the NRC that an initial sample from a new monitoring well five feet from the wall of the IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. The NRC still does not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant.

6. February 24, 2007 Cracked fuel rod found at Indian Point 2. Workers at Indian Point 2 discovered a cracked nuclear fuel rod in the reactor's spent-fuel pool yesterday morning, causing them to halt a routine inspection until they could determine the extent of the damage and devise a plan to safely move and store the broken pieces.

7. On September 7, an alleged pin hole sized leak in conduit, a pipe 20-24 inches, a fuel transfer tube and a component of the Spent Fuel Pool2 was found to be leaking.

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Entergy's license renewal application (LRA) for IP2 LLC fails to lay out, in detail, a workable aging management plans to deal with known leaks, in Spent Fuel Pool#2. The LRA, and the UFSAR's for Indian Point 2 inadequately address the currently existing, known and unknown,

environmental affects of ongoing leaks from the Spent Fuel Pools, and fails to lay out a workable aging management plan for said leaks.

Due to the location of the leaks on the banks of the tidal Hudson, by allowing the radioactive contamination to remain in the ground during the 20 year new superceding license period, the radioactive effluent leaking formn Spent Fuel Pool #2 will continue to be leached into the Hudson River, potentially causing great harm to human life, as 6 communities within the tidal area of the Hudson currently use the river for drinking water, New York City's emergency water station is location in Croton, just a few miles down River, and the County of Rockland has just received a proposal from United Water to use the Hudson River for drinking water.

Neither Entergy nor the NRC have identified an adequate aging management program for the various known and unknown leaks, thereby endangering public health and safety, by permitting unregulated radioactive waste to continue to be released into the environment during the 20 year new superceding license period. This is not only unacceptable |Aging Management Program issue, but also is indicative of irresponsible and negligent management by the Applicant and improper oversight by the

regulator. This is why the public believes that the NRC stands for No Regulatory Control. Maybe if the NRC took their heads out of NEI's ass long enough to look at these serious issues, the public would begin to hold them in higher regard.

Therefore Stakeholders assert the NRC cannot approve the Applicant's LRA until the integrity of Spent Fuel Pool #2 is restored, and the leaks from Spent Fuel Pool #2 are fully remediated.

Contention 38-(Environmental) The LRA, and the UFSAR's for IP2 inadequately address the currently existing, known and unknown, environmental affects and aging degradation issues of ongoing leaks, and fails to lay out workable aging management plans for said leaks and systems imperative for Safe Shut down and cooling of the reactor.

Entergy's license renewal application (LRA) for IP2 LLC fails to lay out, in detail, a workable aging management plan to deal with known leaks, in the underground pipes, steam pipes and other systems critical to Safe Shut Down of the reactor, and cooling of the spent fuel pool. The LRA, and the UFSAR's for IP2 inadequately address the currently existing, known and

unknown, environmental affects of ongoing leaks, and fails to lay out a workable aging management plan for said leaks. Examples of inadequately addressed aging management issues which are poorly stated vague and ambiguous include but are not limited to:

1. The reactor's coolant pump seal provides a critical leakage barrier between the pressure boundary and numerous rotating parts that seals the pressurized reactor used in primary coolant systems. IP's LRA fails to provide adequate proof of a proper safety analysis of this critical seal, nor does it provide a detailed aging management plan, despite industry knowledge of leakage associated with this critical component. Unexpected and/or abnormal shaft movement or misalignment can/will introduce motions including but not limited to shaft tilt, radial offset and orbit, and depending on the magnitude and scope of this displacement, and thus the seal arrangement, creates potentially dangerous site specific operational issues of concern, and site specific wear (aging) effects that must be accounted for with a detailed site specific aging management plan.

2. It appears from a read of IP2's LRA that they contend the feedwater heater is outside the scope of License Renewal. We disagree. The feedwater heater is a crucial component in maintaining thermal performance, but more importantly, aging issues unchecked contribute

greatly to INCREASED pipe fatigue and failure, which in turn increases leakage issues for key component pipes in the reactor system. Simply stated, loss of feedwater will impose SEVERE STRESS on the entire plant in terms of increased heat flux in the fuel, and greatly increased (and associated fatigue) on feedwater nozzles, headers, and piping. 41. U.S. Nuclear Regulatory Commission, "Rates of Initiating Events at U.S. Nuclear Power Plants 1987-1995", NUREG/CR-5750, February 1999.

3. Various piping industry sources place the life expectancy of stainless steel pipes at 20 years. IP2 is now in its 33rd year of licensing. Using simple averaging scenarios, IP2 will have to replace their entire active inventory of stainless steel pipes throughout the entire plant at least once during the 20 year period of relicense. There exists no detailed aging and maintenance plan in the LRA that spells out a viable and workable pipe replacement strategy for key component pipes needed for the cooling and safe shut down of the reactor.

Unplanned, unmonitored leaks of liquid radioactive effluents, including tritium, strontium 90 and cesium 137, are leaking from Indian Point into the groundwater and Hudson River ("Radiation Leaks"). In most cases, the duration, extent, flow paths, and/or source of the Radiation Leaks, remain

unknown. To date, Radiation Leaks have been discovered throughout the Indian Point 1, 2, and 3 complex. The Radiation Leaks manifestly can neither be repaired nor remediated until sources have been identified and/or located.

As of the date of this submission, upon information and belief, the Radiation Leaks result from separate, and a multitude of onsite systems, structures and components, including, the following: (A) Failed or degraded pipes (including pipes that transport liquids and pipes which transport steam); (B) Cracks in spent fuel pools; (C) Failed or degraded valves; (D) Reactor vessel failed welds in the bottom or vessel (which inspectors have been unable to adequately view and reach); (E) Pinhole leaks around weld joints; (F) Failed or degraded gauges; (G) Failed or degraded fuel transfer tube sleeves; (H) Failed or degraded steam generator tubes; (I) Inadequate or improperly operating drain systems; (J) Cracks and fissures.

In September of 2007, Entergy admitted to finding a leak in the conduit that is a part of the fuel transfer canal between the reactor and the spent fuel pool. The article in the Journal News stated in part:

By BRIAN J. HOWARD
THE JOURNAL NEWS

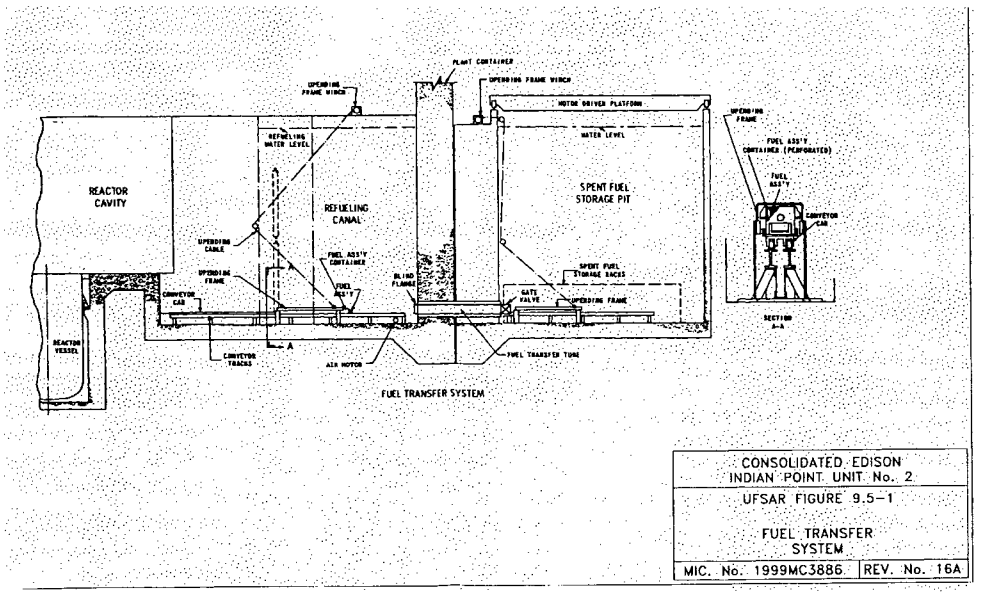
(Original publication: September 7, 2007)

BUCHANAN - Workers have discovered a pinhole-sized leak in a conduit used to transfer spent fuel from the reactor to the containment pool at Indian Point 2.

The leak was found Wednesday during testing for groundwater contamination from leaks of radioactive tritium and strontium 90 that were first discovered in 2005.

"It appears that there is a potential pinhole leak in the fuel transfer canal, which we believe could be a contributing source to the groundwater contamination that we've been talking about," said Jim Steets, a spokesman for Entergy Nuclear Northeast, the plant's owner.

There is no nice way to state categorically, that Jim Steets was/is lying through his teeth. There is a world of difference between conduit and pipe, and Jim Steets knows this. The alleged pin hole sized leak in conduit is actually a leak of undetermined size in a 20-24 inch pipe and the size of the leak is dependent upon contaminant studies yet to be conducted. Further, the leak in the conduit is more than likely, based on information available in the article a leak in the FUEL TRANSFER TUBE.



It is worthy of note that irradiated water is in fissures in the bedrock, that will eventually leach into the tidal Hudson River. Many of the cracks and fissures in the bedrock were created when the bedrock was blasted when the plant was first built, and therefore the irradiated water can take a very convoluted route into the environment, the groundwater and the Hudson River.

These multiple leaks provide direct evidence of underground pipe failure and/or degradation due to the aging of various systems that are not being adequately addressed by the applicant, and proof that the applicant's management of aging issues is wholly inadequate.

In fact certain Radiation Leaks, including tritium leaks allegedly from underground pipes on the "non-radioactive" side of plant were discovered purely by random accident on April 7, 2007, rather than via a coordinated, intelligent aging management and inspection plan. Other leaks were discovered, only because special excavation work being done by a contractor led to investigations after tritiated water was found seeping from surface cracks in spent fuel pool number 2, not through regular inspection and maintenance . In fact the length of time and extent of the leaks have existed remains unknown.

The multiple leaks are symptomatic of an aging system,, that is not properly and comprehensively inspected and maintained during the initial license period, there is no reason to believe that during the 20 years of the new superceding license the Applicant will do a better job of properly inspecting, maintaining and managing the aging facility. Nor does the LRA identify an aging management plan to locate, stop and remediate the current and future leaks. There are only vague reference to best industry standards, and sparsely defined sketches of potential aging management plans to deal with leakage issues caused from corrosions, fatigue, thermal shock, FAC (flow-

accelerated corrosion), and other leakage causes of concern during the 20 year period of license renewal.

At the Kashiwazaki plant in Japan, in July 2007, radiation leaked into the environment through a small hole, then flowed along electrical cabling, then into an air conditioning duct, then into a drainage ditch, and then finally out into the sea.) The existence of the Radiation Leaks provides direct evidence of underground pipe failure and/or degradation that has not been adequately addressed by the licensee. Ordinary maintenance failed to reveal the specific locations of numerous Radiation Leaks, therefore the limited aging management programs indicated in the LRA will also fail to identify radiation leaks before they cause damage to the environment, or before the leaks become breaks. As example, there is no aging management plan to address known potential pipe bursts in piping adjacent to plugged tubes in IP2's LRA. Further the LRA does not specify comprehensive visual inspections, vacuum testing and ultrasonic testing for all pipes, including buried pipes to determine corrosion, failure, environmental fatigue and other aging affects.

Moreover, at an April 26, 2007 public NRC meeting in Cortlandt, N.Y. ("April NRC meeting"), NRC and Applicant representatives conceded that they did not even know the metallurgic composition of much of the underground piping. Without a complete and comprehensive knowledge of the composition and layout of the underground piping system the Applicant will be unable to implement an adequate aging management plan.

Inaccessibility limits the inspection and testing of substantial segments of these aged and leaking pipes and components which play crucial roles in the cooling and safe shut down of the IP2 reactor, especially those having a buried or embedded environment. Thus, the Applicant cannot assure the NRC and the public that they will be able to manage effects of aging, soil elements, the intake of brackish water from the Hudson River and/or storm surges during the 20 year new superceding license period, which have already caused dangerous corrosion of Indian Point's entire piping, valve and gauge system resulting in the current leaks. It is further noted, that IP2 has not addressed the unique corrosion issues associated with the use of brackish water in the coolant process.

In the past few years there has been a significant increase in the amount of leaks found, at IP2, which indicates that as the plant ages there will be increased frequency of pipe leakage during the 20 year period of license renewal.

Since August 2005 the applicant has not been able to identify the source of the leaks, the duration of the leaks. On December 1, 2005, the applicant reported to the NRC that an initial sample from a new monitoring well five feet from the wall of the IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. In addition, the NRC announces that preliminary tests of tritiated water found in the IP1 Pool Collection System contain too much tritium to be from the IP1 Pool, suggesting that tritium-laced water is being collected in the IP1 Drain from another, unknown source. The Applicant still does not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant.

August 24, 2006 Faulty valves trigger shutdown of Indian Point 2 drainage problem. Workers shut down Indian Point 2 yesterday morning after

problems developed with discharge valves in a 10,000-gallon tank of nonradioactive water.

November 29, 2006: An unplanned shutdown at Indian Point 2, because a 1" steel alloy pipe was found leaking non-radiated water in the containment building.

April 24, 2007: A new leak of the radioactive isotope tritium has accidentally discovered at Indian Point, coming from an underground steam pipe near the Indian Point 3 turbine building, company officials and federal regulators confirmed yesterday.

September 7, 2007 a pinhole leak As recently as September 7, 2007a pinhole leak in the fuel transfer canal, was found which may be a contributing source to the ongoing groundwater contamination of Strontium and Tritium.

All of these leaks point to the imperative necessity for a complete inspection and comprehensive corrosion analysis of all underground and critical in scope piping systems and associated equipment that contributes to significant aging, fatigue, corrosion and vibrational degradation.

Compromised pipes can cause or fail to mitigate a serious accident, including a core damage event. Therefore, to properly maintain the aging facility any and all compromised pipes must be replaced including the ones under the reactor where information from discussions with Indian Point workers leads us to believe seals may be leaking.

The insufficiency of a reliable aging management program in the LRA of IP2 LLC increases the exposure risks of plant workers during the 20 year period of license renewal, and greatly increases the potential for a significant nuclear incident at the Indian Point facility during the period of license renewal, as increasing leak rates negatively impinge upon the core cooling component structures, and increase the risk of severe pipe ruptures that would lead to a release of unmonitored and uncontrolled radioactive contaminants into the environment, including the Hudson River, thus presenting a significant and increased risk to public health and safety.

The NRC itself has expressed concerns on this very issue as relates to ALL license renewal requests, and requested as a part of the license renewal application process that their licensees perform an assessment to ascertain and/or determine the potential severity of the effects of reactor water coolant

environment on fatigue. Further, where appropriate, the NRC further suggested/requested that license renewal applicants provide a proper aging management plan to deal with said fatigue issue. This concern was/is included in discussions found in NUREG/CR-6674.

Entergy in their LRA for IP2 LLC make a brief reference to reliance on a nuclear regulator approach to this significant issue, yet fail to identify with specificity an aging management plan which deals with the unique site specific environmental effects at the Indian Point facilities. The adequacy, or lack there of, as relates to this specific aging management issue is a matter of fact, that can only be resolved after interested parties, including community Stakeholders have an opportunity to submit evidence, cross examine expert witnesses, and conduct a full review of Entergy's supporting and/or discovered documents and a full in depth review has been conducted on the part of the hearing board.

Entergy's Indian Point facility (IP1, IP2 and IP3) have numerous serious leak issues. It is further known that leaks in the cooling pipes (critical components in the reactor water coolant process) present a serious plant specific safety issue/problem if an adequate aging management plan is not in

place, which it currently is not. Maintenance logs and other documents that will be found in pre-hearing document discovery will prove IP2 and IP3's aging management plan for this issue is woefully inadequate. Further, there are numerous NRC inspection documents identifying leak issues at the plant which will support this contention.

The NRC and the nuclear industry have admitted that environmental fatigue will increase the rate, volume and number of these leaks during the period of 20 years of additional operation of these aged facilities.

The industry's newly developed and unproven approach to this known aging issue is inadequate, and fails to adequately address the unique environmental issues specific to IP2, as said plant rely upon a unique brackish water supply for their reactor core cooling system.

Generic industry approach is inadequate to address the unique site specific leaks in the pipes, as evidenced by various already identified leaks. Leaks are a precursor to PIPE BURSTING in nuclear reactors primary coolant systems.

IP2's poorly defined and inadequate aging management issues as relates to this specific issue greatly increases the chances of a significant incident. such as large pipe burst, that could lead to an off site release of radioactive contaminants, thus creating a significant risk to human health and the environment, if as is contended here, said aging management plan is inadequate to properly address this aging management issue.

The NRC and Entergy do not have an aging management plan for the underground leaks. The applicant initiated actions to pump out the Unit-1 Containment Spray Sump through a filter/demineralizer system, designed to remove Sr-90, and investigate the source and means of the Sr-90 groundwater contamination. This fact raises the question, is Entergy in violation of the terms of their SafeStor for IP1. When the applicant started to remove the underground leaks by pumping the radioactive contamination out of the ground, it caused more radioactive material to be released. Therefore the NRC ordered that the Applicant to stop removing the radioactive effluent from ground and to only monitor it.

Due to the location of the leaks on the banks of the tidal Hudson, by allowing the radioactive contamination to remain in the ground during the 20

year new superceding license period, the radioactive effluent will continue to be leached into the Hudson River, potentially causing great harm to human life, as 6 communities within the tidal area of the Hudson currently use the river for drinking water, New York City's emergency water station is location in Croton, just a few miles down River, and the County of Rockland has just received a proposal from United Water to use the Hudson River for drinking water.

Neither Entergy nor the NRC have identified an adequate aging management program for the various known and unknown leaks, thereby endangering public health and safety, by permitting unregulated radioactive waste to continue to be released into the environment during the 20 year new superceding license period. This is not only an aging management program issue, but also is indicative of irresponsible and negligent management by the Applicant and improper oversight by the regulator.

Critically, compromised pipes can cause or fail to mitigate a serious accident, including a core damage event. Therefore effects of or associated with aging including embrittlement, corrosion, rust, heat, and microbiological and chemical agents – may destabilize and weaken the tensile strength of the

piping and associated equipment and components. This presents an unacceptable risk during an extended life of the plant which must be specifically and fully addressed by the aging management program. The aging management plan iterated in the Indian Point application utterly fails.

The applicant has displayed plume maps of the strontium 90, tritium and cesium which is pooling underground due to the ongoing leaks, but have claimed the maps to be proprietary, in addition a few weeks after the deadline for Intervener Petition's the applicant will deliver a new leak report. Therefore FUSE respectfully requests that opportunity to amend this contention after the new leak report and plume maps are made available to the public Stakeholders be granted. This contention, though almost identical in word, is raised specifically for IP2, as it is our contention and belief that the safety and aging management issues need to be evaluated SEPARATELY for each reactor license, rather than co-mingled, and weighed as a singular reactor site.

Supporting Document References for This Contention:

1. NUREG/CR-5999 (ANL-93/3), "Interim Fatigue Design Curves for Carbon, Low-Alloy, and Austenitic Stainless Steels in LWR Environments," April 1993.

2. NUREG/CR-6260 (INEL-95/0045), "Application of NUREG/CR-5999 Interim Fatigue Curves to Selected Nuclear Power Plant Components," March 1995.

3. NUREG/CR-6583 (ANL-97/18), "Effects of LWR Coolant Environments on Fatigue Design Curves of Carbon and Low-Alloy Steels," March 1998.

4. NUREG/CR-5704 (ANL-98/31), "Effects of LWR Coolant Environments on Fatigue Design Curves of Austenitic Stainless Steels," April 1999.

5. NUREG/CR-6674 (PNNL-13227), "Fatigue Analysis of Components for 60-Year Plant Life," June 2000.

6. U. S. Nuclear Regulatory Commission, Generic Safety Issue 190, "Fatigue Evaluation of Metal Components for 60-Year Plant Life."

Contention 39- Severe Accident Mitigation Alternatives.

Current analyses relies on an assumption that there are no blocked steam generator tubes. Where as IP2 and IP3 both have corrosion and blocked tubes. Therefore the SAMA analysis is inadequate. This was recently publicly discussed in ACRS meeting in May 2007, and is the subject of an EPRI report which apparently supports the inadequate current analytical approach. In fact, IP 2 has blocked tubes numbering into the hundreds.

Contention 40-Applicants have failed to meet the mandates of NEPA, of NRC 10CFR 51.53 post construction environmental reports or of NRC 10CFR 51.21 actions requiring environmental assessments in their applications or have deliberately attempted to conceal refurbishment issues

and the risks associated there with from the NRC and/or members of the public.

The required EIS Supplemental Site Specific Report required to fulfill the requirements of NEPA, and codified in 10 CFR Rules and Regulations as defined in 51.21 and 51.53 requires NRC licensees filing a LRA for the purpose of license extension to include as a part of the EIS Supplemental Site Specific Report any refurbishment issues/plans and the environmental risks associated with said refurbishment. Entergy by evidence provided below failed to comply with this rule.

In Entergy's jointly filed LRA for IP2 LLC, in Appendix E, Supplemental Environmental Report, the applicant(s) claim there are no refurbishment issues, thus no environmental concerns which would need to be addressed. To have refurbishment on the scale of reactor head replacement procured, and the engineering package in place at this stage makes this misrepresentation by Entergy is more than a simple error. Hundreds of people are involved in a decision to replace reactor heads, and the costs require very senior management to approve such a costly refurbishment plan. This reality of Senior Management involvement and knowledge is

[7]conclusive proof that the applicant egregiously, misrepresented this issue in their application, in their Supplemental Environment Report which is attached to their LRA and marked as Appendix E. Specifically, we have ascertained that Entergy plans a significant refurbish of the reactors in the years 2011 and 2012 respectively, with said refurbishment plans including the replacement of IP2 and IP3's Reactor Vessel Heads.

Entergy Replacement Reactor Vessel Head

(A) Customer: Entergy

(B) Projects: ANO #2 (Site Delivery: January, 2008), Waterford #3 (Site Delivery: February, 2008), Indian Point #2 (Site Delivery: October, 2011), and Indian Point #3 (Site Delivery: October, 2012)

(C) Primary Contractor: Westinghouse

(D) Scope: Four (4) RRVHs

(A) Two (2) sets of CRDM (for Indian Point #2 & 3 only)

(B) Manufacturer: DOOSAN (EMD supplies CRDM as the subsupplier)

Entergy is a multinational corporation with extensive self proclaimed knowledge and expertise in the nuclear reactor industry. With ownership

[7] This was uncovered by a extensive **investigation using various Internet search engines including Google.**

rights to eleven nuclear reactors in America, as well as being a partner in the NuStart Consortium currently vying to be one of the first companies to site and build a new generation AP1000 reactor here in America.

Entergy is a self proclaimed leader in the nuclear industry, and a major player in the industry's attempts at a Nuclear Renaissance. In light of Entergy's self proclaimed and trumpeted standing in the industry, the omission of this significant and already planned reactor refurbishment plan from the Supplemental Environmental Report attached to Entergy's LRA as Appendix E was neither accidental, nor a mere oversight in compilation of their application. Some might even go so far as to say Entergy is a low life, filthy dirty lying scum, and as the crafter of this contention, I would probably agree with them. But then, that seems to be the acceptable NORM in the nuclear industry.

Further, Entergy offers itself up as a supplier of expert assistance in the filing of LRA's to other NRC licensees considering a 20 year license renewal for their own facilities. There is but one logical conclusion of fact that can be reached in this contention. IP2 LLC, IP3 LLC and Entergy have deliberately, egregiously, negligently and with malice have submitted a

materially false LRA. That's right, scoundrels of the worse, lower than OJ Simpson and Adolph Hitler. Don't gasp, nuclear kills, and we all know it, and now Entergy wants to omit damning information from their LRA in the name of a Nuclear Renaissance...what pisses everyone off, is that deep down in your vile black hearts, you know this is truth.

In an attempt to hide significant environmental, health and safety concerns, to wrongfully streamline their path to license renewal, they have deliberately hidden material facts from the staff of the NRC, and members of the general public living in the host community in and around Indian Point.

Basis for Contention

Realizing that the second largest reactor owner in America is hiding significant refurbishment issues, is perpetrating a fraud upon an agency of the Federal Government raises concerns that Entergy is involved in criminal behaviors that could greatly impact the safety of our community, and are a significant violation of 10 CFR 50.5 and 50.9.

The applicant for license renewal of IP2 LLC have not fulfilled their legal obligation as delineated in NEPA reference and the Code of Federal

Regulations reference to prepare and submit, as part of their applications, a description of the proposed refurbishment actions, including each applicants' plans 'to modify the facility' and describe in detail the modifications affecting the environment or affecting plant effluence that affect the environment' 10CFR 53(c) (1)(2).

Moreover, 10CFR 5 (c)(3)(ii)(E) mandates that 'all license renewal applicants shall access the impact of refurbishment and other license renewal related construction activities on important plant and animal habitats. Additionally, the applicants shall assess the impact of the proposed action on threatened or endangered species in accordance with the Endangered Species Act'. Replacement of IP2 is not only a refurbishment issue, but a very significant one which affects the environment, public health and safety on many levels that must be evaluated in the license renewal process. Included in these issue, is the means and method of disposal of the old reactor vessel heads once replaced with new ones. Indian Point was not designed, nor licensed to act as a radioactive waste storage facility. With the closing of Barnwell to Indian Point radioactive waste streams beginning in 2008, the impacts of any and all radioactive waste streams generated at

Indian Point, and their disposal and or storage become and issue of paramount importance for the safety of our community.

The applicants have not only failed to provide the mandated reports in the specificity required but provided absolutely no environmental reports at all on their plans to change or modify the facility or refurbish same. The applicants, at section 3.3 of their Environmental Report Refurbishment Activities, simply and dismissively state that 'there are no such refurbishment activities planned and/or anticipated at this time' and thus provide the Nuclear Regulatory Commission no Environmental Report on refurbishment.

Omitted is the fact Entergy has already ordered Replacement Reactor Vessel Heads for Indian Point #2, with delivery dates schedules for October 2011, as evidenced by the attached page (a true and accurate copy of the PDF web based file) of the Doosan Heavy Industries Construction Co., Ltd presentation at the Burns & Roe 17th Annual Seminar, Powering the Future, March 21, 2007. This notice is absolute defacto proof of Entergy's attempts to defraud. It is also proof they are just PLAIN SLEEZY, but then after they

held New Orleans ransom after Hurricane Katrina until they got almost $300 Million in grants, we all knew that already.

This undisclosed, undeclared major refurbishment issue indicates Entergy's willful omission of a vital fact in their relicensing application, as it was never mentioned in Entergy's re-licensing application, nor the Supplemental Environmental Report marked as Appendix E. A design basis inspection of the integrity of inter alia reactor vessel head and further investigation of known rust in the dome and steel containment was delayed 5 years. Reference Boric Acid corrosion and of the rust in the reactor vessel head were/are known degradation issues known by the licensee IP2 LLC, since at least 2003, and by Entergy, and are a major contributory factor in their decision to plan the significant refurbishment of reactor vessel head replacement. Reference

As Stakeholders living within 3, 10 or 50 miles of the Indian Point facility owned by two unique and separately owned Entergy Limited Liability Corporations, any reactor refurbishment issue that contributes to any potential environment, health or safety risks is of great concern.

Ignoring significant information is in contradiction to the NRC regulations which requires applications to be complete, accurate and truthful. Therefore the NRC has no choice but to reconsider acceptance of the renewal application as complete and accurate, and revoke its decision to accept Entergy's application as complete, and further should take administration and/or legal action to hold their licensee accountable.

Contention is Within Scope in the License Renewal Process

The reactor core coolant system, and all its primary parts, including piping are within the scope of the license renewal process, as is the reactor vessel head. By proxy, and by NRC regulation, planned refurbishment/replacement of the reactor head for IP2 is within scope. Therefore, this contention brought against IP2 regarding refurbishment is within the scope of Entergy's License Renewal Application.

Contention Raises Material Issues of Fact and/or Law

There exists an issue of fact and/or law that exists in this contention. Though it is doubtful IP2 LLC can defend a position that reactor vessel head replacement is a refurbishment issue, they have no real choice but to make a

feeble attempt to defend that position in light of its omission from the LRA. The omission of the reactor vessel head replacement from the Environmental Supplement attached to the LRA, and whether said omission was deliberate in nature is also and issue of fact that must be and can only be resolved by a qualified board, or in a court of law.

1. Reactor vessel head replacement is never a like-for-like switch of components/equipment, and is one of the most critical refurbishments that a reactor licensee can under take, and in some cases can even require cutting a hole into the containment.
2. Reactor vessels are far from tangential components. They contain the nuclear fuels in the plants, and, over time, are irradiated which can lead to embrittlement, deterioration, loss of material, and less able to withstand flaws which may be present. The 2002 incident at the Davis Besse Nuclear Plant highlights the integral nature of the vessel and the vessel heads. Despite this vast knowledge pool, Entergy and IP2 LLC neglected to list, describe or report the vessel head replacement nor any other refurbishment actions in the environmental supplement of the LRA and marked as Appendix E.
3. The omission of significant refurbishment issues from the EIS Appendix E lead petitioners to believe that Entergy and IP2 has

egregiously taken the position that the above and other changes or reactor modifications are not within the purview of the LRA application despite NRC regulations to the contrary. The change/modification/replacement of the vessel heads and presumably other proposed, yet undisclosed actions, are within the scope of 10CFR 53 and 10CFR 54.21. As stated by the Nuclear Regulatory Commission:

> *For the purposes of the Environmental Impact Review, refurbishment describes an activity or change in a facility that is needed to support operations during the renewal term.*

The replacement of the reactor vessel heads are needed to support operations during the applied for renewal term and 10CFR 53 and 10CFR 54.21 would require Entergy and IP2 to have included their replacement in the environmental report delineating with specificity all potential impacts remediations and alternatives should have been set forth, inclusive of, but not limited to, worker radiation exposure, construction traffic and noise, construction runoff, radiation releases, impacts on plant and animal habitats, and the impact of the proposed actions on threatened or endangered species in accordance with the Endangered Species Act. In the name of corporate profits, Entergy attempted to circumvent the law, and NRC regulations.

Contention is Supported By Facts and/or Expert Opinion

Then Stakeholder Interveners have met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process, and hearings lay out some basic criteria that a Stakeholder must meet to have a contention accepted for further review. *Section 2.309(f)(v) requires,*

> *...a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the H petitioner intends to rely to support its position on the issue.*

Contention Raises a Material Matter of Fact or Law

Petitioner, Director of FUSE, Sherwood Martinelli brought to the attention of the NRC the fact that Entergy's LRA and attached EIS marked as Appendix E had no refurbishment issues listed shortly after receiving his hard copy, and at least six weeks before the NRC officially accepted the application for review on August 1, 2007. A few days later, FUSE USA FORMER President Susan Shapiro located the proof that Entergy had already placed orders for new reactor vessels heads. NRC places great importance on integrity and honesty in the submission of documents to the

agency, to ensure trustworthiness and integrity are beyond reproach. The NRC writes,

> *It is paramount to the mission of the NRC for the licensee to maintain information and communicate with the NRC in such a manner that all information is complete and accurate in all material respects to allow the NRC to complete their mission.*
>
> *It is the responsibility of the licensee personnel to work together to ensure the health and safety of the public and plant personnel.*
>
> *Effective, complete and accurate communication is required to ensure this vital goal, regardless of the potential financial or business impact.*

Reactor vessel head replacement is a complex reactor refurbishment project that involves almost every major department, and 100's of personnel, including Senior Members of Management. Omission of such a significant project from the LRA application of IP2 is a serious violation of 10 CFR 50.5 and 50.9.

(i) **§ 50.5 Deliberate misconduct**

(A) Any licensee, applicant for a license, employee of a licensee or applicant; or any contractor (including a supplier or consultant), subcontractor, employee of a contractor or subcontractor of any licensee or applicant for a license, who knowingly provides to any licensee, applicant, contractor, or subcontractor, any components, equipment, materials, or other

goods or services that relate to a licensee's or applicant's activities in this part, may not:

(1) Engage in deliberate misconduct that causes or would have caused, if not detected, a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any license issued by the Commission; or

(2) Deliberately submit to the NRC, a licensee, an applicant, or a licensee's or applicant's contractor or subcontractor, information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

(B) A person who violates paragraph (a)(1) or (a)(2) of this section may be subject to enforcement action in accordance with the procedures in 10 CFR part 2, subpart

(C) For the purposes of paragraph (a)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows:

(1) Would cause a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation, of any license issued by the Commission; or

(2) Constitutes a violation of a requirement, procedure, instruction, contract, purchase order, or policy of a licensee, applicant, contractor, or subcontractor.

(ii) 50.9 Completeness and accuracy of information.

(A) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee *shall be complete and accurate in all material respects.*

(B) Each applicant or licensee shall notify the Commission of information identified by the applicant or licensee as having for the regulated activity a significant implication for public health and safety or common defense and security. An applicant or licensee violates this paragraph only if the applicant or licensee fails to notify the Commission of information that the applicant or licensee has identified as having a significant implication for public health and safety or common defense and security. Notification shall be provided to the Administrator of the appropriate Regional Office within two working days of identifying the information. This requirement is not applicable to information which is already required to be provided to the Commission by other reporting or updating requirements.

Realizing the importance of public trust, and how easily it can be lost, the NRC places great importance on the completeness and accuracy in all materials submitted to them, and this standard takes on far more importance in and issue as vitally important as License Renewal of a reactor, which has such large term potential impacts on a community, public health and safety. Hells bells, the board dismissed all of FUSE USA's contentions because Entergy whined, and claimed they were CONFUSING. Not question the quality of their attorneys, or the lack thereof, surely if our contentions were dismissed, this egregious CRIME is worthy of having Entergy's application dismissed, and their license terminated? The importance of document accuracy and completeness is perhaps best expressed in this NRC statement:

> *Licensing - the conscious of the plant, even at the expense of financial or business impact.*

This nefarious omission of a crucial refurbishment issue in Entergy's License Renewal Applications for IP2 and IP3 raise disturbing questions that deserve further review. Additionally, this significant violation of both 10 CFR 50.5 and 50.9 brings into question Entergy's right to be in possession of a License to operate a reactor. NRC position on the completeness and accuracy of documents and communications with the NRC by licensees is

clear, and absolute. Included in the agency's core values on this topic are the beliefs that the heart of an effective organization is complete and accurate communication. Further, they believe that incomplete or inaccurate communication will have a lasting negative effect on the NRC, the plant operation and most importantly the public trust and confidence. Let's show these low life corporate thugs a lesson, make and example of them for the industry, and to restore public faith.

The NRC sees misrepresentation in Licensee communication and documents as a serious violation of NRC Rules and Regulations. Further, the very principals of NRC's enforcement policy make it abundantly clear that significant violations of the 10 CFR rules and regulations can be subject to license suspension and/or termination.

(iii) NRC Enforcement Policy Excerpts

The primary purpose of the NRC's Enforcement Policy is to support the NRC's overall safety mission in protecting the public health and safety and the environment. Consistent with that purpose, the policy endeavors to:

(A) Deter noncompliance by emphasizing the importance of compliance with NRC requirements,

(B) Encourage prompt identification and prompt, comprehensive correction of violations of NRC requirements.

Therefore, licensees, contractors, and their employees who do not achieve the high standard of compliance which the NRC expects will be subject to enforcement sanctions. Each enforcement action is dependent on the circumstances of the case. However, in no case will licensees who cannot achieve and maintain adequate levels of safety be permitted to continue to conduct licensed activities. If this was true, Entergy would have already lost their license.

The petitioners/interveners/stakeholders have successfully raised very troubling issues of both fact and law. Entergy, IP2 and IP3 at best have made a critical error that should see the application dismissed. At worst, they have wantonly, egregiously and nefariously attempted a fraud upon the NRC. The undersigned therefore respectfully request that both IP2 and IP3 LRA applications be denied.

Alternatively, Stakeholders request that the NRC order Entergy and IP2 LLC voluntarily withdraw their application, which could be resubmitted at a later

date when the fatal errors in same have been corrected to include in their respective Environmental Reports, a full delineation of any and all refurbishments, key component modifications, variances, deviations, exemptions, exceptions, and changes of the CLB, as well as a complete and thorough impact, mitigation, alternative analysis study/statement on each, prior to the NRC accepting the application for license renewal consideration and acceptance for review.

Contention 41-Environmental Effects and Cascading Consequences on the Aging structures, deteriorated conditions and compromised systems, of a Terrorist Attack On Aging Indian Point Nuclear Reactors are not considered in the LRA for IP2.

On September 11th, 2001 America experienced the darkest day in our Nation's history when two planes hijacked by radical Islamic terrorists who ruthlessly, and with malice deliberately used these planes, filled with innocent citizens, as weapons of mass destruction, smashing said planes into the Twin Towers known as the World Trade Center in New York, New York.

This Contention is written in honor of the brave men and women who gave their lives in the World Trade Center, American Airlines Flight 11,

American Airlines Flight 77, United Airlines Flight 175, United Airlines Flight 93 and the Pentagon.

Stakeholders claim that the environmental effects and cascading consequences on the aging structures, deteriorated conditions and compromised systems, of a terrorist attack on Indian Point Nuclear Plant are not considered in the LRA for IP2, nor its fatally flawed Environmental Report marked as Exhibit E.

On September 11th, 2001 America experienced the darkest day in our nation's history when two planes filled with terrorists flew into the World Trade Center in New York, New York.

2996 brave souls woke up to a bright beautiful sunny fall day, not knowing that in a few scant hours they would become the faces etched into our souls, the victims never forgotten, the heroes remembered and honored each and every year as America remembers our darkest hour. The lives of every American were changed that day, the destiny and direction of our nation changed forever. We were attacked on our home soil, the sacred lands of America invaded by radical Fundamental Islamic terrorist bent on forcing

their evil will upon a free people, using fear, intimidation and despicable terrorist's attacks to bring America to its knees.

One of the hijacked planes used the Hudson River as a guide, flew directly past the twin domes of the Indian Point Reactors. Notably, the 9/11 Commission learned that the original plan for a terrorist spectacular was for a larger strike, using more planes, and including an attack on nuclear power plants. In an Al-Jazeera broadcast in 2002, one of the planners of 9/11 said that a nuclear plant was the initial target considered.

We also know from the 9/11 Commission's investigation that, even after the plot was scaled down, when Mohammed Atta was conducting his surveillance flights he spotted a nuclear power plant (unidentified by name, but obviously the Indian Point nuclear power plant) and came close to redirecting the strike. National Research Council analyses and post-9/11 intelligence has also indicated that the U.S. nuclear infrastructure is viewed as an alluring target for a future terrorist spectacular. As the Chairman of the National Intelligence Council stated in 2004, nuclear power plants "are high on Al Qaeda's targeting list," adding that the methods of Al Qaeda and other terrorist group may be "evolving."(COUNCIL ON INTELLIGENT

Investigators discovered that the original plan was to take out at least one of the reactors, that the terrorists intended to visit a disaster far worse than Chernobyl on the beatific rolling hills and mountains of the Hudson River Valley just 24 miles up the River from Manhattan, but at the last minute decided to attack the Twin Towers instead.

The nuclear industry, NEI and the NRC use a statistical analysis to justify eliminating the environmental effects of a terrorist attack from review and consideration in Entergy's License Renewal Applications for IP2 and IP3. Despite the ruling in Diablo Canyon's "Mother's For Peace" case the Ninth Circuit Court ordered that the effects of a terrorist attack are to be included in the Environmental Review required by NRC regulation 10CFR 51.53 to fulfill the NRC NEPA requirements. However, the NRC has decided to

allow industry financial concerns to over ride the Agency's singular and most important goal, the protection of human health and the environment.

Even though since 9/11 an entire cabinet level department has been created and billions of tax payer dollars are being spent on Homeland Security to protect against terrorism.

The problem is, statistics, risk modeling analysis worked out on some computer do not reflect the reality that is life. As those towers came down, as New Yorkers and citizens from around the world lost their lives in the blink of and eye, NRC assurances that and attack on a nuclear reactor were so remote as to almost not exist rings falsely in our ears.

We, the citizens of New York know better than any one that terrorists can plan, mount and carry out a successful attack on a target within the borders of the United States of America, we learned first hand how horrendous the aftermath of such an attack can be. We do not accept NRC false assurances that a pathetic DBT, and a poorly trained private security force (rent-a-cops from the likes of Wackenhut) can keep us safe. The costs associated with the aftermath of 9/11 are far to high to count, the loss of human life far to

priceless to put a dollar value on. We can replace the energy Indian Point produces, but not the lives that would be lost in the aftermath of an attack on the plant.

So, in honor of those fallen heroes, we the citizens of the Hudson River Valley living within 50 miles of Indian Point raise our voices as one in demanding that the environmental impacts and costs associated with a terrorist attack be included in Entergy's License Renewal Application process for Indian Point Reactors Two and Three as was ordered by the Ninth Circuit Court of Appeals in the Diablo Canyon "Mothers For Peace" ruling.

Basis for Contention

As stakeholders, petitioners, and property owners living within 3, 10 and 50 miles of the Indian Point facility owned by two unique and separately owned Entergy Limited Liability Corporations (IP2 LLC and IP3 LLC) we are extremely concerned about the potential effects of any incident at the Indian Point Energy Center Site that could result in off site release of radioactive contaminants.

1. The National Environmental Policy Act (NEPA) requires the NRC to require and environmental study of the effects of given events in evaluating a licensing request on the part of their licensees. The preamble of this act reads in part:

> *"To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation..."*

The law applies specifically to federal agencies and the programs they fund and/or regulate. Essentially it requires that, prior to taking any "major" or "significant" action, the agency must consider the environmental impacts of that action.

2. Entergy's License Renewal Application (LRA) for IP2 and the 20 year period of additional reactor operation it represents is a "major" or "significant" event/action on the part of a Federal Agency, therefore the rules of law and procedure found in NEPA apply to this relicensing process. NRC as and agency has accepted the reality that NEPA applies to many of the actions they take as and agency as is witnessed by their own regulation 10CFR 51.53 which was created

as the NRC's implementing criteria for their agency's responsibilities in abiding by the laws and constraints found in NEPA.

3. The action forcing provision of the NEPA law requires an Environmental Impact Statement (EIS) to be written, which outlines the risks, and the costs to human health and the environment, should that risk become a reality for all major federal actions which may have a significant impact on the environment. Further, the requirements of NEPA state that the agency (in this case, NRC) must involve the public by giving them notice and allowing them to comment on the proposal. The only exception is if the proposal falls within a previously-established "Categorical Exclusion" which is a category of actions that generally are not likely to have significant impacts. In such rare cases neither an EA nor an EIS needs to be prepared so long as the proposed action does not have any unusual characteristics that create potential for risk significant impacts.

Even if the relicensing of IP2 fell into this "Categorical Exclusion", it would still require an EIS by virtual of the unusual characteristics of nuclear reactors that raise the potential for risk significant impacts.

4. The NRC in numerous licensing activities involving nuclear facilities, specifically in relicensing actions, has wrongfully attempted to narrow the scope of the EIS. Specifically, the NRC has attempted to remove from inclusion in the EIS some crucial risks and the costs of any aftermath of such events.

A) The aftermath and significant impacts on the environment should a successful terrorist attack occur at the Indian Point Energy Facility located in Buchanan, New York. NRC wants to rely upon best estimate modeling by the self vested nuclear industry to claim the likelihood of a terrorist attack is, all but, impossible.

As citizens living in New York, the hallow land at Ground Zero acts as a constant reminder that terrorists can and will attack at any given time, and can plan, mount, launch and successfully carry out a successful attack on US infrastructure targets. The NRC cannot refute the very real fact that a large commercial aircraft commandeered by terrorists flew right past the twin domes of Indian Point on September 11th, 2001 on its journey to crash into the Twin Towers in Manhattan.

B) The aftermath and significant impacts on the environment should the Emergency Evacuation Plan for Indian Point fail to function as envisioned in the case of a significant incident or attack involving off site release of radioactive contaminants occur should also be a part of the EIS for IP2's LRA. The fact that the Emergency plan is a living fluid document is NOT THE ISSUE, the issue is what happens, what are the environmental costs if the plan does not work, or function as envisioned, as was/is the case in the aftermath of Hurricane Katrina. (Witt Report) We are not saying the Emergency Plan itself is in scope, but the aftermath of its failure and/or non workability are within scope of this process under the rules and guidance of NEPA. (NEPA LAW)

The aftermath should the NRC's DBT, which dictates the security requirements and types of events that Indian Point must be capable of defending against in the case of a security breach of any type, including but not limited to A) a significant nuclear incident leading to a major release of radioactive contaminants, B) a terrorist attack, or C) a successful action by malcontent or sabotage is also within scope. The NRC may wish to remove security from the scope of this hearing, but NEPA demands that the possible

failure of those systems or programs, such as security, and the environmental costs of their failure are within scope. The voluminous number of security breaches which have occurred at critical infrastructure, including nuclear weapons and power facilities after 9/11 (such as the 16 foreign-born construction workers who were able to gain access to the Y-12 nuclear weapons plant with falsified documentation) demonstrates that nuclear "insiders" must be deemed potential active participants in an attack. In addition Indian Point is vulnerable to acts of sabotage against off-site power transmission, as was evidenced during the 2003 blackout which struck the Northeast. Various computer systems, at Indian Point, had to be removed from service, including the Critical Function Monitoring System, the Local Area Network, the Safety Assessment System/Emergency Data Display System, the Digital Radiation Monitoring System and the Safety Assessment System.

C) Again, the contents of the DBT, nor the fact that said DBT is a living, constantly changing document, are not the issue nor focus of NEPA and its requirements, but instead what is at issue, is the potential aftermath, if said DBT is found to be inadequate in scope and design.

These three examples are given, as they each would play a part in the aftermath of a terrorist attack at the Indian Point Energy Center located in Buchanan, New York.

5. NEPA's intent and purpose is not in weighing the odds of and event occurring, but instead is intended to measure the risks and costs to the environment should such and event occur. In *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1028 (9th Cir. 2006) the courts Memorandum and Order in part states:

> *NRC's "categorical refusal to consider the environmental effects of a terrorist attack" in this licensing proceeding was unreasonable under the National Environmental Policy Act (NEPA).*

It is abundantly clear in the Ninth District Court's ruling, that the odds of a given event are not at issue, but instead the issue is the effects such a postulated event or events would have on the environment. The Ninth Circuit Court Order made it abundantly clear that the NRC must take into consideration the environmental effects of a successful terrorist attack. The NRC had wrongfully attempted to narrow the scope of what will be included within their review based on the NRC's best questimates on the odds of such an event occuring.

It is pointed out here, large and small, that there have been 9,438 terrorists events around the world since September 11, 2001. Though most of these attacks were minor in scale and/or thwarted by authorities, the number of attacks speaks volume. The risk of a terrorist attack on a nuclear reactor site is a very real possibility.

NEPA requires the NRC and licensee to answer what are the evironmental costs of a successful attack of a terrorist attack on a Nuclear Reactor site, such postulated events should include, but not be limited to, evaluation of the risks associated with attacking various components of the facility independently and jointly, including for instance the reactor itself, the control room, the spent fuel pools, and the water intake and/or discharge channel, and the attack scenerios should include the attacking force of 9/11, which means scenerios and their aftermaths should include an attacking force of no less than 18 terrorists, the potential use of up to four large commercial airplanes.

Further, attacks should include use of known terrorists weapons of choice which include large vehicle bombs (such as the one used in the Oklahoma City Bombing orchestrated by home grown terrorist Timothy McVay), armor piercing munitions (used for instance by LA

gangs and drug cartels), Shoulder launched rockets and grenades, and Semi-Automatic 50 Caliber Rifles (which can be accurate in hitting a target such as a guard tower from up to one mile away, and capable of doing extensive damage from a distance of up to four miles (if successfully hitting a target), and mortars.

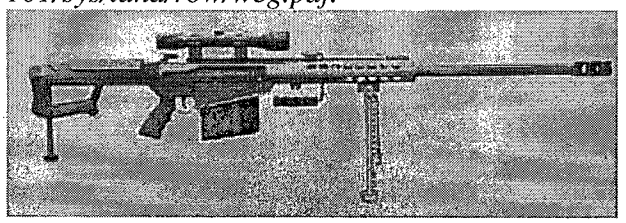
Sniper/Anti-Materiel Rifle: *53 This weapon was developed by the U.S. military (M82A1) in the 1980s to destroy jeeps, tanks, personnel carriers, and other vehicles. The 28 lb. (12.7 kg) weapon saw extensive use in the Persian Gulf War where a single soldier could disable multiple vehicles in a matter of seconds. It fires 50 caliber (0.50 in [1.27 cm] diameter) ammunition and is considered one of the most destructive and powerful weapons legally available in the United States. The price of this weapon can range from $4,000 to $7,000.*

This semi-automatic weapon can hit targets accurately one mile (1.60 km) away and can inflict effective damage to targets four miles (6.44 km) away (that is, if the round strikes the target). It can also fire specialized ammunition capable of piercing several inches of metal, exploding on impact, or providing tracers for accurate night shooting. In 1999, GAO investigators noted criminal misuse of 50 caliber weapons in connection with known domestic and international terrorist organizations,

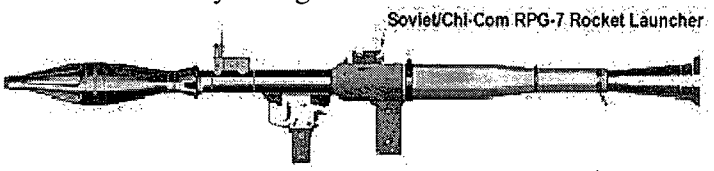
Publicly available sources contain significant weapon capability information:

– U.S. Army's Field Manual FM 3-06.11 [B-1], Combined Arms Operations in Urban Terrain . Chapter 7 of this document is particularly useful and contains weapon penetration information. A wide selection of Army Field Manuals are publicly available for reference and download at www.adtdl.army.mil .

– The Worldwide Equipment Guide [B-2] serves as an interim guide until the publication of Army Field Manual FM 100-65, Capabilities-Based Opposing Force: Worldwide Equipment Guide is published. The Worldwide Equipment Guide is available for reference or download at www.fas.org/man/dod-101/sys/land/row/weg.pdf.



Rocket Propelled Grenade Launcher: The RPG-7 (which is shown below) is a very simple and functional weapon. It is a shoulder-fired, muzzle-loaded grenade launcher that launches a variety of fin-stabilized, oversized grenades from a 40 mm (1.57 in.) tube. It is effective against fixed emplacements, vehicles like tanks, and personnel. Its capability is dependent upon the type of grenade used. Using antitank grenades, its effective range is 500 m (0.31 mi) when used against a fixed target and 300 m (0.19 mi) when fired at a moving target. Its maximum range is 920 m (0.57 mi), at which point the round self-destructs after its 4.5-second flight. The antitank round has a lethal bursting radius of 4 m (13.12 ft) when used on an area target. Using an antipersonnel grenade, the RPG-7 can be effective at 1100 m (0.6835 mi). A trained two-man team can fire 4–6 rounds per minute. The weapon is light enough to be carried and fired by a single individual.



Indian Point is vulnerable to waterborn attacks and aerial assaults. A meltdown can be triggered even at a scrammed reactor if cooling is obstructed.

Water intake is also essential to the proper function of spent fuel pools. Yet at certain nuclear plants, cooling systems may be highly vulnerable. At both Indian Point and Millstone Power Station, in particular, water intake pipes have been identified by engineering experts as exposed and susceptible to waterborne sabotage.

> In March 2005, a joint FBI and Department of Homeland Security assessment stated that commercial airlines are "likely to remain a target and a platform for terrorists" and that "the largely unregulated" area of general aviation (which includes corporate jets, private airplanes, cargo planes, and chartered flights) remains especially vulnerable. The assessment further noted that Al Qaeda has "considered the use of helicopters as an alternative to recruiting operatives for fixed-wing operations," adding that the maneuverability and "non-threatening appearance" of helicopters, even when flying at low altitudes, makes them "attractive targets for use during suicide attacks or as a medium for the spraying of toxins on targets below."

The vulnerability of nuclear power plants to malevolent airborne attack is detailed extensively in the Petition filed by the National Whistleblower Center and Randy Robarge in 2002 pursuant to 10 CFR Sec. 2.206. A number of studies of the issue are also reviewed in Appendix A to these Comments. The particular vulnerability of nuclear spent fuel pools to this kind of attack is detailed in the January 2003 report of Dr. Gordon Thompson, director of the Institute for Resource and Security Studies entitled "Robust Storage of Spent Nuclear Fuel: A Neglected Issue of Homeland Security" and in the findings of a multi-institution team study led by Frank N. Von Hippel, a physicist and co-director of the Program on Science and Global Security at Princeton

University and published in the spring 2003 edition of the Princeton journal Science and Global Security under the title "Reducing the Hazards from Stored Spent Power-Reactor Fuel in the United States." It is worthy of note that, even post-9/11, general aviation aircraft have circled or flown closely over commercial nuclear facilities without military interception.

Contention is Within Scope in the License Renewal Process

NRC regulation 10CFR 51.53 which is the implementation and enforcement device created by the NRC to abide by the terms and regulations of NEPA demands that the environmental costs of ALL POTENTIAL AND/OR POSTULATED RISKS associated with a major agency action be considered in a Environmental Impact Statement, and further requires that citizens in the potentially affected community be given a chance to have public input into the process and creation of said EIS.

Further, a recent Ninth District Circuit Court Decision in *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1028 (9th Cir. 2006) we find guidance on the issue at hand in the courts Memorandum and Order in which they state unequivocally:

NRC's "categorical refusal to consider the environmental effects of a terrorist attack" in this licensing proceeding was unreasonable under the National Environmental Policy Act (NEPA).

These two points should be sufficient to prove that this contention is within scope of the process. However, we go further in pointing out that the NRC has provided its own "in agency precedent" to include the potential effects to the environment should there be a successful terrorist attack on a NRC licensed facility. In the license review of an application from Pa'ina Hawaii, LLC., a Hawaiian-owned company, to build and operate an underwater pool-type commercial irradiator at a location near Honolulu International Airport, the NRC staff decided, of their own accord, to include and review the potential of a terrorist attack on the facility, and the resulting environmental effects should a terrorist attack be successfully launched on said facility during its period as a licensed NRC site.

NRC has both a legal and moral responsibility to treat all Stakeholders in a fair and equal fashion, in all regions of the country. The NRC has established a precedent of including the environmental effects of a terrorist attack on a Licensee site as a part of the EIS in the license renewal process.

A Ninth Circuit Court Decision instructed and ordered the NRC to include as a part of the EIS the environmental effects of a successful terrorist attack.

It is clear from the presentation of facts in this document that said contention is within the scope, and deserving of a closer review by the board.

Contention Raises a Material Issue of Fact or Law

Entergy is of the opinion that they are not required to include as a part of their LRA for IP2 the environmental effects of a successful terrorist attack on the Indian Point facility. NRC have exhibited a great reluctance to abide by the legal responsibilities laid out in NEPA, and the NRC's own regulation 10CFR 51.53, as is witnessed by a review of the 48 LRA's that precede the applications for IP2 LLC and IP3 LLC.

Although the commercial interests of the nuclear industry are of valid concern to nuclear utilities and the NEI; they should not be of concern to the NRC. There is no justification for jeopardizing national security and the health and safety of the public and violating NEPA - even to the smallest degree - to safeguard corporate profits.

The Ninth District Court decision, coupled with the NRC own precedent set in the licensing process for the Irradiation Facility in Hawaii shows there are material issues of both the facts and laws presented in this contention. The Stakeholders of the host community surrounding Indian Point, hold a very different opinion on these facts than does the NRC. The attacks on our sovereign soil here in New York have shown us, proved to us that a terrorist attack is possible, and worthy of inclusion in the EIS for this license application.

Contention is Supported by Facts and/or Expert Opinion

Intervener has met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process, and hearings lay out some basic criteria that a stakeholder must meet to have a contention accepted for further review:

Section 2.309(f)(v) requires "a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the H petitioner intends to rely to support its position on the issue."

Additionally, it is pointed out that the rules and regulations dealing with hearings and contentions accepted therein goes further to define specifically the minimum burden of proof necessary to have a contention accepted for further review and scrutiny:

An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality as that is necessary to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material

facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).

It is clear here, that this contention more than meets the minimal standards necessary for acceptance of this contention. The petitioner in this case has made "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate."

Contention Raises a Material Matter of Fact or Law

1. NRC and PG&E refused to consider the effects on the environment in the case of a successful terrorist attack on the proposed Spent Fuel Facility at Diablo Canyon.
2. Mother's For Peace successfully litigated, and the Ninth Circuit Court handed down a Memorandum and Order that effectively and concreted established law stating that review of the environmental

effects in the case of a terrorist attack are to be included in the EIS in a licensing procedure and/application.

3. NRC subsequently implemented a rewrite of the EIS in that licensing review to include (however inadequately) a review of the issues.
4. NRC set agency precedent when it voluntarily included the environmental effects of a possible terrorist attack in the EIS for the licensing of a irradiator facility in Hawaii.
5. FUSE, and the Stakeholders of the host community claim that NEPA's intent is clear, and that all possible risks and incidents and their potential effects on the environment must be reviewed and included in the scope and creation of the EIS for the IP2 LLC LAR.

The petitioners have raised a material matter of fact or law, thus meeting the burden for further review.

This is the end point for all Part B contentions.

Part C-the contentions as submitted in this section of Petitioner/Stakeholders Formal Request for Hearing, and Petition to intervene spell out contentions that, from stakeholders perspective deal with IP3 LLC. From stakeholder perspective, there exists in this License Renewal Application Process three very distinct and and different groups of contentions, though some may seem repetitive in nature and scope. Part C contentions are written for IP3.

FUSE IP3 Contentions Submitted FUSE USA (here after referred to as FUSE, stakeholder, interested party, affected citizen, property owner).

Contention 42- The License Renewal Application (LRA) fails to provide sufficient detailed information regarding technical, safety and environmental , issues as required by *10 CFR 2.309*.

FUSE asserts that the Applicant's LRA has not met the threshold of providing explicit specific technical information as required under *10 CFR54*, specifically with regard to Safety Analysis, Aging Management Plans, Internal Reactor Vessel Corrosion, Equipment Environmental and Qualification Program, Flow Accelerated Corrosion Program, Cooling System Program and other programs to numerous to mention.

The license renewal application submitted by applicant on May 3, 2007 and subsequently revised on June 22, 2007 fails to meet the threshold of providing explicit specific technical information as called for under *10 CFR § 2.309*, which plainly calls for "how the applicant will comply with the requirements" promulgated in *CFR54.21* and requires both a complete description of each program and a description of how the applicant will specifically address Aging Management." In the LRA submitted by the Applicant, these threshold requirements, are not included, or provided other than with non-specific, non-committal conclusory statements, examples of which include:

B.1.1 ABOVEGROUND STEEL TANKS

Program Description

The Aboveground Steel Tanks Program is an existing program that manages loss of material from external surfaces of above ground carbon steel tanks by periodic visual inspection of external surfaces and thickness measurement of locations that are inaccessible for external visual inspection.

7. Corrective Action

When adverse trends are identified, engineering will determine the appropriate course of action, which is documented through the site corrective action program. Specific corrective actions will depend upon the nature of the adverse trend and may include reanalysis, modified surveillance frequencies or activities, or fuel relocation.

A properly described program (using BAC as and example) which stakeholders can understand and grasp would possible state something to the effect of:

> ***The Aging Management program to address Boric Acid Corrosion (BAC) will consider both direct as well as symptomatic indications of RCS leakage. Periodic scheduled walk downs of no less than once every three months designed to identify and correct RCS leakage will be included.***
>
> ***The BAC Aging Management program will include requirements for monitoring, trending, and analyzing indications of reactor coolant leakage will be appropriately established. Entergy, the licensee, will initially base the program administrative leakage limits, as well as early identification of sustained step and rate changes, on an analytical and numerical analysis of historical leak rate data.***

Specific examples of incomplete and inadequate technical information include, but are not limited to: the Equipment Environmental Qualification Program, the Flow-accelerated Corrosion Program, in which the Applicant provided a one paragraph description of its planned Aging Management Program, which essentially credited the current Flow-accelerated corrosion ("FAC) program with no further explanation. Here, the Applicant points to the present Current Licensing Basis ("CLB") as sufficient. This is an ambiguous and generic approach that is rejected under both NUREG 1801, and 10CFR54 as well. The rules require that a specific

and particularized program define component and system scope, inspection criteria, methodology, frequency and remediation commitments when acceptance criteria for FAC inspections are not met.

This contention is fundamentally material to the Indian Point License Renewal Proceedings as a matter of law. The Applicant's failure to comply with the 10 CFR54 rules setting forth Age Related Management Programs makes it virtually impossible to review the legal or technical integrity regarding each of these programs. This raises fundamental and material issues to the entire LRA content as submitted by the Applicant.

Contention 43-Co-mingling three dockets, and three DPR licenses under a single application is in violation of C.F.R. Rules, Specifically *10 CFR 54.17 (d)* as well as *Federal Rules for Civil Procedure rule 11(b).*

Stakeholders assert that the Applicant's single LRA for three distinct licenses and nuclear plants is a violation of *10 CFR 54.17(d)*, as well as the *Federal Rules for Civil Procedure Rule 11(b)*, thereby causing the LRA review to be overly complex, unclear, and unduly confusing, and should be denied by the NRC.

The applicant has violated rule *10 CFR §54.17 (d)*, which states, "An applicant may combine an application for a renewed license with applications for other kinds of licenses."

This does not mean or intend to mean that the Applicant can co-mingle two applications for two license renewals, for Indian Point 2 and Indian Point 3, into one LRA filing. The LRA for Entergy's IP2 and IP3 becomes far more complicated, because components of Indian Point 1, which has been shut down for 30 years, are used and wrongfully relied upon by Indian Point 2, and to some degree IP3, therefore bringing into play and question Indian Point 1's Safestor status, which must be incorporated by reference, and fully evaluated in the License Renewal process.

IP2 and IP3 hold completely separate licenses to operate nuclear reactors. Each license is further held by a separately owned and controlled Limited Liability Corporation. In addition, the Applicant violates procedure governed by 10 CFR by not distinguishing the current Safestor status of Unit 1 decommissioning, and in fact seeking approval to make use of Unit 1 systems and/or components/infrastructure for extended operation of Unit 2, and to a lesser degree Unit 3. Further, the Safestor status of IP1 in light of admitted leaks brings into question the legality of it remaining in Safestor, and further, continued use of IP 1's components, coupled with postponement of Decommissioning (should IP 2 LLC and IP 3 LLC be granted a new superceding license) until IP 2 LLC is closed down in 2033, would make it impossible for the land occupied by IP 1 to be fully decommissioned and returned to unrestricted use in the 60 year period from the time said reactor was shut down.

Co-mingling applications is particularly material to Indian Point 2 and 3 given that each license has (1) separate dockets [50-247 and 50-286], (2) separate DPR numbers, (3) separate owners and License holders for most of their first 30 years of operation, (4) separate Architect/Engineers and (5) current ownership is further clouded by Entergy's attempts to spin IP 2, and IP3 off into a new company.

The Nuclear Regulatory Commission itself at the annual assessment meeting has admitted the plants have entirely different histories, different design control and configuration management programs. The NRC held and will continue to hold separate reviews to discuss each reactor licensees' separate issues prior to opening the meetings for public questions. These facts were verified by Richard Barkley, Sam Collins, and Bo Phem.

Indian Point 2 and Indian Point 3 had and continue to have distinctly different Current Licensing Bases (CLB), and have evolved away from each other via a multitude of different design modifications.

The Contention that the Applicant has wrongfully commingled and co-joined the applications for IP2 LLC and IP3 LLC is buffered and strengthened by the fact that the NRC itself has assigned separate onsite plant inspection teams to each individualized reactor.

Indian Point 2 has been repeatedly in "white status" for the past 10 years, and Indian Point Unit 3 was on the NRC's watch list during the 90s, while the plants have been subjected for over 30 years to different corrective action programs, and different design control programs; and each has its own set of active licensing commitments with respect to their Current Operating License and plant technical specifications. As example, the spent fuel pools for IP2 and IP3 rely upon completely different Aging Management Plans, as is noted in Appendix B to the LRA.

B.1.3 BORAFLEX MONITORING

Program Description

The Boraflex Monitoring Program is an existing program that assures degradation of the Boraflex panels in the spent fuel racks does not compromise the criticality analysis in support of the design of the spent fuel storage racks. The program relies on (1) areal density testing, (2) use of a predictive computer code, and (3) determination of boron loss through correlation of silica levels in spent fuel water samples to assure that the required 5% subcriticality margin is maintained. Corrective actions are initiated if the test results find that the 5% subcriticality margin cannot be maintained because of current or projected Boraflex degradation.

This program applies to IP2 only since Boraflex is not used for criticality control of IP3 spent fuel.

Evaluation

1. Scope of Program

The Boral Surveillance Program includes all boral in the IP3 spent fuel pool. The IP2 spent fuel pool design does not rely on Boral for criticality control.

Contention 44-The NRC violates its own regulations by accepting a single License Renewal Application made by the following parties: Entergy Nuclear Indian Point 2, LLC ("IP2 LLC") Entergy Nuclear Indian Point 3, LLC (" IP3 LLC"), and Entergy Nuclear Operations, LLC. (Entergy Nuclear Operations). NRC further violates its own regulations found in 10 CFR 51 in considering Entergy's recent request to change the holder of record for IP1, IP2 and IP3. Additionally, the NRC is wrongfully allowing Entergy to do one stop filing (IE, filing one set of papers to change ownership status of five SEPARATE licensed reactors) in a fleet like manner, even though each reactor is owned by separate LLC's.

Stakeholder asserts the ownership and legal liability associated with the superseding licensing is incomplete and inaccurate as described in Entergy's application for renewal by not including holding companies that differ for each plant (NRC can take Judicial Notice of its own documents, specifically Entergy's filing to the NRC dated July 30, 2007 with the corporation identification code of ENOC-07-0026, titled "Application For Order Approving Indirect Transfer Of Control Of Licenses", organizational figures), and that the NRC should not transfer the license from one LLC to another in the middle of a LRA review as announced by an entirely

different holding company in Entergy's letter dated July 30, 2007. Fuse further asserts, that said letter itself should be dismissed, as the actual license holder that the NRC has jurisdiction over has not made a request, but instead a parent holding company with NO DIRECT TIES to the reactors in question has filed a request for action, even though they are not a direct party to the license.

Based upon the documents submitted in the July 30, 2007 letter, the current license does not correctly describe the owners of the Unit 3 facility, the operators of the Unit 3 facility are not unambiguous and this causes undue confusion of ownership regarding matters relevant to future decisions, especially concerning extended operations regarding the new superseding license being proposed. Such applications seeking orders should be filed individually by each licensee of record, and should not be filed, nor considered during a pending License Renewal process, and during a NEPA required SEIS.

Even though named on the current operating license, Entergy Nuclear Operation Inc. cannot be a party to the LRA, and should not be named on the current operating license, because it lacks the necessary direct relationship between the Licensees and Entergy Nuclear Operations. Nor is Entergy Nuclear Operations, Inc. involved in daily operations or record keeping, in direct violation of *10CFR50*.

Entergy Nuclear Operations is not currently the operator or direct owner of the license, and thus does not have direct control over the license, nor does it maintain records or additional records as required by *10CFR54.35* and *10CFR54.37*.

What should be of particular concern is that each intervening LLC acts as a barrier to extending liability to the parent corporation that contains most of the assets. Several separate litigations, or a very large and complex single litigation would be required to pierce all the corporate veils back to the parent corporation with the bulk of the assets. (*Synapse Energy Economics, Inc Financial Insecurity* pg 12), which is already a part of the record in this License Renewal Process for IP2 LLC and IP3 LLC.

The current licensee is nothing more than a empty shell, the only tangible asset being the reactor itself, which would become worthless in a significant radiological event, or successful terrorist attack on the facility.

Just two days prior to formal application acceptance by the Staff it was announced in the Federal Registry, Entergy Nuclear Operations filed for a transfer of Indian Point 2 license DPR-26 and Indian Point 3 license DPR-64 to Entergy Nuclear Operations, an indirectly related corporation, which would result in substantial reorganization of Entergy's corporate structure and LLC holdings, affecting the fiscal responsibility and liabilities of Indian Point 1, Indian Point 2 and Indian Point 3.

From the referenced July 30th letter:

Indian Point Nuclear Generating Unit No. 1

Docket No. 50-003

Indian Point Nuclear Generating Unit No. 2

Docket No. 50-247

Indian Point Nuclear Generating Unit No. 3

Docket No. 50-286

This whole overly complicated corporate structure overlay on top of another corporate structure overlay, is akin to Abbot and Costello's who's on first, and who's on second, but the humor dissolves when the questionable motivation and the detrimental consequences to the health and safety of the public become apparent.

This overly complicated corporate structural overlay has severe consequences to reasonable assurances of health and safety of the public. It will become far more severe if the NRC allows Entergy to attempt a reshuffle of the cards during this significant federal action of considering the merits, or lack there of in granting a new superceding licensee to the applicant.

The motivation behind this requested license transfer is revealed when one reviews how the parent corporation of Entergy handled its fiscal liability with regards to Hurricane Katrina events by comparing the historical actions of the parent

company and understanding how Entergy ducked the fiscal liability associated from the Katrina events.

In the aftermath of Katrina, Entergy New Orleans, a FULLY OWNED subsidiary of the Entergy Corporation, filed for Chapter 11 bankruptcy, even though the parent corporation continued to have ample finances. This corporate hide and seek resulted in Entergy Corporation receiving massive government bailouts from taxpayers monies (almost $300 million), while concurrently, ratepayers in New Orleans experienced a substantial increase in energy costs.

> **Contention 44 B-The NRC has no statutory authority to require a licensee in bankruptcy to continue making safety-related or decommissioning expenditures or to pay retrospective Price-Anderson Act premiums. Therefore, any transfer of the licenses in the middle of an LRA proceeding brings into scope Entergy's entire corporate structure and complex financial qualification review to continue operating the licenses during the license renewal period of 20 years.** ***We claim this very issue Contention 44 B.***

Moreover, the timing of this transfer application creates the opportunity for the NRC staff to do less than an adequate review, as was found by the GAO in previous reviews performed, and diverts the NRC staff's full attention from the technical requirements and assurances of public health and safety during the LRA reviews, to

devote substantial resources and attention for a complex financial qualification review.

The General Accounting Office has found that the NRC has done an inadequate analysis regarding the fiscal responsibility during license transfers in the past, affecting commitments or lack thereof, including but not limited to such items as the decommissioning funds (specifically relevant to Unit 1 and Unit 2 license renewal). The proposed transfer of the license materially affects the fiscal resources and clear liability for each of the three Indian Point Units. Therefore, any change of ownership, even indirectly should A) not be considered during a pending License Renewal Application, or B) said license renewal application should be returned to licensee for submission at a later time and date after issues of ownership have been resolved.

If the NRC reviews and approves this proposed license transfer in the middle of the LRA review, it will add undue confusion and complication resulting in harm to the Stakeholder's rights, and in turn causing potential harm to the public's health and safety. Further, it is unreasonably burdensome on the part of stakeholders to respond to two major actions such as these simultaneously, and it is alleged here, that Entergy has deliberately timed the filing of their July 30th letter to sneak through ownership changes during license renewal, so there will be far less public scrutiny of said process.

Contention 45-The Decommissioning Trust Fund is woefully inadequate and Entergy's plan to mix funding across Unit 2, 1 and 3 violates commitments not acknowledged in the application and *10 CFR rule 54.3*. (We Specifically Address This to IP3, though wording is similar to other contentions.

Stakeholders assert that the Applicant's decommissioning trust fund balances are inadequate and insufficient to properly decommission the site, as required by 10CFR 54.3 to restore the site to a status of unrestricted use. Therefore, due to the inadequacy of the decommissioning trust funds, the NRC cannot approve a new superseding license for an additional 20 years without first making sure that these funding shortfalls are addressed and corrected by their licensees.

Indian Point 3 has massively insufficient decommissioning trust fund balances, as required by *10 CFR 50.75*, to restore the Indian Point site, including the removal of underground radioactive contamination in the bedrock under the plant, which would require extremely complex and expensive safety measures be put in place to protect the off site migration of radiological contaminants into the Hudson River during the remediation and decommissioning process.

Per *10 CFR PART 50 Sec. 50.75*: Reporting and recordkeeping for the decommissioning plan as relates to Indian Point's decommissioning funds are inadequate to clean up the bedrock site from the ongoing underground leaks. The costs for complete decommissioning and cleanup of the site must be adjusted to

reflect significant changes in the contamination streams including the large underground radioactive leaks. However the Applicant has not adequately evaluated calculated or considered the actual decommissioning funds required to decontaminate the site in light of ongoing massive underground radioactive effluent and leaks. The latest plume maps which the Licensee and NRC have refused to release to the public show that the underground contaminant plumes are quite extensive, and have migrated to a point where they are threatening to leave the site boundaries during the period of requested license extension.

The Indian Point 3 decommissioning fund has not been adequately adjusted to take into consideration the enormous, underground radioactive contamination accidentally discovered in 2005, and ongoing in 2007. The current decommissioning plan for aging management of the plant is inadequate to clean up the bedrock site and is not addressed in the Applicant's LRA. The costs for complete and correct and adequate decommissioning and cleanup of the site must be adjusted to reflect the large underground radioactive leaks, as required by:

> ***Section PART 50 Sec. 50.75 (2) (e)(1)(v); any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and any material changes to trust agreements.... or where conditions have changed such as:***

(iii) The current situation with regard to disposal of high-level and low-level radioactive waste;

(iv) Residual radioactivity criteria;

(v) Other site-specific factors which could affect decommissioning planning and cost;

(1) Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site.

These records may be limited to instances when significant contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations, or certification is used.

It has been acknowledged by the NRC that numerous systems, structures and components can experience undetected radioactive leaks over a prolonged period of time and that "relatively large volumes of contamination above the decommissioning release limits" can result in "notable increases in remediation time and costs" in the sums of hundreds of millions of present value dollars. NRC's Liquid Radiation Release Lessons Learned Task Force Final Report, ML062650312 2006-09-013.4.3 Further, both the nuclear industry and the NRC concede that the scope and volume of leaks is expected to increase during any period of extended operation, up to and including a 20 year new superceding license that is granted

through the License Renewal Application process. The past and present leaks at Indian Point 3 provide indicia of continued and future leaks, which will increase in both volume and scope.

> **In 2006 Don Mayer, Director of Special Projects for Entergy said that "The underground area of the Indian Point site has contaminated water that is 50 to 60 feet deep, ...and there is also another area, or underground plume, that is about 30 feet wide by 350 feet long."**

In the Matter of Power Authority Of The State Of New York And Entergy Nuclear Fitzpatrick LLC, Entergy Nuclear Indian Point 3 LLC, And Entergy Nuclear Operations, Inc. (*James A. FitzPatrick Nuclear Power Plant and Indian Point Nuclear Generating Unit No. 3*) Docket Nos. *50-333-LT* and *50-286-LT* regarding the license transfer to Entergy, the Nuclear Regulatory Commission held that decommissioning shortfall "did not fall within the scope of this license transfer proceeding, as Entergy Indian Point was not seeking in its application to renew or extend the Indian Point 3 operating license, nor did its pending application assume such a request.

The Commission further stated, "that regarding decommissioning Stakeholders have the right to seek intervenor status in any application for license renewal or license extension that Entergy Indian Point may file." Therefore, based on the Commission's own decision in a previous case, the issue of whether there are

adequate decommissioning funds is within scope of the licensing renewal proceedings.

The method of cost analysis used in determining the adequacy of decommissioning funds must be clearly stated in the LRA. The Applicant's LRA fails to outline an adequate decommissioning and clean up plan that spells out in specificity how the large amounts of underground radioactive waste, for which the source has not yet been identified, and therefore the extent of the contamination remains unknown will be dealt with, and fully decommissioned to a point where land can be released in a period of 60 years for unrestricted use.

The Applicant initiated actions to pump out the Unit 1 Containment Spray Sump through a filter/demineralizer system, designed to remove Strontium 90, and investigate the source and means of the Strontium 90 groundwater contamination. This raises the question: is Entergy in violation of the terms of their SAFESTOR for Indian Point 1? Is Entergy trying to avoid the public scrutiny and input that is guaranteed in the Decommissioning process by addressing IP 1 Leaks through an alternative, but illegal regulatory process?

When the Applicant first started to remove the underground contaminants caused by numerous undefined leaks by pumping the radioactive contamination out of the ground, it caused more radioactive material to be released. Therefore, the NRC ordered the Applicant to stop removing the radioactive effluent from ground, and to

monitor it while the issue was further investigated. The NRC has ordered that the contaminated materials remain under the plant in the bedrock, until some date uncertain when Applicant figures out a method to find, stop and remediate the Radiation Leaks. Until that time radioactivity will continue to leach into the groundwater and the Hudson River.

At a recent annual assessment NRC meeting in Croton, NY, NRC officials stated that since they can't dig the radioactive contamination out, and can't blast it out, they will have to chisel out the tritium, cesium and strontium from the bedrock. If, as Sam Collins claimed, such remediation work is required to bring the reactor site into compliance with NRC guidelines and PART 50.7 it will require additional protective actions and contaminant reduction methods during the remediation work to keep radioactive contaminants from migrating off site, and exposing both humans, workers and the public, as well as the environment, to unnecessary additional, potentially life threatening exposure risks and pathways.

In the *NRC's "Liquid Radiation Release Lessons Learned Task Force Final Report, ML062650312 2006-09-013.4.3"*, it was concluded and recommended that, in some cases, such as Indian Point, the relatively large volumes of contamination above the decommissioning release limits resulted in notable increases in remediation time and costs. The NRC staff estimates the increased cost to be in the tens of millions of dollars, although specific actual cost data is not available to the staff.

The decommissioning reports for Indian Point 3 from 2002 to 2006 indicate that the Urban Inflation rate has been 2.9% per year, yet the adjustment of the decommissioning funds for IP 3 has only been 1% per year. However, the decommissioning reports falsely state the escalation rate is 3.0%. The decommissioning funds for Indian Point have a provable substantial shortfall, as they are not even keeping up with the rate of inflation, as evidenced in the March 29, 2005 Report *BVY-05-033/NL-05-039/JNP-05-005/Entergy Nuclear Operations Ltr.2.05.023* and the *March 29, 2007 Report Entergy Nuclear Operations C-07-00007.*

In addition, the storage of an additional 20 years of waste, either in the spent fuel pools or in dry cask storage, increases the risk to human health and safety far beyond the original Design Basis for this site. It is further noted, that the Yucca Mountain site is all but dead, and even if it is not dead, said site could not be opened for storage of Indian Point in a timely fashion when taking into consideration that the cask storage system to be employed for Indian Point is intended only as a short term (20 year) stop gap measure. The citizens should not be placed into a situation where the NRC uses their tricks and chicanery to simply claim at some future point and time that said storage casks can go through a reanalysis an be granted an extended life span of functional use. The LRA and its NEPA process are supposed to address ALL ISSUES necessary to assure that the Indian Point facility can continue to operate safely for a period of 20 additional years.

Contention 45 B-Since, Cask storage is slated to begin in 2008, and the renewed license for IP2 and IP3 if granted will expire in 2033 and 2035 respectively, it is imperative that the licensee and the NRC deal with the fact that Entergy in their LRA have not provided a full and complete plan to deal with the waste streams generated and stored at the facility, and the issue of dry cask storage units reaching their end lives has to be dealt with before a new superceding license can be granted. Stakeholders herein claim this as a new contention.

Additionally, the NRC has been discussing plans to store both LLRW and HLRW on site at reactor facilities for a period in excess of 100 years, while failing to provide the public with the protection standards that would be in place if a long term LLRW or HLRW storage facility were cited at the facility. This lack of protections associated with forced onsite storage of radioactive waste streams must be addressed in the license renewal process. Spent fuel pools are not designed to meet the basic minimum requirements for structural stability and integrity, as is outlined in the citing criteria for new reactors in place at the time the NRC granted the original license, and it thus becomes imperative that the structural degradation indicated by the leaks of all Spent Fuel Pools, 1, 2 and 3 be addressed and remediated before the license renewal application is allowed to move forward. Further, if a new superceding license is granted, the host community should have irrevocable guarantees that no spent fuel wastes will remain on the Indian Point site 30 years after the reactors have been shut down, and decommissioning begun.

Contention 45 C-As a host site, it is imperative that we receive the necessary assurances that Indian Point will not become a permanent waste disposal site for Indian Point's waste streams. Guarantees/commitments written into the new superceding license, coupled with yearly fines of say $5 million per fuel rod paid to the local community should the 30 year time period be violated, would guarantee a far greater chance of the NRC, DOE and Entergy abiding by the Federal Laws that require said waste streams to be removed and safely stored OFF SITE. Stakeholders again claim this as a additional contention. It is imperative that final disposition of these waste streams be resolved before a new superceding license is granted to Entergy for Indian Point, since many of the spent fuel waste streams should have already been removed from the site as a term of the original license to operate.

Moreover, the dry cask storage facility at Indian Point presents an additional hazard and risk to New York (and other Northeastern states) that will very possibly continue for centuries. The costs of assuming these burdens cannot be placed on the taxpayers, but should be assumed by the Applicant which profits from the operation. These additional costs must be added to the decommissioning fund.

Even the Nuclear Energy Institute (NEI) recommends that although NRC regulations do not require the inclusion of used-fuel storage costs in decommissioning funds, companies should include such costs in their estimates, because no federal repository or interim storage facility is available, and is not likely

to become available. The Host Community, and its stakeholders should have the legal right to have certain financial protections included in any new superceding license for the operation of Indian Point, including language that makes Entergy legally obligated to include long term used fuel storage costs in the decommissioning fund.

The amount of decommissioning funds required to properly meet the requirements of the *NRC 10CFR50.75* are a material issue of fact and law, and a full hearing on such costs and decommissioning funds must occur prior to the NRC approving a new superseding license for 20 years for IP2. The Stakeholders have raised a material matter of fact or law, thus meeting the burden for further review.

Stakeholders have met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process and hearings lay out some basic criteria that a stakeholder must meet to have a contention accepted for further review. *Section 2.309(f)(v)* requires :

> ***....a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue.***

Additionally, it is pointed out that the rules and regulations dealing with hearings and contentions accepted therein goes further to define specifically the minimum burden of proof necessary to have a contention accepted for further review and scrutiny:

> ***An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality as that is necessary to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).***

The contention more than meets the minimal standards necessary for acceptance. The petitioner in this case has made "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate.

The Stakeholders assert that the NRC must deny Indian Point 3's LRA because it does not clearly define and allocate decommissioning funds for an aging management program with regard to the adequacy of decommissioning funds or methodology of decommissioning, in light of the underground radioactive leaks, the addition of dry cask storage on site, and the addition of low-level radioactive waste storage on site, due to the fact that Barnwell is closing in 2008, which by inference affects the LLC's budget for renewal and superseding license within section "*50.13 "completeness and accuracy of the information*", as it affects the continued aging and safe operations of Indian Point 3.

<u>Contention 46- Inability to Access Proprietary Documents Impedes Adequate Review of Entergy Application for License Renewal of IP2 LLC and IP3 LLC.</u>

Stakeholders assert that the Applicant's claims of proprietary status to nuclear industry documents and pertinent sections of the LRA, as well as relevant leak maps and leak reports thwarts the Stakeholders' ability to prepare and file contentions which must be supported by documentary evidence.

Stakeholders that may be adversely affected by a License Renewal Application (LRA) have a right to file a Petition to Intervene and a Formal Request for Hearing. *§ 2.309 Hearing requests*. There are specific 10 CFR Rules and Regulations that define and spell out the duties and responsibilities of a citizen wishing to use the

right to formally intervene in the process, and primary among these rules and regulations, is the filing of a contention. These contentions to be accepted must meet a minimal standard of proof in raising a contention of law or fact which is supported by a methodical presentation of documents or expert witness testimony in support of the contention. In short, unlike an allegation, contentions must have some supportive evidence that there exists a true difference of opinion of fact or law that falls within the scope of the LRA. The regulation spells out that this level of proof can and must come in the way of articulate statements of the facts, expert witness testimony and/or through the presentation of documents.

From the date of acceptance of a LRA for review as is witnessed by notice in the Federal Registry, interested Stakeholders usually have exactly 60 days to submit their contentions (on October 2, 2007) with proper evidence, and formally request a hearing and status as an intervener. Stakeholders petitioned the NRC for extension of time to file contentions, and on September 18, 2007, the NRC granted a 60 day extension, until November 30, 2007.

This window of opportunity to submit contentions, and Formal Request for Hearing is woefully inadequate, especially when compared to the two year span of time that Licensees have to prepare their application for submission to the NRC. Couple this with all the road blocks and delays created by claims of Proprietary entitlement on the part of Entergy, mix with the Federal Governments delays in making documents available to the public through the FOIA process due to mandatory National

Security reviews, and stakeholders rights to due process are being trampled upon in the name of expediency and NRC's self imposed time schedules. (IE, they out the door state they want to complete a LRA process in 22-30 month time frame.)

Despite the additional 60 days granted for stakeholder filings that was grudgingly granted, the NRC's liberal granting of proprietary status to nuclear industry documents and portions therein, including massive redactions [on the claim of proprietary information] in Application's LRA's for IP2 LLC and IP3 LLC and underlying supporting documents, make it impossible for Stakeholders to adequately review the LRA documents and form/support their contentions. The time necessary to file FOIA's, and to contest the Applicant's claim to proprietary entitlement in keeping documents from public view, or having portions of the LRA and underlying documents redacted takes longer than the time allotted for Stakeholders to prepare and support their contentions in a fashion adequate to have them accepted for further comprehensive review.

Documents hidden under the guise of proprietary information from Stakeholders are denying Stakeholders their rights to redress under the laws of the United States of America, and under the guidelines of the NRC 10CFR Code of Regulations meant to protect human health and safety.

The time clock for submission of a Formal Request for Hearing, and Petition to Intervene should not begin until stakeholders have access to a full and complete set

of un-redacted versions of the LRA and its underlying documents, including but not limited to the FSAR's (all versions), USFAR's (all versions), the most current and up to date company and/or NRC version of the Current Licensing Basis (CLB) which is described in *10 CRF 54.3* as:

> ***Current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.***

In addition Stakeholders must be given access to the plume maps and leak reports prepared by the Applicant and exhibited at public meetings, yet claimed as proprietary by the Applicant. Further, all attempts to have a un-redacted copy of

Chapter 14 of LRA (Safety Analysis) have so far been denied through various tricks and chicanery on the part of both licensee and the NRC.

The NRC is required by law to weigh the value of public's right to know, the public health and safety against commercial interests, especially with regard to environmental information. Until such relevant documents are made available for Stakeholder review, it is inequitable for the NRC to close the window in which Intervenors may submit contentions and request a hearing with regard to the LRA.

It should be noted for the record, that unlike the NRC, the DOE has been both cooperative and sharing in dealings with them on Entergy's LRA, so far having provided us with over 4,000 pages of documents. Further, they honestly and openly admitted that security/proprietary reviews for some of the documents we wanted to see would take months to complete. DOE has just recently committed to having the remaining FOIA'ed documents in route to us the week of November 4, 2007.

NRC on the other hand has been extremely uncooperative in providing citizens access to documents, throwing road blocks and onerous fees in our way at every step of the process, determined to keep us from seeing anything that might degrade their intention of rubber stamping Entergy's License Renewal Application, even though citizens have been properly using the FOIA process to gain access to them. Documents that we as stakeholders have so far been unsuccessful in gaining access to include but are not limited to the following:

1. **Un-redacted Copy of Safety Analysis contained in LRA.**
2. **All historical versions of FSAR, UFSAR, DSAR-Sherwood Martinelli was told by the PDR staff that internal review of these documents could take months to complete before they could be released.**
3. **Plume and contaminant maps for the facility.**
4. **Schematics and drawings which shows where Entergy randomly drew lines to decide where in scope verse out of scope areas of plant internals begin and end.**
5. **List of all exemptions that Entergy plans to carry over into new superceding license. It is further noted here, that both the NRC and licensee deliberately try to hid these exemptions under the guise and use of different words such as deviation.**

Without exception, these and other documents are being kept from the public under wrongful proprietary or other means.

As Stakeholders and property owners living within 3, 10 or 50 miles of the Indian Point facility owned by two unique and separately owned Entergy Limited Liability Corporations, it is imperative in measuring any suspected and/or adverse risks/effects associated with the proposed actions sought in Entergy's LRA for IP2 LLC and IP3 LLC to have a clear understanding of what the License Renewal Application seeks, and be capable of measuring the reliability and adequacy of the

aging management plans contained therein. Unfortunately, many of the documents that Entergy claims their aging management plans are based upon are not READILY available to members of the stakeholder community, hidden behind various corporate veils belonging to Entergy, EPRI, NEI and other entities. Without full and open access to these Proprietary documents, it is impossible for stakeholders to fully understand and comprehend the risk we are being asked to accept in the proposed action of issuing IP2 LLC and IP3 LLC new superceding licenses to operate for and additional 20 year period of time. This simple fact, the publics need to know should trump all claims to proprietary protection of documents that make up, or contributed to the creation of, or support of Entergy's license renewal application. The three judge panel hearing this case should order that sll such documents, including all historical documents be given to the NRC, and then made available to members of the stakeholder community by posting them in one central file on the NRC ADAMS site. Stakeholders should then be given adequate time (six months) from the date documents are available to amend, alter or submit new contentions. FUSE USA as a part of this contention moves for just such and order from the panel in this LRA.

In measuring the potential risks and/or adverse effects associated with the proposed action (license renewal) Stakeholders have done due diligence in working their way through the myriad complexities in the Applicant's LRA for IP3 LLC. Citizen volunteers, FUSE USA volunteer staff, other organizations and citizen groups (such as Riverkeeper) attorneys and as well as industry experts hired by various

stakeholders of interest have dedicated thousands of man/woman hours to fully understanding the repercussions of a 20 year license renewal on the community surrounding Entergy's Indian Point. Despite best efforts on the part of these Stakeholders, the Applicant's claims of entitlement to Proprietary Information, and the NRC's granting of the Applicant's request for same without following their own protocols as written into the 10 CFR Rules and Regulations, has created a situation where Stakeholders are barred from properly forming and supporting certain contentions Stakeholders chose to raise during the limited window for submission of Intervener Petitions and Formal Requests for Hearing.

One example of the problems created by the Applicant's Claim of the information being proprietary in nature can be found in a cursory review of the most recent UFSAR's for IP2 LLC and IP3 LLC. The Applicant in its LRA refers to the safety analysis in these documents in justifying many aspects of the aging management program, or lack thereof, that will be relied upon in the 20 year period of operation should their LRA be granted. The redacted and publicly available versions of the USFAR's for IP2 and IP3 are incomplete. Further, the LRA's Section/Chapter 14, which is the Safety Analysis, has been significantly redacted. If Stakeholders cannot review the Applicant's safety analysis which is a part of the LRA, they cannot formulate opinions based upon the facts or on the adequacy of the Applicant's proposed Aging Management Plan as outlined in the LRA.

Further examples revolve around industry documents that the Applicant relies upon in the formulation of its Aging Management Plans (and defense of same) that are not available for review under the same proprietary claims. Stakeholders know of issues regarding Boraflex degradation/failure in the spent fuel pools which brings into question the reliability and workability of the Applicant's aging management plan for the spent fuel pools at IP2 and IP3. There has been a similar Boral investigation done as well. An industry investigation into these issues and the EPRI reports on the findings is not publicly available, and is classified as proprietary in nature, even though taxpayer funds (provided by DOE) were used in the creation of said work product. A challenge to this proprietary claim could take months, even years to resolve.

One FOIA filed with the DOE has been fulfilled in part, with additional document delivery promised by the DOE, if possible, by the end of the week of November 4, 2007 which is 21 days before the November 30, 2007 NRC deadline for the filing of contentions. The reason for this delay is that the documents had to first be reviewed for proprietary information by EPRI, and if necessary partially redacted before being made available. NRC can take judicial notice of this fact, as a copy of the letter from the DOE to Sherwood Martinelli, Director of FUSE USA, was attached to a Formal Request asking that NRC grant an extension of time to file a Formal Request for a Hearing and Petition to Intervene (with contentions). The request for an extension of time to file asked for 60 days from the date the DOE fulfils its commitments under the Federal FOIA guidelines. The NRC did grant an extension

of 60 days, but from the original deadline, not from the day these documents were received by FUSE USA and Sherwood Martinelli. Had the request been granted as written, FUSE USA would have adequate time to review the expected 4,000 pages of documents, and incorporate any new contentions raised by them into our filing. We therefore as a part of this contention move the hearing board for this case to grant an extension of time to file contentions in this case of 60 days from the time the DOE documents are received, as was originally requested by the stakeholders.

It is a reasonable expectation and contention that the citizens and Stakeholders have fair and adequate access to records and documents that are being used in presenting and justifying the important issues found in the Applicant's LRA for IP2 LLC and IP3 LLC. Until such time as Stakeholders are given adequate access to all relevant documents necessary to perform a full and complete review of the LRA, Stakeholders are being unfairly barred from being able to adequately formulate, create and support viable contentions on issues that directly affect public health and safety.

This Contention is Within Scope in the License Renewal Process for Entergy's LRA for IP2 LLC and IP3 LLC

Safety analysis and aging management go to the core of any LRA submitted to the NRC. The ability of Stakeholders to investigate and understand the reliability and quality of the Applicant's Safety analysis assumptions/claims, and evaluate the

reliability of the Applicant's proposed aging management plans for the 20 year period of additional operation are crucial for adequate public involvement in the License Renewal Application Process, and should not be mitigated, marginalized or minimized in the name of expediting the process, or in the name of the NRC calendar.

The current licenses for IP2 and IP3 do not expire until 2013 and 2015 respectively, which means granting an extension of time to file formal requests for a hearing and petitions to intervene (with contentions) until all relevant documents are made publicly available, would not negatively impact either the NRC or their licensee in any meaningful fashion. Conversely, denying a reasonable request for an extension of time to file that would allow the Stakeholders an adequate chance to resolve issues surrounding industry and the Applicant's claims to proprietary privilege will cause irreversible harm to the Stakeholders and the Stakeholders' community.

A community and its citizens' right to be involved in the licensing process is not only in scope, but codified into the 10 CFR rules and regulations that govern the re-licensing process. Further, Stakeholder rights to redress are protected and preserved under the First Amendment of the Bill of Rights, and cannot be marginalized in the name of the Applicant or for the convenience of the NRC.

The Constitution and the Bill of Rights ascertain fairness of any rules or regulations promulgated under the authority granted an agency such as the NRC, by the

Congress of the United States of America. Specifically, we must look at the First Amendment which states:

> ***Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.***

NRC's authority to promulgate and enforce rules and regulations stems by proxy from a direct act of the Congress of the United States of America. Since the Constitution and Bill of Rights preclude Congress from making laws which abridge the people's right to peaceably petition the government for redress of grievances, the NRC that was created by Congress cannot legally exist, create, draft or enforce any rule or regulation that de facto abridges the people's right to a adequate redress of grievances. NRC steadfast refusal to abide by their own rules and regulations which require that the public's right to know supercedes a companies desire to protect an industry edge by having certain documents kept secret through a claim of proprietary in this case is abridging our rights to redress, as the public's right to fully understand the risks we are being asked to face far out weighs any commercial advantage that Entergy seeks to protect in claiming of a Proprietary Privilege.

The very nature of the NRC license renewal rules and regulations as codified in 10 CFR 51 and 54, specifically as they relate to what is and is not within scope, what the NRC allows the Applicant to claim as proprietary, and the limited time allotted

for citizens to adequately address and submit their contentions de facto abridges the people's right to petition the government for a redress of grievances. The wheels of both justice and government move at the speed of a mountains at times, and this reality makes it impossible for citizens to gain access to needed documents in the time frames written into the 10 CFR 54 Rules and Regulations governing the License Renewal Process. Again, the point is made, that the licensee is given two or more years to prepare their applications for submission, yet citizens in danger's path are give just a brief window of opportunity to prepare and submit their contentions.

There are numerous laws drafted by Congress which show their intent to preserve the individual rights of citizens at all costs against unfair, unjust, illegal ordinances and regulations.

See 42 U.S.C. § 1983 it is, in relevant part, as follows:

> ***Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State . . . subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress.***

In invoking *§ 1979 as revised in 42 U.S.C. § 1983* Stakeholders contend that their protection of *"rights, privileges, or immunities secured by the Constitution"* encompasses what *"due process of law"* and *"the equal protection of the laws"* of the First Amendment guarantee against egregious actions being taken Entergy and by the NRC. The withholding by the Applicant of "proprietary documents", such as the leak report and leak plume maps, during the limited time in which the public is permitted to file Formal Request for Hearing, and Petition to Intervene with contentions, deprives and denies Stakeholders our Constitutional rights, and is unduly prejudiced in favor of the Applicant. It is a blatant attempt by Entergy, NEI and the NRC to deprive Stakeholders of, or marginalize and eliminate the Stakeholders rights and privileges secured by the Constitution.

The NRC, in their method of conducting a License Renewal Process, have deliberately designed the process, with the assistance of the Nuclear Energy Institute (NEI), the powerful nuclear industry lobbying group, DOE and EPRI to eliminate any meaningful citizen involvement, have intended all along to thwart all chance of real redress, as is guaranteed by the Constitution and Bill of Rights in the name of a Nuclear Renaissance.

Moreover, the Applicant's hiding of crucial documents behind the veil of Proprietary Privilege, the NRC granting of that privilege without question so that Stakeholders are forced to deal with the legal roadblocks presented by the

Applicant's claim of Proprietary Privilege are the very acts that *42 U.S.C. § 1983* was meant to protect against.

The Applicant in the view of FUSE USA has deliberately and knowingly caused another person (NRC Staff) to defacto hide and/or withhold documents from an official proceeding (License Renewal Application Process). The Applicant's wrongful and abusive claim to, and use of Proprietary Privilege is targeted at thwarting adequate participation by Stakeholders in the official proceeding of the License Renewal Application process, and official proceeding of the Nuclear Regulatory Commission, an agency of the government of the United States of America. NRC's blind granting of said proprietary privilege without question of its licensee's entitlement to same makes both parties guilty of an attempt to withhold and/or alter documents meant for use in an official proceeding, and prejudices the LRA proceedings in favor of the Applicant:

***18 U. S. C. §§1512(b)(2)(A) and (B)* makes it a serious crime to "knowingly or corruptly persuade another person with intent to cause" that person to "withhold" documents from, or "alter" documents for use in, an "official proceeding."**

Further, the NRC is required by their own rules and regulations as defined in *10 CFR 2.309* to weigh a licensee's claim of Proprietary Privilege against the publics need to know. It is imperative in making a decision to grant a request for Proprietary Privilege to weigh the licensee's desire for financial advantage against

the right of the public to be fully apprised of the bases for, and the potential effects, risks and health concerns associated with the proposed action .

§ 2.390 Public inspections, exemptions, requests for withholding

See subsection B (5) (6)

(5) If the Commission determines, under paragraph (b)(4) of this section, that the record or document contains trade secrets or privileged or confidential commercial or financial information, the Commission will then determine whether the right of the public to be fully apprised as to the bases for and effects of the proposed action outweighs the demonstrated concern for protection of a competitive position, and whether the information should be withheld from public disclosure under this paragraph. If the record or document for which withholding is sought is deemed by the Commission to be irrelevant or unnecessary to the performance of its functions, it will be returned to the applicant.

(6)Withholding from public inspection does not affect the right, if any, of persons properly and directly concerned to inspect the document. Either before a decision of the Commission on the matter of whether the information should be made publicly available or after a decision has been made that the information should be withheld from public disclosure, the

Commission may require information claimed to be a trade secret or privileged or confidential commercial or financial information to be subject to inspection under a protective agreement by contractor personnel or government officials other than NRC officials, by the presiding officer in a proceeding, and under protective order by the parties to a proceeding. In camera sessions of hearings may be held when the information sought to be withheld is produced or offered in evidence. If the Commission subsequently determines that the information should be disclosed, the information and the transcript of such in camera session will be made publicly available.

From the onslaught of the Applicant's LRA process for IP3 LLC, the NRC has failed in their fiduciary duties and responsibilities to members of the public when it comes to the Applicant's claims of Proprietary Privilege. Instead of making a decision based on the public's need to know weighed against Entergy's desire to hold a competitive edge in the nuclear industry, the NRC staff, as a matter of practice, simply grant all requests by the Applicant for Proprietary Privilege. NRC's in-house protocols, in this regard, fly in the face of its own regulations, and have placed members of the public at a grave disadvantage by interfering with the Stakeholders' rights to redress in this case, and by interfering with Stakeholders' ability to file properly supported contentions. Further, the NRC is failing to enforce the rules and regulations that would require their licensee to put into the mix a non-proprietary version of the document that has enough detail to make the matters discussed therein understood.

The Stakeholders of the host community are being told by both Applicant and NRC to simply trust them. Past review of Indian Point, and the regulatory problems associated with the site, show there is reason not to trust either the licensees or the NRC. As President Ronald Reagan said, "trust but verify." Stakeholders cannot verify, cannot ascertain the accuracy of the Applicant's Safety Analysis, nor can Stakeholders accept the Applicant's proposed aging management analysis without a full review of the application and its underlying documents. Further, and germane to this contention, Stakeholders cannot adequately and timely prepare properly prepared and researched contentions without unfettered access to the full record in this case.

It is clear, that in the case of the Applicant's LRA for two aging reactors with known Flow Accelerated Corrosion (FAC) issues, known fatigue issues, known cross-cutting issues, and a host of other safety and equipment failures that the public's right and need to know should outweigh Entergy's need for secrecy, should outweigh the NRC's desire to keep to a tight time schedule in the relicensing process.

Intervener has met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal

process and hearings lay out some basic criteria that a stakeholder must meet to have a contention accepted for further review.

> **Section 2.309(f)(v) requires a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue.**

The contention as written clearly presents a concise statement of the alleged facts and matters of law. Without first resolving the matters surrounding production of documents, without first reaching agreement on what documents are or are not entitled to Proprietary Privilege, it is impossible for interveners to adequately review Entergy's LRA in a meaningful fashion and submit contentions in a timely fashion.

The right to add additional supporting documents, and name industry expert witnesses and the scope of their testimony is fully reserved herein. Additionally, it is pointed out that the rules and regulations dealing with hearings and contentions accepted therein goes further to define specifically the minimum burden of proof necessary to have a contention accepted for further review and scrutiny:

An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality as that is necessary to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).

It is clear here, that this contention more than meets the minimal standards necessary for acceptance of this contention. The petitioner in this case has made "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate.

The adequacy of a 60 or even a 120 day time period from the date of acceptance of Entergy's LRA as witnessed by notice of same in the Federal Registry is by fact subjective, and up to interpretation. The effect that the Applicant's claim of Proprietary Privilege has on the Stakeholder community's ability to disseminate and understand the LRA and submit properly supported contentions in a timely

fashion is also a subjective issue of fact that should be decided by an impartial board or in a court of law. The Applicant's entitlement to its claim of Proprietary Privilege is, or should be subjective in scope. The constraints and limitations the NRC time constraints have placed on our community's right to redress and limited by the Applicant's claim to relevant documents as "proprietary" is a matter of law and fact in dispute, and should be resolved by a board or in a court of law.

Contention 47-Regulatory Guidance contained in 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope where members of the public have specific and direct substantiated concerns as relate to IP3 specifically.

Issue Statement: Stakeholders assert that 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act, require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope so that members of the public can raise specific and directly substantiated concerns, including but not limited to, an Independent Safety Assessment of IP3.

Regulatory Guidance contained in 10 CFR50.4 and Rule Implementing Standards under the American Rules and Procedures Act require Stakeholders to have reasonable opportunity to bring forth issues beyond the narrow scope where members of the public have specific and directly substantiated concerns. The

Stakeholders and elected officials (including, Senator Hillary Clinton, Governor Eliot Spitzer, Congresswoman Nita Lowey, Congressman John Hall, Congressman Eliot Engel, Congressman Maurice Hinchey, as well as Westchester, Rockland, Putnam and Dutchess Counties Executive and Legislators, and the municipalities of Village of Croton-on the Hudson, City of Beacon, Village of Ossining, Town of Cortlandt, Town of Ramapo, Town of Stony Point, and Town of Putnam Valley) call for an Independent Safety Assessment (ISA) of Indian Point systems, components and programs beyond the narrow recommendations of existing regulatory guidance. NRC's denial of this Independent Safety Assessment and the NRC's current mode of oversight increasingly reduces accountability and transparency. Stakeholders assert that these issues must be fully addressed and resolved prior to final license renewal. These areas of scope include 4.16 KV electrical distribution system, Control Ventilation, containment ventilation, and many more issues.

Contention 48-The LRA, in which Indian Point 3 LLC seeks a new superseding license to replace the existing license, is incomplete and should be dismissed. Instead of presenting required Time Limiting Aging Analysis and an Adequate Aging Management Plan, it seeks to agree to uncertain commitments with regard to the Aging Management of the plant at an uncertain date in the future, thereby causing the license agreement to be voidable by either party, but specifically the Licensee.

Stakeholder contends that the Applicant has submitted an LRA that contains uncertain and undefined commitments with regard to its Aging Management Plan, and therefore cannot be approved by the NRC because it is non-binding and is merely an intention to *"agree to agree"* to a plan that will be defined at some time in the future to be determined by mutual agreement and negotiation.

Instead of presenting specific plans required for Time Limiting Aging Analysis (TLAA) and adequate aging management plans to deal with known plant degradation issues, the proposed LRA merely provides commitments in the licensing review process to conduct certain Time Limiting Aging Analysis (TLAA), and implement as yet unknown Aging Management Plans at some future date and time.

The NRC's job is to identify shortcomings in the application and identify unaddressed issues in the application, not to negotiate with the Applicant in the review process for a list of future non descript commitments. A TLAA either was done to address a known aging issue, or it was not. An aging management plan either exists, or it does not. If it does not exist, if the analysis has not been done, the application is defacto incomplete. A future commitment to complete a TLAA amounts to nothing more than an agreement to agree to an analysis that has not yet been completed, and therefore an Aging Management plan cannot be developed and/or committed to, until an uncertain date in the future, thereby making the terms of the license vague, non-specific and unenforceable. Stating that you, as a

licensee in the mean time will keep an eye on the problem till all of the above is accomplished does not constitute and acceptable aging management program.

NRC's *10 CFR 54* in part requires a licensee to A) conduct a Time Limiting Aging Analysis (TLAA) for primary equipment and components subject to fatigue that are determined to be in scope, and B) requires as a part of the license renewal application that adequate Aging Management Plans be included in the application to deal with any parts, components, and systems that are subject to aging issues such as fatigue that are within scope.

Said regulations deliberately do not provide a mechanism for a plan to be submitted at some later date. Moreover, allowing such a future commitment not only bars public Stakeholder involvement in the process, thereby removing the review of said aging management plans from public scrutiny, it also violates the intent of the regulations, if not the regulation itself. The LRA is supposed to be complete, and address all issues involved in licensee being granted a new superseding license. Making a commitment to address the issues of an Aging Management Plan later on is not the intent of the law. Agree to agree is not law.

Further, the NRC is now realizing that many previous licensees who have moved through the re-licensing process are finding it impossible to meet the deadlines set for those future commitments. Even more disturbing is that the NRC is discussing the possibility of granting these licensees relief from those very commitments, in a

classic example of "out of sight out of mind." This process needs to be transparent, and the NRC needs to act as a regulator who abides by and enforces its rules and regulations, rather than acting as an arbiter and deal maker. The License Renewal Process is a serious and regimented process, not "Let's Make A Deal".

The NRC has, in past LRA proceedings allowed the Applicant to make a future commitment to A) perform an assessment of this known fatigue issue, and B) make a future commitment on the part of the Applicant to devise an acceptable aging management program for this known issue at some later date after the license renewal application has been approved.

The thousands of letters of relief from NRC rules, and licensee commitments show that this is not acceptable. As an example, it is pointed out that Indian Point 2 and Indian Point 3 made commitments when first licensed back in the early to mid 70's to design and build a closed cooling system. Some 30 plus years later, Entergy is still rationalizing the missed commitment that originally had a 1979 date of delivery for IP2.

The Stakeholders in the current LRA proceeding regarding IP3 contend this method is unacceptable and makes the license unenforceable. The 10 CFR rules are very specific and include the language without ambiguity that "licensees are to have an aging management plan in place for review". Agreeing to keep an eye on things while you invent/create an aging managing plan does not meet the regulations

as they now are written and exist. Agreement to agree is not legally enforceable under basic contract law.

In the current LRA proceeding and approval process the Applicant makes a commitment to the NRC to vaguely do something left basically undefined at some uncertain future date and time after a new superceding license has already been issued. This amounts to nothing more than an agreement to agree later on a process that remains, at best, vaguely defined. It further wrongfully eliminates the public's rightful involvement in the process, and amounts to force acceptance of unknown risk and dangers.

In order to be a valid and enforceable agreement, a document must contain certain essential legal provisions and must not leave either undecided or to be determined at some time in the future any aspect of such essential legal provisions. If these essential elements are not present, then the document is not a binding one and is often referred to by courts as an "agreement to agree" and is nothing more than a letter of intent, both of which are not enforceable as contracts or license. A license is essentially a contract between a regulator and a regulated business, in this case the NRC and IP3 LLC.

In Richie Co. LLP vs. Lyndon Insurance Group, Inc., a federal case out of the Eighth Circuit interpreting Minnesota law, the Court held that the April 16, 1999 "agreement" was not an agreement at all but a non-binding letter of intent and

agreement to agree. The Court stated: A letter creating an agreement to negotiate in good faith in the future is not enforceable where the parties have contemplated that the agreement is not the complete and final agreement governing the transaction at issue. Agreeing to future undefined and non specific commitments based on yet unknown studies and investigations are a version of this very issue, wherein the NRC and their Licensee are wanting to agree to agree later, and it is noted, that many of these supposed commitments approved in previous License Renewal Cases are not being able to be met, and there is widespread industry talk of seeking EXEMPTIONS from carrying them out or implementing them.

The Court also stated: Furthermore, where the parties have agreed that an "agreement to negotiate" or letter of intent, in its entirety, is not a binding legal agreement, Courts have refused to enforce an individual provision of the letter as a freestanding "contract" promise. Therefore since the NRC plans to accept vague commitments with unspecified protocols to be determined at an uncertain date in the future, for certain components and systems in IP3's aging management plan, then the entire plan and new superseding license will be unenforceable and void in part, or in full.

The Court stated further: That language that spoke of future actions and agreements contemplated but not yet completed by the parties showed that the letter "was not the complete and final agreement the parties contemplated would govern" but "merely created an agreement to negotiate in good faith." Such language

clearly manifests an intention to do something essential at a later date, thus the document is not a binding contract but merely an unenforceable agreement to agree and a non-binding letter of intent. A nuclear reactor applicant must not be allowed to operate a facility without a complete and fully enforceable legal license with specific terms of the license in place. Entergy cannot be allowed to have crucial aging management issues non binding because they were set aside under the guise of a promised future commitment.

If the NRC approves a new superseding license based on the Applicant's LRA that contains criteria and obligations of the Applicant that do not have sufficient certainty with regard to the aging management plan, then such License will be void for uncertainty in part or in full. The new superseding license will be nothing more than an "agreement to agree", as to essential terms and conditions, that may adversely affect public health and safety left vague and uncertain, to be defined at an uncertain date and time.

In addition the NRC acceptance of the Applicant's proposed LRA with uncertain and vague criteria, will bar Stakeholders from participating in the review of specific criteria that may adversely affect public health and safety, which is a violation of Stakeholders right to both due process and full redress under the law.

Therefore the Stakeholders contend that the NRC cannot approve the LRA with any vague or uncertain criteria, with unenforceable future commitments which

would cause the new superseding license to be unenforceable and void. This issue is best described and proven with this quote from a GAO Report:

> **"One way in which nuclear power plants fulfill NRC expectations is through regulatory commitments. Regulatory commitments are non-binding statements made by licensees to NRC indicating they will take specific actions, for example, to verify the accuracy of UFSAR information, and they typically reflect the means by which licensees will accomplish the commitment (e.g., in a certain timeframe, following a specific approach)."**

Contention 49-The LRA as relates to IP3 that was submitted fails to include Final License Renewal Interim Staff Guidance. For example, LR-ISG 2006-03, " Staff guidance for preparing Severe Accident Mitigation Alternatives."

The LRA submitted fails to include Final License Renewal Interim Staff Guidance (LR-ISG) for IP3. For example, LR-ISG 2006-03, " Staff guidance for preparing Severe Accident Mitigation Alternatives (SAMA)."

This License Renewal Interim Staff Guidance recommends that applicants for license renewal use the Guidance Document Nuclear Energy Institute 05-01, Revision A, (ADAMS Accession No. ML060530203) when preparing SAMA analyses.

The Applicant failed to include any Interim Staff Guidance in its submittal in spite of the recommendation of the NRC, and in spite of the regulator incorporating

License Renewal Interim Staff Guidance in the next revision of Supplement 1 to Regulatory Guide 4.2, "Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses." Here the Applicant failed to address not just the rule but failed to address the trade guidance documents as well.

> **August 14, 2007 - 72 FR 45466-45467 -NUCLEAR REGULATORY COMMISSION -Notice of Availability of the Final License Renewal Interim Staff Guidance LR-ISG-2006-03: Staff Guidance for Preparing Severe Accident Mitigation Alternatives, Analyses- NRCI is issuing its Final License Renewal Interim Staff Guidance LR-ISG- 2006-03 for preparing severe accident mitigation alternatives (SAMA) analyses. This LR-ISG recommends that applicants for license renewal use the Guidance Document Nuclear Energy Institute 05-01, Revision A, (ADAMS ML060530203) when preparing their SAMA analyses. The NRC staff issues LR-ISG's to facilitate timely implementation of the license renewal rule and to review activities associated with a license renewal application. The NRC staff will also incorporate the approved LR-ISG into the next revision of Supplement 1 to Regulatory Guide 4.2, "Preparation' of. Supplemental Environmental Reports, for Applications to Renew Nuclear Power Plant Operating Licenses."**

Contention 50- The Updated Final Safety Analysis Report (UFSAR) for IP3 fails to meet the requirements of 10 C.F.R.55(a) by deletion of certain required codes and standards, and obviates the ability of a petitioner to perform a technical review as required under 10 CFR 50.4.

Statement of Issue: The Stakeholders assert that The Updated Final Safety Analysis Report (UFSAR) as referenced in the LRA for Unit 3 fails to meet the minimum requirements of *10 CFR 55(a)*, and fails to include codes and standards required to be contained in the UFSAR. This fundamental and cornerstone document was altered between the years 2000, and 2006 to remove essentially all codes and standards and therefore is prima facie in violation of federal rules. Without the Safety Analysis Report including necessary codes and standards the license to operate the facility has no basis to ensure the safe operation and protection of the health and safety of the public.

The Updated Final Safety Analysis Report (UFSAR) as referenced in the LRA for Unit 3 fails to meet the minimum requirements of *10 CFR 55(a)*, and fails to include codes and standards required to be contained in the UFSAR. This fundamental and cornerstone document was apparently altered between the years 2000, and 2006 to remove essentially all codes and standards and therefore is prima facie in violation of federal rules. Without the Safety Analysis Report including necessary codes and standards the license to operate the facility has no basis to ensure the safe operation

and protection of the health and safety of the public. The rules and regulations should not allow codes to be rewritten some place new, renamed or moved someplace out of sight, and out of the public's view, should be easily found where the NRC regulations state they are at.

Contention 51-The Applicant does not have in its possession the Current License Basis (CLB) for Indian Point 3, that is required for license renewal per *CFR 2.390*

FUSE asserts that the Current License Basis for Indian Point 3 is unknown and unavailable, thereby preventing Stakeholders the right to review and analyze plant specific commitments and modifications.

The Applicant is required to have in its possession and control the precise current license basis for each unit. The current license basis (CLB) is defined in *10 CFR 50.3*. The Current License Basis (CLB) which is the cornerstone of any reactor license, and is required for license renewal under the *CFR 2.390* is unavailable for public scrutiny under the guise it is A) ever changing, and B) consists of every document ever created for a reactor.

Granting that said statement is true, if the CLB is the cornerstone of the LRA process, shouldn't citizens have access to it for study, so that we can form our contentions? If we, if the NRC cannot actually see the full document, if massive

amounts of it are buried on old microfiche, how do we/they know exactly what is in it?

> **Contention 51 A-This may explain the NRC comment that there is no list of exemptions that the Licensee intends to carry over into the new superceding license, and we would like that A) in writing, and if it is put in writing, we would ask the board to note that no exemptions (regardless of the word used to describe them-IE deviation, exceptions and exclusion) from the existing license are to be carried over to, and made a part of the new superceding license.** ***This is a separate sub-contention and request.***

Numerous attempts have been made by the NRC as well as the GAO to determine whether the Current License Basis is known, current, documented, and available. None have been successful. The most recent was an investigation by the GAO where it was concluded that the CLB for each plant is *not known*.

This is particularly material, given that pertinent parts of the CLB are required under *10 CFR §2.309* to be available to Stakeholders regarding the license renewal of the plant. The CLB includes the Design Basis Document Program. For IP3 this is referred to as the Design Basis Verification Program, for Indian Point 2, this is referred to as the Design Basis Document Program. The status of design basis program is outdated, and is not reliable as design basis documents. See for example the IP2, IP3 DVP document regarding Appendix R and Fire Protection.

These documents are part of the licensing basis and must have current and relevant portions available to interested parties.

The time clock for submission of a Formal Request for Hearing, and Petition to Intervene should not begin until Stakeholders have access to a full and complete set of un-redacted versions of the LRA and its underlying documents, including but not limited to the FSAR's (all versions), USFAR's (all versions), the most current and up to date company and/or NRC version of the Current Licensing Basis (CLB) which is described in *10 CRF 54.3* as:

> ***Current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic***

letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.

FUSE takes the position that any referenced documents associated with the above is also part of the licensing basis and are thus incorporated by reference into the LRA. Further, it is at the Stakeholder's discretion to determine which of those references are pertinent to performing an adequate technical review of the LRA submitted by the Applicant. Therefore the NRC must deny the Applicants LRA because the Current License Basis (CLB) required for license renewal under *10CFR2.336* is unavailable and unknown.

Contention 52- Safety/Aging Management: Applicant's LRA for Indian Point 3 LLC is insufficient in managing the environmental equipment qualification required by federal rules mandated after Three Mile Island that are required to mitigate numerous design basis accidents to avoid a reactor core melt and to protect the health and safety of the public .

Stakeholder's contend that Applicant's LRA for Indian Point 3 is woefully and dangerously insufficient in managing the equipment qualification required by federal rules mandated after Three Mile Island that require the Applicant to mitigate numerous design basis accidents established to avoid a reactor core meltdown and to protect the health and safety of the public.

Entergy's proposed LRA is not sufficient to demonstrate compliance with neither *10 CFRm50.49(e)(5)* or *10 CFR54*.

Indian Point 3 LLC's LRA does not adequately address the license renewal requirements of *10 CFR 54* specifically under *10 CFR 50.54.4, Scope*, for those components required for renewal defined in *10 CFR §50.49(b)(1)*.

Indian Point wrongly claims credit in their LRA under Table 3.6.1, and EQ analysis in section 4.4 which is out of compliance with the Rule:

- **EQ equipment is not subject to aging management review because replacement is based on qualified life. EQ analyses are evaluated as TLAAs in Section 4.4.**

- **The Non-EQ Insulated Cables And Connections Program will manage the effects of aging. This program includes inspection of non-EQ electrical and I&C penetration cables and connections.**

- **The Non-EQ Instrumentation Circuits Test Review Program will manage the effects of aging. This program includes review of calibration and surveillance testing results of instrumentation circuits.**

The proposed programs are not sufficient to demonstrate compliance with either 10 *CFR 50.49(e)(5)* or with *10 CFR 54* and inadequate to protect human health, safety and the environment in less than worse case scenarios.

Entergy under the approval of the NRC, but with objection of the Advisory Committee on Reactor Safeguards (ACRS), used fuzzy alternative analysis that performed a rudimentary economic analysis so they could disregard federal rules regarding Entergy's current license basis (CLB) with respect to equipment required to operate during a design basis accident. A rudimentary quality study procured by the NRC concluded that a 50 % chance of multiple equipment not functioning was acceptable, based upon this troubling economic analysis.

At Indian Point, the Applicant and NRC concluded that the economic analysis to justify a 50% failure rate was acceptable. Stake holder disagrees, and presents the following Federal Rules for consideration:

> **Under *10 CFR 54.19* of requirements for license renewal, Applicant must provide the information specified in *10CFR50.33(a)* through (e), (h) and (i)...or by reference to other documents that are required for this section. Under §54.21, Contents of the application-technical information, each application must contain the following information:**
>
> **(B) *An integrated plant assessment (IPA).***

For those systems, structures, and components within the scope of this part, as delineated in §54.4, identify and list those structures and components subject to an aging management review. Structures and components subject to an aging management review shall encompass those structures and components:

> **That perform an intended function, as described in § 54.4, without moving parts or without a change in configuration or properties. These structures and components include, but are not limited to, the reactor vessel, the reactor coolant system pressure boundary, steam generators, the pressurizer, piping, pump casings, valve bodies, the core shroud, component supports, pressure retaining boundaries, heat exchangers, ventilation ducts, the containment, the containment liner, electrical and mechanical penetrations, equipment hatches, seismic Category I structures, electrical cables and connections, cable trays, and electrical cabinets, excluding, but not limited to, pumps (except casing), valves (except body), motors, diesel generators, air compressors, snubbers, the control rod drive, ventilation dampers, pressure transmitters, pressure indicators, water level indicators, switchgears, cooling fans, transistors,**

batteries, breakers, relays, switches, power inverters, circuit boards, battery chargers, and power supplies; and

That are not subject to replacement based on a qualified life or specified time period.

(1) Describe and justify the methods used in paragraph (a)(1) of this section.

(2) For each structure and component identified in paragraph (1)(i) of this section, demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the CLB for the period of extended operation.

B. ***CLB changes during NRC review of the application.*** **Each year following submittal of the license renewal application and at least 3 months before scheduled completion of the NRC review, an amendment to the renewal application must be submitted that identifies any change to the CLB of the facility that materially affects the contents of the license renewal application, including the FSAR supplement.**

C. A list of time-limited aging analyses, as defined in § 54.3, must be provided. The applicant shall demonstrate that—

(3) The analyses remain valid for the period of extended operation;

(4) The analyses have been projected to the end of the period of extended operation; or

(5) A list of plant-specific exemptions granted pursuant to 10 CFR 50.12 and in effect that are based on time-limited aging analyses as defined in § 54.3. The applicant shall provide an evaluation that justifies the continuation of these exemptions for the period of extended operation.

Under License Renewal Rule *10 CFR 54*, Entergy must specify components that are within the scope and in particular those that are defined under the requirements of *10 CFR 50.49*. Scope specifies that plant systems, structures, and components within the scope of the License Renewal Rule are: Safety-related systems, structures, *and compon*ents which are those relied upon to remain functional during and following design-basis events (as defined in *10 CFR 50.49 (b)(1)*) to ensure the following functions:

- **The integrity of the reactor coolant pressure boundary;**
- **The capability to shut down the reactor and maintain it in a safe shutdown condition; or**

- **The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in *§ 50.34(a)(1), § 50.67(b)(2), or § 100.11* of this chapter, as applicable.**

- **All non-safety related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1)(i), (ii), or (iii) of this section..**

- **All systems, structures, and components relied on in safety analysis or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection *(10 CFR 50.48)*, environmental qualification *(10 CFR 50.49)*, pressurized thermal shock *(10 CFR 50.61)*, anticipated transients without scram *(10 CFR 50.62)*, and station blackout *(10 CFR 50.63)*.**

The intended functions that these systems, structures, and components must be shown to fulfill in 10 *CFR 54.21* are those functions that are the basis for including them within the scope of license renewal as specified in paragraphs *(a)(1) - (3)* of this section.*[60 FR 22491, May 8, 1995, as amended at 61 FR 65175, Dec. 11, 1996; 64 FR 72002, Dec. 23, 1999].*

The Indian Point application for Unit 3 for License renewal, as it applies to Equipment Qualification Program does not adequately consider the following requirements of *10CFR 50.49*:

I. Accomplishing the safety function by some designated alternative equipment if the principal equipment has not been demonstrated to be fully qualified.

II. The validity of partial test data in support of the original qualification.

III. Limited use of administrative controls over equipment that has not been demonstrated to be fully qualified.

IV. Completion of the safety function prior to exposure to the accident environment resulting from a design basis event and ensuring that the subsequent failure of the equipment does not degrade any safety function or mislead the operator.

V. No significant degradation of any safety function or misleading information to the operator as a result of failure of equipment under the accident environment resulting from a design basis event.

Issues regarding *10 CFR 50.49* were identified under a *Generic Safety Issue number 168.*

Issues regarding *10 CFR 50.49* were subsequently investigated by numerous parties. Many components were found unqualified to function for the 40 years let alone 60 year time should a License Renewal Application be approved. These components are presently installed at Indian Point 2 and 3. It is noted here, that certain components and failures were found as high as 50%. *Id.*

The Advisory Committee for Regulatory Safeguards (ACRS) reviewed the results of GSI 168 and ACRS Comments on GSI 168, and then made a number of recommendations.

> **The staff encouraged the industry to perform further developmental work on techniques for monitoring Instrumentation &Control (I&C cable) conditions. The staff concluded that the current equipment qualification (EQ) process for low-voltage Instrumentation &Control (I&C) cables is adequate for the duration of the current license term of 40 years. Knowledge of the conservatism in the operating environment, as compared to the qualification environment, coupled with observation of the condition of the cables can be used to extend the qualified life of the cables. A combination of condition monitoring techniques is needed since no single technique is effective to detect degradation of Instrumentation &Control (I&C) cables. Test results and other pertinent information should be disseminated to the nuclear industry through a generic communication.**

Additional Comments by Advisory Committee for Regulatory Safeguards (ACRS) Members Dana A. Powers, F. Peter Ford, Victor H. Ransom, Stephen L. Rosen, and John D. Sieber include the following:

> **The staff has recommended a resolution of cable integrity issues for one class of design-basis accidents, loss-of-coolant accidents. For these accidents, temperature and radiation loads are of dominant concern. Other design-basis accidents, such as main steam-line breaks, can impose other loads on cables such as large amplitude vibrations and bending. The staff has not investigated the effects of these other loads on the integrity of aged cables adequately. What the staff has done is adequate to resolve the six, open, sub-issues of GSI-168. The staff should consider additional examinations of cable integrity as part of its ongoing work on mechanical loads and vibrations associated with main steam-line breaks and other design-basis accidents.**

MR. AGGARWAL: Thank you.

As we reported to you previously, there were failures of certain I&C cables in NRC tests, namely in LOCA test numbers 4, 5, and 6. Failures of single conductor bonded Okonite cables. Sampled more cables in test number 4, and eight out of 12 cables failed in LOCA test number 6 for 60 years. We also found in our research that there is no single condition monitoring technique

available which is effective to detect degradation. Probably combination of different techniques can be used, depending upon the type of insulation. We also found that visual inspection can be useful in assessing the degradation of cable with time. (Pg. 224-225)

MR. AGGARWAL: Thank you.

As we reported to you previously, there were failures of certain I&C cables in NRC tests, namely in LOCA test numbers 4, 5, and 6. Failures of single conductor bonded Okonite cables. Sampled more cables in test number 4, and eight out of 12 cables failed in LOCA test number 6 for 60 years. We also found in our research that there is no single condition monitoring technique available which is effective to detect degradation. Probably combination of different techniques can be used, depending upon the type of insulation. We also found that visual inspection can be useful in assessing the degradation of cable with time. (Pg. 224-225)

Turning to the 60-year aging assessment, which was LOCA test number 6, in our test, eight out of 12 cables failed the post-LOCA test. And we have concluded that some of these cables may not have sufficient margin beyond the 40 years of the qualified life. (Pg . 233-234)

(viii) Brookhaven Testing, 4.5.4 Extending Qualified Life

The data obtained from test sequence 6 are of particular interest for the issues related to extending qualified life. In that test, cables from four different manufacturers were pre-aged to the equivalent of 60 years of qualified life and were then exposed to simulated LOCA conditions. As discussed in Section 3.6, a number of the specimens experienced degradation related failures during a submerged voltage withstand test in which they were unable to hold the test voltage. These results indicate that the degradation due to aging beyond the qualified life of the cables may be too severe for the insulation material to withstand and still be able to perform during an accident. For life extension purposes, the qualified life of the cables should be reviewed and compared to actual plant service environments. A determination can then be made as to whether the additional exposure to aging stressors during the period of extended operation will be acceptable for the cable materials.

(ix) Under RIS 2003-09, The NRC accepted the Advisory Committee for Regulatory Safeguards (ACRS) in part, and set aside significant technical concerns in other parts. This is a clear violation. Five members dissented in accepting the study closing GSI.

The staff has concluded that, although a single reliable condition-monitoring technique does not currently exist, walk downs to look for any visible signs of anomalies attributable to cable aging, coupled with monitoring of operating environments, have proven to be effective and useful.

A combination of condition-monitoring techniques may be needed since no single technique is currently demonstrated to be adequate to detect and locate degradation of Instrumentation &Control (I&C cables). Monitoring Instrumentation &Control (I&C) cable condition could provide the basis for extending cable life.

The apparent violation of the Administrative Procedures Act because of the NRC's bypassing of ACRS recommendations regarding compliance to 10CFR50.49, and the implications to 10CFR50.4.

(x) Regulatory Issue Summary (RIS 2003-09)

The staff has concluded that, although a single reliable condition-monitoring technique does not currently exist, walk downs to look for any visible signs of anomalies attributable to cable aging, coupled with monitoring of operating environments, have proven to be effective and useful. A combination of condition-monitoring techniques may be needed since no single technique is currently demonstrated to be adequate to detect and locate degradation of Instrumentation &Control (I&C) cables. Monitoring Instrumentation &Control (I&C) cable condition could provide the basis for extending cable life.

The NRC violated Title 5, Part I, Chapter 7 of the Federal Administrative Procedures Act and that violation has particular relevance to Indian Point 3's license renewal as well as IP3's present ability to cope with certain design basis accidents. Particularly in regard to 10 *CFR 50.49*.

The following are multiple component examples required for safe shutdown of the IP3 which are presently unqualified and will apparently remain unqualified based on Entergy statements found in their LRA. FUSE argues:

> **(1) the violations made by Entergy in failing to comply with the *10CFR50.49* and**
>
> **(2) the violations made by the regulatory agency, the NRC, in accepting the unqualified components as okay, even with a flawed approval based upon industry guidance, that actually violates the law; and**
>
> **(3) the NRC recognized its own errors, and in a series of actions beginning about five YEARS AGO deliberately bypassed the Administrative Procedures Act in an attempt to cover up the blunder by using questionable an unlawful procedural process of probabilistic cost analysis (PRA) and cost benefit analysis, thereby dismissing issues with which the Advisory Committee for Regulatory Safeguards (ACRS) found fault. The NRC then**

closed out the issue articulating supposed endorsement from the Advisory Committee for Regulatory Safeguards (ACRS); and

(4) the GAO has noticed the approach taken by the NRC and Entergy on other issues, yet Entergy failed to act to comply with the regulations. This was the case, in particular, with respect to Indian Point 2, but to a lesser degree, also Indian Point 3.

Recent documents show the NRC intended to set aside compliance with federal rule *10 CFR 50.49*. The Applicant obviously proposes that the present proceedings for relicensing the Indian Point plants yield no alternative other than for the public to accept the violations by Entergy and the NRC and the consequential unsafe material conditions of the plant to withstand the design basis requirements specified in the current UFSAR, as well as the proposed amended UFSAR for license renewal.

Recently completed testing carried out by laboratories working under NRC contract showed cable failure rates on the order of 50%. Yet NRC closed the issue based upon a low quality and questionable economic analysis. The approach was not only unlawful but also, technically irresponsible. Ensuring the functionality of the numerous cables and components required for safe shutdown is one of the major requirements that licensees are required to perform because of the events of Three Mile Island (TMI). To bypass them in the name of License Renewal and a Nuclear

Renaissance is beyond reason, and violates the NRC mandate to adequately protect public health and safety.

This contention should be admitted as is a matter of law, and as a matter of fact. Therefore the NRC must deny the Applicant's LRA because it does not adequately address the license renewal requirements of *10CFR54*, specifically under *10CFR54.4*, for those component required for renewal defined in *10CFR50.49(B)(1)* for an aging management plan, thereby failing to adequately protect public health and safety.

Contention 53-Entergy's License Renewal Application Fails to Include an Adequate Plan to Monitor and Manage Aging of IP3 Plant Piping Due to Flow-Accelerated Corrosion During the Period of Extended Operation.

Stakeholders assert that Indian Point 3 LLC's License Renewal Application does not include an adequate plan to monitor and manage aging of plant piping due to Flow-Accelerated Corrosion (FAC), as required pursuant to *10 C.F.R. § 54.21(a)(3)*. The plant piping is subject to aging management review, pursuant to *10 C.F.R. § 54.21(a)*, and FAC is an aging phenomenon that must be adequately managed. *See* NUREG-1801, *Generic Aging Lessons Learned (GALL) Report,* Revision 1, U.S. Nuclear Regulatory Commission.

Scope and approach of the Flow –Accelerated Corrosion is noted as unchanged as compared to the present licensing basis. Therefore, by implication, scope of the program includes:

10. **Extraction Steam System: (see e.g. IP3-RPT-EX-0911 for Unit 3)**
11. **Condensate Sytem: (IP3-RPT-COND-0912)**
12. **Moisture Separator Drain System: (IP3-RPT-HD-00913)**
13. **Heater Drain System: (IP3- RPT-HD-00979)**
14. **Feedwater System: (IP3-RPT-0984)**
15. **Reheater Drain System: (IP3-RPT-HD-01144**
16. **Moisture Separator Drain System: (IP3-RPT-MSD-01158)**
17. **Historical Inspection Data: (IP3-RPT-MULT-01471)**
18. **Small Bore and Augmented Piping Program: (IP3-00064.000-1)**

A review of an Advisory Committee for Regulatory Safeguards (ACRS) Transcript discussing the predictability of the industry accepted technical approach cited by the Applicant is precisely on point and worthy of quoting the dialogue directly by the ACRS and the admissions by Entergy regarding the weakness in reliability of the methodology, and specifically addresses the Extraction Steam System. Mr. Rob Alersick of Entergy made the following comments during ACRS 2003 meeting in Rockville Chaired by Dr. GrahamWallis:

Mr. ALERISK, [Entergy]: I've had the opportunity to be involved with flow accelerated corrosion since 1989 and in particular have modeled or otherwise addressed approximately 20 EPU efforts in the last two years. Dr. Ford made a very good point earlier when he said that the graph that we looked at did not display a very good correlation between the measured results and the predicted results out of CHECWORKS. Programmatically—well, let me back up a second. That is certainly true in the example that we looked at. That is not always the case. CHECWORKS models are on a per line or per run basis. The run –

CHAIRMAN WALLIS: Could we go back to that graph that we saw? The graph was a plot of thickness versus predicted thickness. Because if you looked at amount removed versus predicted amount removed, it seems to me the comparison will be even worse.

MR. ALEKSICK: That's correct. In fact –

CHAIRMAN WALLIS: That's what you're really trying to predict is how much is removed.

MR. ALEKSICK: Yes, that is true. And my point is that in some subsets of the model, the one that we looked at here which was high pressure extraction

steam, the correlation between measured and predicted is not so good. And in some subsets of the model, the correlation is much better.

CHAIRMAN WALLIS: It looks to me that in some cases it's predicting no removal whereas in fact there's a lot of removal. *So the error is percentage wise enormous?* {emphasis is added}

MR. ALEKSICK: *Yes, exactly* [emphasis added]

Advisory Committee on Reactor Safeguards Thermal Hydraulic Phenomena Subcommittee, January 26, 2003.

Accurate specification of inspection frequency is admitted by Entergy as potentially containing enormous errors. Accurate inspection frequency is the key to a valid FAC management program. Entergy proposes, through reference to *NUREG 1801*, to use a computer model called CHECWORKS to determine the scope and the frequency of inspections of components that are susceptible to FAC.

Accurate specification of scope and inspection frequency is the key to a valid FAC management program. Entergy proposes, through reference to NUREG 1801, to use a computer model called CHECWORKS to determine the scope and the frequency of inspections of components that are susceptible to FAC. Entergy also provides

scope of the FAC program by inference and directly from the LRA only to include limited piping scope.

License Renewal Application Table 3.4.1 ¶ 3.4.1-29*, and *Appendix B § B.1.13* (stating that management of FAC is per *NUREG 1801*, which in turn recommends CHECWORKS) does not meet the requirements of *CFR 54.22

CHECWORKS is an empirical model that must be continuously updated with plant-specific data such as inspection results. Once "benchmarked" to a specific plant, it makes accurate predictions so long as plant parameters, such as velocity and coolant chemistry, do not change drastically. It would take as much as 10 or more years of inspection data collection and entry to the model to benchmark CHECWORKS for use at Indian Point 3 each time there was a change in plant parameters, such as the planned reactor vessel head replacement, replacement of broken pipes, or additional plugs. It is further pointed out, that Entergy's plan to replace the reactor vessel heads of both IP2, and IP3 in 2011 and 2012 respectively would then INVALIDATE CHECWORKS for a period of at least TEN YEARS, making it a non-usable, non-reliable Aging Management tool for a significant period of time into the new superceding license should it be granted.

The Applicant has a track record of broken pipes due to corrosion, the steam generator failure a design basis accident in spite of a very low Probabilistic Risk Analysis (PRA) prediction rate. Thus, Probabilistic Risk Analysis (PRA) or pipe

failures are by themselves unacceptable, and the Applicant's technical basis for a program that prevents pipe rupture or component failure as described in the LRA is inadequate to meet the requirements of *10 CFR 54.21* and other parts of *10 CFR 50*.

Based on the proposed program to monitor and manage FAC, Entergy cannot assure the public that the minimum wall thickness of carbon steel piping and valve components will not be reduced by FAC to below ASME code limits during the period of extended operation.

Finally wear limits acceptance criteria are inconsistent with industry guidance and precedence regarding LRA acceptance, and SER approval for other facilities. Therefore, the NRC must deny approval of the Applicant's LRA, because it does not include an adequate plan to monitor and manage the pipe FAC as required by *10CFR54.21(a)(3)* and *10CFR50*.

Contention 54- Leak-Before-Break analysis is unreliable for welds associated with high energy line piping containing certain alloys at Indian Point 3.

Stakeholders contend that the Leak-Before-Break (LBB) analysis in the Applicant's LRA for IP3 is unreliable and does not provide an adequate aging management plan.

The Leak-Before-Break (LBB) concept is associated with the nuclear power plant design principles with respect to pipe failures and their safety implications. It has been introduced as a means of partially relaxing the requirements concerning postulated double-ended guillotine breaks. During the past few years, Leak-Before-Break (LBB) has received increasing application as a criterion for assessing or upgrading the safety of existing plants whose provision against double-edge guillotine breaks presents deficiencies compared to current requirements.

Technically, the Leak-Before-Break (LBB) concept, defined hereafter, means that the failure mode of a cracked piping is a leaking through-wall crack which may by timely and safely detected by the available monitoring systems and which does not challenge the pipe's capability to withstand any design loading. The concept relies on experiences that double ended breaks and other catastrophic failures of primary circuit piping are extremely unlikely. Various design, operation, inspection and monitoring aspects have been considered as prerequisites.

In recent years and months Indian Point has had a disturbing track record regarding pipe integrity issues, as evidenced by the below time line as reported in the area's paper of record, the Journal News which leads one to believe that their LBB program is actually a BBF (Break Before Fixing) program:

> **September 20, 2005: NRC and Entergy notify the public that radioactive water is leaking from IP2's spent fuel pool. The leak was discovered by**

contractors excavating earth from the base of the pool in preparation for the installation of a new crane, for use in transferring spent fuel from the pool to dry cask storage. NRC later admits that Entergy first discovered the leak twenty days earlier, but did not believe it was serious enough to warrant public notification. NRC orders a special inspection to determine the source of the leak.

October 5, 2005: Entergy notifies the NRC that a sample from a monitoring well located in the IP2 transformer yard shows tritium contamination that is ten times the EPA drinking water limit for the radionuclide, and is consistent with tritiated water. The NRC also states in its report that the monitoring well had not been checked since its installation in 2000, following the transfer of IP's ownership from ConEd to Entergy.

October 18, 2005 : The NRC and Entergy confirm that the radioactive leak discovered in August is greater than initially believed. The radioactive isotope, tritium, has been discovered in five sampling wells around Indian Point 2, while the leak at the spent fuel pool has increased to about two liters per day.

November 26, 2005 : The tritium leak at IP2 remains unsolved, nearly three months after its discovery. Entergy's use of underwater cameras and divers to visually inspect and test for leaks at three locations on the steel liner's

surface yield no results. Entergy must now employ different cameras to inspect the liner near the bottom of the pool, where the radiation is too high for a human diver to enter.

December 1, 2005: IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. In addition, the NRC announces that preliminary tests of tritiated water found in the IP1 Pool Collection System contain too much tritium to be from the IP1 Pool, suggesting that tritium-laced water is being collected in the IP1 Drain from another, unknown source. The NRC and Entergy do not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant.

December 24, 2005 A faulty valve seal that regulates the flow of non radioactive water to one of the plant's four steam generators causes an unplanned shutdown.

August 24, 2006 Faulty valves trigger shutdown of Indian Point 2 Drainage problem developed with discharge valves in a 10,000-gallon tank of non radioactive water.

December 1, 2006 A 1-inch steel alloy pipe that leaked non-radiated steam and water in the containment building that houses the nuclear reactor is repaired.

March 1, 2007 Control room operators unexpectedly shut down the Indian Point 2 nuclear power plant for the fifth time in 15 months after water levels in its steam generators suddenly dropped below normal.

April 4, 2007 A steam generator problem prompted workers to manually shut down the nuclear plant. A problem with one of the two main boiler feed pumps that send water to the plant's steam generators malfunctioned and left water levels too low.

April 7, reported on 24, 2007 A new leak of the radioactive isotope tritium was discovered at Indian Point, coming from an underground steam pipe near the Indian Point 3 turbine building.

May 14, 2007 Tritium is found in the plants sewer pipes.

May 30, 2007 Indian Point 2 interrupts power production due to steam generator problems. The broken water valve is part of a system that feeds water to four generators, producing the steam that turns turbines to make electricity.

September 7, 2007 an alleged pinhole sized leak in a conduit is found. In fact it is a leak in a 20-24 inch fuel transfer pipe, is leaking radioactive effluent.

One prerequisite problem that presents itself, is that locations of piping systems that are susceptible to stress corrosion cracking do not qualify for Leak-Before-Break (LBB) relief. Previously, butt welds associated with 82/182 alloys for example were considered to be free of SCC problems since PWRs operate in low oxygen environments. However, more recent events with these welds have made use of Leak-Before-Break (LBB) highly questionable for these weld alloys. These include VC Summers, and other PWR plants.

Industry guidance as well as emerging regulatory funded studies memorialized in a NUREG *"Conference on Vessel Penetration Inspection, Crack Growth and Repair"* have specifically warned against traditional reliance of Leak-Before-Break (LBB) credited in Entergy's LRA.

Indian Point LRA does not respond to this potential safety threat, and relies wholly on previous studies such as *WCAP-10977m* and *WCAP-10931*. These studies are out of date. See for example, *NUREG/CR-6936. "Probabilities of Failure and Uncertainty Estimate Information for Passive Components – A Literature Review."* In addition, the NRC announced on March 13, 2007, the licensees of 40 pressurized water reactors will raise levels of vigilance concerning reactor coolant system (RCS)

welds. The US Nuclear Regulatory Commission (NRC) has issued Confirmatory Action Letters (CALs) confirming the licensees' commitment (which we now know means NOTHING) to put in place "more timely inspection and [weld] flaw prevention measures, more aggressive monitoring of RCS leakage, and more conservative leak rate thresholds for a plant to shut down to investigate a possible [coolant water] leak." The measures should be put in place and welds inspected during an outage before the end of 2007. If no outage is scheduled this year, they must justify an extended schedule to the NRC.

The concerns are centered on welds containing Alloy 82 and Alloy 182, used to weld together alloys like Inconel 600 and 601 as well as dissimilar metals such as carbon steel and stainless steel. The steps were taken after the discovery of certain flaws in the welds of the pressurizer at the Wolf Creek plant, which "were repaired and did not affect the safe operation of the plant." The CALs are an interim measure while the American Society of Mechanical Engineers updates its Boiler and Pressure Vessel Code, which will subsequently be reviewed and incorporated into NRC requirements.

Therefore Stakeholders reiterate that the NRC must deny the Applicant's LRA for Indian Point 3 because it does not contain a reliable and adequate Aging Management Plan with regard to piping and welds which puts at risk public health and safety during the 20 year new superseding license.

Contention 55-(Environmental) The Applicant's LRA for IP3 does not specify, as required in *10CFR50.65* and *10CFR50.82(a)(1)*, an Aging Management plan to monitor and maintain all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions.

The Stakeholder's contend that the Applicant's LRA for IP3 LLC does not specify, as required in *10CFR50.65* and *10CFR50.82(a)(1)*, an Aging Management plan to monitor and maintain all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions. Further, Licensee fails to provide adequate plan to handle spent fuel storage for a period of a 20 year period of license renewal, since many of the proposed casks planned to store waste during the period of license renewal will see their rated service life expire before the end of the license renewal period.

The condition of the Spent Fuel pool at Indian Point 2 is known to be compromised, and IP 3 LLC intends to use said spent fuel pool to transfer their spent fuel rods using said pool. Since at least 2005, when an independent contractor working on

installing a crane in order to remove spent fuel into dry cask storage stumbled upon a underground leak at the corner of the pool, and the NRC, the Applicant and the public know that leaks exist. However, the extent, location, length and quantity of the leaks remains unknown, a mystery that has perplexed Entergy for over two years as radiological contaminants continue to edge every closer to the Hudson River.

What is known is that the Applicant intends to use a spent fuel pool that the licensee for IP2 failed to maintain in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components fulfill intended functions as required by *10CFR50.65* Requirements for monitoring the effectiveness of maintenance at nuclear power plants, requirements meant to protect human health and the environment.

The requirements are applicable during all conditions of plant operation, including normal shutdown operations.

> ***10 CFR54.4 (a)(1) Each holder of a license to operate a nuclear power plant under §50.21(b) or 50.22 shall monitor the performance or condition of structures, systems, or components, against licensee-established goals, in a manner sufficient to provide reasonable assurance that such structures, systems, and components, as defined in paragraph (b), are capable of fulfilling their intended functions. Such goals shall be established commensurate with safety***

and, where practical, take into account industry-wide operating experience. When the performance or condition of a structure, system, or component does not meet established goals, appropriate corrective action shall be taken. For a nuclear power plant for which the licensee has submitted the certifications specified in Sec. 50.82(a)(1), this section only shall apply to the extent that the licensee shall monitor the performance or condition of all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended functions.

In the LRA for Indian Point 3 the Applicant does not propose an Aging Management Plan that adequately addresses the compromised condition of the Spend Fuel Pools for IP1, IP2 or IP3, or an adequate Aging Management Plan to address the intended function of the pools which is the safe containment of radioactive contamination from leaking into the environment.

The spent fuel pool's 30 year old irradiated concrete, rebar, and steel liner, are currently in a compromised, degraded condition, and cannot maintain intended function for a period of 20 more years, putting members of the public in potentially grave perile.

In the past year, it was accidentally discovered that ongoing, unplanned, unmonitored leaks of liquid radioactive effluents, including tritium, strontium 90 and cesium 137, are leaking from Indian Point into the groundwater and Hudson River ("Radiation Leaks"). In most cases, the duration, extent, flow paths, and/or source of the Radiation Leaks, remain unknown. To date, Radiation Leaks have been discovered throughout the Indian Point 1, 2, and 3 complex. The Radiation Leaks can neither be repaired nor remediated until sources have been found. Leaks cannot be found short of License Renewal denial, and placing the entire facility into a rapid response decommissioning mode.

As of the date of this submission, upon information and belief, the Radiation Leaks result from separate, and a multitude of onsite systems, structures and components including all Spent Fuel Pools, with leaks including the following pathways:

(A) Cracks in spent fuel pools;

(B) Failed or degraded fuel transfer tube sleeves;

(C) Cracks and fissures.

(D) Leaks in underground reactor coolant and water supply pipes.

(E) Unknown leaks on the HOT side of the plants systems.

(F) Reactor Core bottom leakage.

Since September 20, 2005 the integrity for the Spent Fuel Pools have been investigated by the Applicant, however to date the Applicant has not been able to

identify and locate the leaks. The following is a chronology of the spent fuel problems at Indian Point:

I. September 20, 2005: the NRC and Entergy notify the public that radioactive water is leaking from IP2's spent fuel pool. The leak was discovered by contractors excavating earth from the base of the pool in preparation for the installation of a new crane, for use in transferring spent fuel from the pool to dry cask storage. Entergy first discovered the leak twenty days earlier, but did not believe it was serious enough to warrant public notification. NRC orders a special inspection to determine the source of the leak.

II. October 5, 2005: Entergy notifies the NRC that a sample from a monitoring well located in the IP2 transformer yard shows tritium contamination that is ten times the EPA drinking water limit for the radionuclide, and is consistent with tritiated water from a spent fuel pool. The NRC broadens its special inspection to include this new information. The NRC also states in its report that the monitoring well had not been checked since its installation in 2000, following the transfer of IP's ownership from ConEd to Entergy.

III. October 18, 2005 : The NRC and Entergy confirm that the radioactive leak discovered in August is greater than initially believed. The radioactive isotope, tritium, is discovered in five sampling wells around Indian Point 2, while the leak at the spent fuel pool has increased to about two liters per day.

IV. **November 26, 2005 : The tritium leak at IP2 remains unsolved, nearly three months after its discovery. Entergy's use of underwater cameras and divers to visually inspect and test for leaks at three locations on the steel liner's surface yield no results. Entergy must now employ different cameras to inspect the liner near the bottom of the pool, where the radiation is too high for a human diver to enter.**

V. **December 1, 2005: Entergy reports to the NRC that an initial sample from a new monitoring well five feet from the wall of the IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. The NRC still does not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant.**

VI. **February 24, 2007 a cracked fuel rod is found at Indian Point 2. in the reactor's spent-fuel pool .**

VII. **On September 7, an alleged pin hole sized leak in conduit, a pipe 20-24 inches, a fuel transfer tube and a component of the Spent Fuel Pool 2 was found to be leaking.**

The Applicant's license renewal application (LRA) for IP3 LLC fails to lay out, in detail, a workable aging management plan to deal with known leaks, and serious degradation issues in Spent Fuel Pool 3. The LRA, and the UFSAR's for Indian Point 3 inadequately address the currently existing, known and unknown, environmental affects of ongoing leaks from the Spent Fuel Pools, and fails to lay out a workable aging management plan for said leaks. The only plan set forth to date, with the consent of the NRC is leave the radioactive effluent in the ground, which in time will leach into the ground water and the Hudson River.

Due to the location of the leaks on the banks of the tidal Hudson, by allowing the radioactive contamination to remain in the ground during the 20 year new superceding license period, the radioactive effluent/contaminants leaking from Spent Fuel Pools and other areas of the site will continue to be leached into the Hudson River, potentially harming and making unsafe the public waterways within six communities near the tidal area of the Hudson currently using the river for drinking water. New York City's emergency water station is located in Croton, just a few miles down River, and the County of Rockland has just received a proposal from United Water to use the Hudson River for drinking water.

Any other business or industry, such as a dry cleaner, gas station or chemical plant, that was leaking pollution into the groundwater and river, would be immediately fined and shut down, until all the leaks had been identified, stopped and fully remediated. By even considering the Applicant's LRA for an new superseding

license of 20 years, prior to a comprehensive remediation of the Radiation Leaks, the NRC has clearly surrendered its role as a regulator, and has violated it's mandate to protect public health and safety.

Neither the Applicant nor the NRC have identified an adequate aging management program for the various known and unknown leaks, thereby endangering public health and safety, by wanting to permit unregulated radioactive waste to continue to be released into the environment during a 20 year new superceding license period. This is not only an unacceptable Aging Management Program issue, but also is indicative of egregious, irresponsible and wanton negligent management by the Applicant and by the regulator.

Therefore Stakeholders assert the NRC cannot approve the Applicant's LRA until the integrity of Spent Fuel Pools and other components/systems are restored to design basis, and the leaks from Spent Fuel Pools and other sources are fully remediated.

Contention 56-(Environmental) The LRA, and the UFSAR's for IP 3 inadequately address the currently existing, known and unknown, environmental affects and aging degradation issues of ongoing leaks, and fails to lay out workable aging management plans for said leaks and systems imperative for Safe Shut down and cooling of the reactor.

Stakeholders assert that the Applicant's License renewal application (LRA) for IP3 LLC fails to lay out, in detail, a workable aging management plan to deal with known leaks, in the underground pipes, steam pipes and other systems critical to Safe Shut Down of the reactor, and cooling of the spent fuel pool. The LRA, and the UFSAR's for IP3 inadequately address the currently existing, known and unknown, environmental affects of ongoing leaks, and fails to lay out a workable aging management plan for leaks. Examples of inadequately addressed aging management issues which are poorly stated, vague and ambiguous include but are not limited to:

The reactor's coolant pump seal provides a critical leakage barrier between the pressure boundary and numerous rotating parts that seal the pressurized reactor used in primary coolant systems. IP's LRA fails to provide adequate proof of a proper safety analysis of this critical seal, nor does it provide a detailed aging management plan, despite industry knowledge of leakage associated with this critical component. Unexpected and/or abnormal shaft movement or misalignment can introduce motions including but not limited to shaft tilt, radial offset and orbit, and depending on the magnitude and scope of this displacement, and thus the seal arrangement, creates potentially dangerous site specific operational issues of concern, and site specific wear (aging) effects that must be accounted for with a detailed site specific aging management plan.

It appears from IP3's LRA that applicant contends the feedwater heater is outside the scope of License Renewal. We disagree. The feedwater heater is a crucial component in maintaining thermal performance, but more importantly, aging issues unchecked contribute greatly to INCREASED pipe fatigue and failure, which in turn increases leakage issues for key component pipes in the reactor system. Simply stated, loss of feedwater will impose SEVERE STRESS on the entire plant in terms of increased heat flux in the fuel, and greatly increased (and associated fatigue) on feedwater nozzles, headers, and piping. ***41. U.S. Nuclear Regulatory Commission, "Rates of Initiating Events at U.S. Nuclear Power Plants 1987-1995", NUREG/CR-5750, February 1999.***

- **Various piping industry sources place the life expectancy of stainless steel pipes as little as 20 years without proper chemistry controls, and cumulative usage factors being improperly analyzed under finite element analysis and other mechanistic based failures often due to improper maintenance of the system. IP3 is now in its 32rd year of licensing. There exists no detailed aging and maintenance plan which provides an indication of adequate management of chemistry, or fundamental maintained requirements such as those required in** ***10 CFR 50.65*** **found in the LRA. In addition, there are no commitments (which are useless even if they did exist) that provide a viable and workable pipe or component replacement strategy for key component pipes needed for the cooling and safe shut down of the reactor.**

- **Unplanned, unmonitored leaks of liquid radioactive effluents, including tritium, strontium 90 and cesium 137, are leaking from Indian Point into the groundwater and Hudson River ("Radiation Leaks"). In most cases, the duration, extent, flow paths, and/or source of the Radiation Leaks, remain unknown. To date, Radiation Leaks have been discovered throughout the Indian Point 1, 2, and 3 complex. The Radiation Leaks manifestly can neither be repaired nor remediated until sources have been identified and/or located.**

As of the date of this submission, upon information and belief, the Radiation Leaks result from separate, and a multitude of onsite systems, structures and components, including, the following:

(A) Failed or degraded pipes (including pipes that transport liquids and pipes which transport steam);

(B) Cracks in spent fuel pools;

(C) Failed or degraded valves;

(D) Reactor vessel failed welds in the bottom or vessel (which inspectors have been unable to adequately view and reach);

(E) Pinhole leaks around weld joints;

(F) Failed or degraded gauges;

(G) Failed or degraded fuel transfer tube sleeves;

(H) Failed or degraded steam generator tubes;

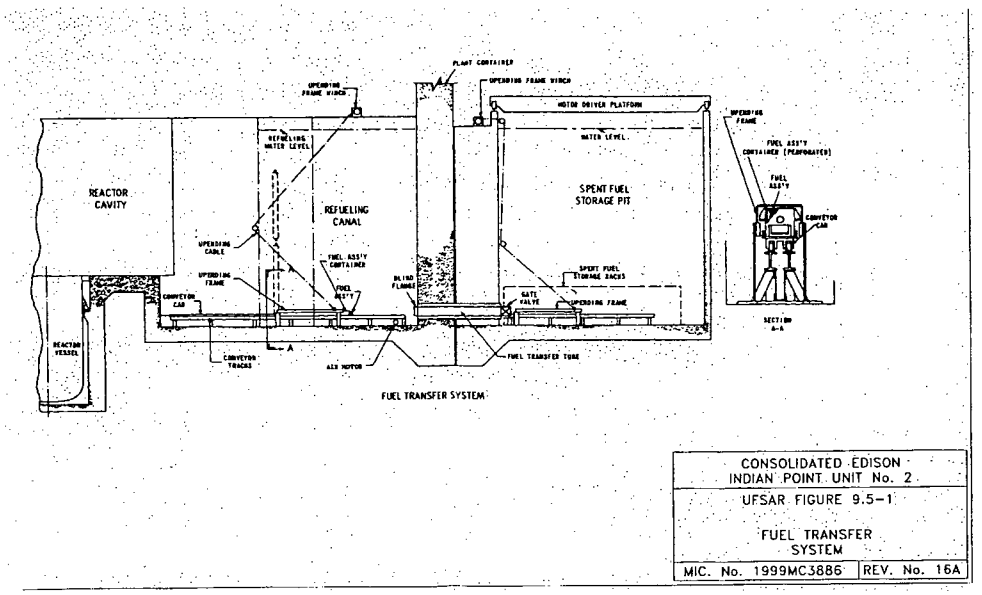
(I) Inadequate or improperly operating drain systems;

(J) Cracks and fissures.

The facts provide that pipes both stainless and carbon alloy are cracking and breaking at Indian Point. For example, only recently in September of 2007, Entergy admitted to finding a leak in the conduit that is a part of the fuel transfer canal between the reactor and the spent fuel pool. The article in the Journal News stated in part:

> **By BRIAN J. HOWARD**
>
> **THE JOURNAL NEWS**
>
> **(Original publication: September 7, 2007)**
>
> **BUCHANAN - Workers have discovered a pinhole-sized leak in a *conduit* used to transfer spent fuel from the reactor to the containment pool at Indian Point 2.**
>
> **The leak was found Wednesday during testing for groundwater contamination from leaks of radioactive tritium and strontium 90 that were first discovered in 2005. "It appears that there is a potential pinhole leak in the fuel transfer canal, which we believe could be a contributing source to the groundwater contamination that we've been talking about," said Jim Steets, a spokesman for Entergy Nuclear Northeast, the plant's owner.**

A conduit is commonly understood to be an electrical conduit on order of 1 or 2 inches in diameter. However this is a gross misrepresentation, as the pipe in question is in fact a 20-24in pipe. There is a world of difference between conduit and pipe, and the Applicant and NRC clearly know the difference. Entergy's representative purposely released misleading information to the public, when he alleged it to be pin hole sized leak in conduit. Further, the leak is more than likely, a leak in the FUEL TRANSFER TUBE, which may have a much greater impact on the integrity of the entire Indian Point facility given the compact design of the entire plant.



It is worthy of note that irradiated water from this recently discovered leak, and all the other leaks flow into fissures in the bedrock under the plant, and will eventually leach into the tidal Hudson River. Many of the cracks and fissures in the bedrock

were created when the bedrock was blasted as the plant was first built, and therefore the irradiated effluent can take a very convoluted route into the environment, the groundwater and the Hudson River. Further, it has just been discovered that some radiological contaminants have a direct route into the discharge canal, and are instantly draining unchecked into the Hudson River.

The multiple leaks at Indian Point provide direct evidence of underground pipe failure and/or degradation due to the aging of various systems. Such systems are not being adequately inspected or addressed by the applicant, and proof that the applicant's management of aging issues is wholly inadequate.

In fact, certain Radiation Leaks, including tritium leaks allegedly from underground pipes on the "non-radioactive" side of plant were discovered purely by random accident on April 7, 2007, rather than via a coordinated, intelligent aging management and inspection plan. Other leaks were discovered, only because special excavation work being done by a contractor led to investigations after tritium contaminated water was found seeping from surface cracks in spent fuel pool number 2, not through regular inspection and maintenance . In fact the length of time and extent of the Radiation Leaks have existed remains unknown. Further, Sherwood Martinelli has just pieced together several key NRC documents that prove some of the tritium being leak is coming from the hot leg of the plant, rather from just the spent fuel pools. This information will be shared in an upcoming contention.

The multiple leaks are symptomatic of an aging system, that was not properly and comprehensively inspected and maintained during the initial license period, and Entergy deplorable record (IE-collapsing cooling towers at Vermont Yankee, the financial raping of the citizens of New Orleans) we have no reason to believe they will change stripes during and extended period of operation. There is no reason to believe that during the 20 years of the new superceding license the Applicant will do a adequate job of properly inspecting, maintaining and managing the aging facility. Nor does the LRA identify an aging management plan to locate, stop and remediate the current and future leaks. There are only vague references to best industry standards which Entergy avoids like the plague, and sparsely defined sketches of potential aging management plans to deal with leakage issues caused from corrosion, fatigue, thermal shock, FAC (flow-accelerated corrosion), and other leakage causes of concern during the 20 year period of license renewal.

At the Kashiwazaki plant in Japan, in July 2007, radiation leaked into the environment through a small hole, then flowed along electrical cabling, then into an air conditioning duct, then into a drainage ditch, and then finally out into the sea. The hundreds if not thousands of Indian Point leaks could be finding remote pathways into the Hudson River on a daily, even hourly basis. The existence of the Radiation Leaks provides direct evidence of underground pipe failure and/or degradation that has not been adequately addressed by the licensee. Ordinary maintenance failed to reveal the specific locations of numerous Radiation Leaks,

therefore the limited aging management programs indicated in the LRA will also fail to identify radiation leaks before they cause damage to the environment, or before the leaks become breaks.

As example, there is no aging management plan to address known potential pipe bursts in piping adjacent to plugged tubes in IP3's LRA. Further the LRA does not specify comprehensive visual inspections, vacuum testing and ultrasonic testing for all pipes, including buried pipes to determine corrosion, failure, environmental fatigue and other aging affects.

Moreover, at an April 26, 2007 public NRC meeting in Cortlandt, N.Y. ("April NRC meeting"), NRC and Applicant representatives conceded that they did not even know the metallurgic composition of much of the underground piping. Without a complete and comprehensive knowledge of the composition and layout of the underground piping system the Applicant will be unable to implement an adequate aging management plan.

Inaccessibility limits the inspection and testing of substantial segments of these aged and leaking pipes and components which play crucial roles in the cooling and safe shut down of the IP3 reactor, especially those having a buried or embedded environment. Thus, the Applicant cannot assure the NRC and the public that they will be able to manage effects of aging, soil elements, the intake of brackish water from the Hudson River and/or storm surges during the 20 year new superceding

license period, which have already caused dangerous corrosion of Indian Point's entire piping, valve and gauge system resulting in the current leaks. It is further noted, that IP3 has not addressed the unique corrosion issues associated with the use of brackish water in the coolant process.

In the past few years there has been a significant increase in the amount of leaks found through out the Indian Point facility which indicates that as the plant ages there will be increased frequency and size of pipe leakage during the 20 year period of license renewal. Since August 2005 the Applicant has not been able to identify the source of the leaks, the duration of the leaks, or with any accuracy determine the exact amount of leakage.

On December 1, 2005, the applicant reported to the NRC that an initial sample from a new monitoring well five feet from the wall of the IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. In addition, the NRC announces that preliminary tests of tritiated water found in the IP1 Pool Collection System contain too much tritium to be only from the IP1 Pool, suggesting that tritium-laced water is being collected in the IP1 Drain from another, unknown source. The Applicant still does not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant.

All of the Radiation Leaks point to the imperative necessity for a complete inspection and comprehensive corrosion analysis of all underground and critical in scope piping systems and associated equipment that contribute to significant aging, fatigue, corrosion and vibrational degradation. Compromised pipes can cause or fail to mitigate a serious accident, including a core damage event. Therefore, to properly maintain the aging facility any and all compromised pipes must be replaced, including but not limited to, the ones under the reactor where information from discussions with Indian Point workers leads us to believe seals may be leaking.

The insufficiency of a reliable aging management program in the LRA of IP 3 LLC increases the exposure risks of plant workers during the 20 year period of license renewal, and greatly increases the potential for a significant nuclear incident at the Indian Point facility during the period of license renewal, as increasing leak rates negatively impinge upon the core cooling component structures, and increase the risk of severe pipe ruptures that would lead to a release of unmonitored and uncontrolled radioactive contaminants into the environment, including the Hudson River, thus presenting a significant and increased risk to public health and safety.

The NRC itself has expressed concerns on this very issue as relates to ALL license renewal requests, and requested as a part of the license renewal application process that their licensees perform an assessment to ascertain and/or determine the potential severity of the effects of reactor water coolant environment on fatigue. Further, where appropriate, the NRC further suggested license renewal applicants

provide a proper aging management plan to deal with said fatigue issue. This concern was/is included in discussions found in *NUREG/CR-6674*.

The Applicants in their LRA for IP3 LLC make a brief reference to reliance on a nuclear regulator approach to this significant issue, yet fail to identify with specificity an aging management plan which deals with the unique site specific environmental effects at the Indian Point facilities. The adequacy, or lack there of, as relates to this specific aging management issue is a matter of fact, that can only be resolved after interested parties, including community Stakeholders have an opportunity to submit evidence, cross examine expert witnesses, and a conduct a full review of Entergy's supporting and/or discovered documents and a full in-depth review has been conducted on the part of the hearing board.

Entergy's Indian Point facility (IP1, IP2 and IP3) have numerous serious leak issues. It is further known that leaks in the cooling pipes (critical components in the reactor water coolant process) present a serious plant specific safety issue/problem if an adequate aging management plan is not in place. Currently it is not. Maintenance logs and other documents that will be found in pre-hearing document discovery will prove IP2 and IP3's aging management plan for this issue is woefully inadequate. Further, there are numerous NRC inspection documents identifying leak issues at the plant which will support this contention. The NRC and the nuclear industry have admitted that environmental fatigue will increase the rate, volume and number of these leaks during the period of 20 years of additional operation of these aged

facilities. Indian Point's leaks are some of the most severe in the entire industry, and public safety must supercede Entergy profiteering.

The industry's newly developed and unproven approach to this known aging issue is inadequate, and fails to adequately address the unique environmental issues specific to IP3 and the Indian Point site , as said plants rely upon a unique brackish water supply for their reactor core cooling system.

The generic, self serving industry approach is inadequate to address the unique site specific leaks in the pipes at Indian Point, as evidenced by various already identified leaks. Leaks are a precursor to PIPE BURSTING in nuclear reactors primary coolant systems.

IP3's poorly defined and inadequate aging management issues as relates to this specific issue greatly increase the chances of a significant RADIOLOGICAL incident. such as large pipe burst, that could lead to an off site release of radioactive contaminants, thus creating a significant risk to human health and the environment, if as is contended here, said aging management plan is inadequate to properly address this aging management issue.

The NRC and Entergy do not have an aging management plan for the underground Radiation Leaks, thereby defacto endangering the public's health and safety, by permitting unregulated radioactive waste to continue to be released into the

environment now, and if granted, during the 20 year new superceding license period. Not only is lack of an adequate aging management program at issue, but also it is indicative of irresponsible and negligent management by the Applicant, Entergy, and improper oversight by the regulator, the NRC.

FUSE contends that the NRC must deny the Applicant's LRA for IP3 LLC because it fails to adequately address the current Radiation Leaks, and fails to provide an effective and adequate Aging Management Plan with regard to future Radiation Leaks, and therefore fails to adequately protect public health and safety, and the environment.

Supporting Document References for This Contention (All easily attainable via the work wide web, unlike the NRC and their constantly failing ADAMS system.)

1. NUREG/CR-5999 (ANL-93/3), "Interim Fatigue Design Curves for Carbon, Low-Alloy, and Austenitic Stainless Steels in LWR Environments," April 1993

2. NUREG/CR-6260 (INEL-95/0045), "Application of NUREG/CR-5999 Interim Fatigue Curves to Selected Nuclear Power Plant Components," March 1995.

3. NUREG/CR-6583 (ANL-97/18), "Effects of LWR Coolant Environments on Fatigue Design Curves of Carbon and Low-Alloy Steels," March 1998.

4. NUREG/CR-5704 (ANL-98/31), "Effects of LWR Coolant Environments on Fatigue Design Curves of Austenitic Stainless Steels," April 1999.

5. NUREG/CR-6674 (PNNL-13227), "Fatigue Analysis of Components for 60-Year Plant Life," June 2000.

6. U. S. Nuclear Regulatory Commission, Generic Safety Issue 190, "Fatigue Evaluation of Metal Components for 60-Year Plant Life."

Contention 57-The Applicant has failed in its LRA for IP3 LLC to include as part of the EIS Supplemental Site Specific Report any refurbishment plans in order to meet the mandates of NEPA, of NRC 10CFR 51.53 post construction environmental reports or of NRC 10CFR 51.21.

Stakeholders assert that the Applicant's LRA fails to comply with *10CFR 51.21* and *10CFR51. 23*, by failing to provide any refurbishment plan for already planned and contemplated refurbishment during the proposed 20 year new superseding license.

The Applicant is required in its EIS Supplemental Site Specific Report required to fulfill the requirements of *NEPA*, and codified in *10 CFR* Rules and Regulations as defined in *51.21* and *51.53* requires NRC licensees filing a LRA for the purpose of license extension to include as a part of the EIS Supplemental Site Specific Report any refurbishment issues/plans and the environmental risks/impacts associated with said refurbishment. The Applicant by evidence provided below failed to comply with this rule.

In the Applicant's filed LRA for Indian Point 3, in Appendix E, Supplemental Environmental Report, section 3.3 of it's Environmental Report Refurbishment Activities, the Applicant simply and dismissively states that:

> ***"there are no such refurbishment activities planned and/or anticipated at this time"***

and thus provide the Nuclear Regulatory Commission no Environmental Report on refurbishment. By claiming that there are no refurbishment activities planned, the Applicant indicates that there are no environmental concerns which need to be addressed in the LRA.

However, the Applicant omitted the fact that it had already prepared for a major refurbishment by ordering a Replacement Reactor Vessel Head for Indian Point 3, with delivery date scheduled for 2012, as evidenced by the attached page (a true and accurate copy of the PDF web based file) of the Doosan Heavy Industries Construction Co., Ltd presentation at the Burns & Roe 17th Annual Seminar, Powering the Future, March 21, 2007 and contracted the engineering and construction required for this substantial refurbishment:

Entergy Replacement Reactor Vessel Head

(E) Customer: Entergy

(F) Projects: ANO #2 (Site Delivery: January, 2008), Waterford #3 (Site Delivery: February, 2008), Indian Point #2 (Site Delivery: October, 2011), and Indian Point #3 (Site Delivery: October, 2012)

(G)Primary Contractor: Westinghouse

(H)Scope: Four (4) RRVHs

(I) Two (2) sets of CRDM (for Indian Point #2 & 3 only)

(F) Manufacturer: DOOSAN (EMD supplies CRDM as the sub supplier)

The plans to replace the reactor head for Indian Point Units 2 and 3 as well as the CRDMs is costly—of order of 15-20 million dollars per unit. The applicant only purchased these heads for Indian Point and two other facilities. Not for the entire fleet. FUSE asserts that these plans even if actual installation date is not established or even if the modification is potentially firm at this point that the Stakeholders are entitled to more than just mere silence on this issue.

The Doosan presentation is clear evidence of the Applicant's plans for refurbishment. Refurbishment on the scale of a reactor head replacement, which has already been ordered and with a specific delivery date makes this omission by the Applicant deliberate. Hundreds of people are involved in a decision to replace a reactor vessel head, and the plan requires senior management approval of such a costly refurbishment. Since at least 2003, boric Acid corrosion and rust in the reactor vessel head were degradation issues known by the Applicant, and may be major contributory factors in the Applicant's decision to plan the significant refurbishment of reactor vessel head replacement.

The Applicant is a multinational corporation with extensive knowledge and expertise in the nuclear reactor industry and with ownership rights to eleven nuclear reactors in America. Therefore the omission of this significant and already planned reactor refurbishment during the proposed 20 year new superseding license, from the Supplemental Environmental Report attached to the Applicant's LRA as Appendix E was neither accidental, nor a mere oversight in compilation of its License Renewal Application. Some would call such a grave omission a scum sucking lie, but then this is Entergy we are talking about.

Further, the Applicant offers itself up as a supplier of expert assistance in the filing of LRA's to other NRC licensees considering a 20 year license renewal for their own facilities.

- **Therefore, Stakeholders contend that the Applicant, the second largest reactor owner in the United States, deliberately hid material facts, and egregiously submitted a materially false LRA, in a violation of *10 CFR 50.5* and *10CFR50.9*,by attempting to hide significant environmental, health and safety concerns in an attempt to streamline approval of it's LRA, that could greatly impact the safety of the Stakeholder's community.**

- **The Applicant has not fulfill its legal obligation as delineated in NEPA references and the Code of Federal Regulations in reference to preparing and submital, as part of their applications, a description of the proposed refurbishment actions, including any plans by the Applicant 'to modify the facility' and describe in detail the modifications affecting the environment or affecting plant effluence that affect the environment' *10CFR 53(c) (1)(2)*.**

- **Moreover, *10CFR 5 (c)(3)(ii)(E)* mandates that 'all license renewal applicants shall access the impact of refurbishment and other license renewal related construction activities on important plant and animal habitats. Additionally, the Applicant shall assess the impact of the proposed action on threatened or endangered species in accordance with the Endangered Species Act'.**

- **Replacement of a reactor vessel head for Indian Point 3 is not only a refurbishment issue, but a significant environmental issue that affects public health and safety on many levels, and that must be evaluated during the**

license renewal process. The means and method of disposal of the irradiated old reactor vessel heads must be addressed, in the Aging Management Plan.

- **Indian Point was not designed, nor licensed to act as a radioactive waste storage facility, however with the closing of Barnwell to Indian Point radioactive waste streams beginning in 2008, the impacts of any and all radioactive waste streams, including disposal of old reactor vessel heads, generated at Indian Point, are an issue of paramount importance for the safety of the Stakeholder community.**

- **The Applicants have failed to provide the mandated reports specificity required, and have also failed to provide environmental reports required with regard to its plans to change or modify the facility or refurbish same.**

- **As Stakeholders living within 3, 10 or 50 miles of the Indian Point facility owned by the Applicant any reactor refurbishment issue that contributes to any potential environment, health or safety risks is of great concern.**

- **Hiding or ignoring significant information is in contradiction to the NRC regulations which requires LRAs to be complete, accurate and truthful. The NRC must revoke it's acceptance of the Applicant's LRA's as incomplete and inaccurate, and further take administration legal action to hold the**

Applicant accountable for their deliberate and egregious attempt to defraud and perpetrate a falsehood in a federally filed document.

The reactor core coolant system, and all its primary parts, including piping are within the scope of the license renewal process, as is the reactor vessel head. By proxy, and by NRC regulation, planned refurbishment of the reactor vessel head for Indian Point 3 is fully within scope. Therefore, this contention brought by the Stakeholders against Indian Point 3 regarding refurbishment is within the scope of Entergy's License Renewal Application.

There exist issues of fact and/or law in this contention. The reactor vessel head replacement is never a like-for-like switch of components or equipment, and is one of the most critical refurbishments that a reactor licensee can undertake. In some situations replacement of the reactor vessel head may require cutting a hole into the containment, and stakeholders have reason to believe this is the case for reactor vessel head replacement at IP2 and IP3.

Reactor vessels are far beyond tangential components. They contain the nuclear fuels in the plants, and, over time, are irradiated which can lead to embrittlement, deterioration, loss of material, and less able to withstand flaws which may be present.

The 2002 incident at the Davis Besse Nuclear Plant highlights the integral nature of the vessel and the vessel heads. Despite this vast knowledge pool, the Applicant neglected to list, describe or report the vessel head replacement, or any other refurbishment actions in the environmental supplement of the LRA and marked as Appendix E.

The omission of significant refurbishment issues from the EIS Appendix E cause Stakeholders to claim that the Applicant has egregiously taken the position that the above changes and reactor modifications are not within the purview of the LRA application, in violation of NRC regulations. The refurbishment of the vessel head, and other proposed changes and refurbishments necessary for the replacement of the reactor vessel head, yet undisclosed, are within the scope of *10 CFR 53* and *10 CFR 54.21*. As stated by the NRC:

> ***For the purposes of the Environmental Impact Review, refurbishment describes an activity or change in a facility that is needed to support operations during the renewal term.***

The replacement of the reactor vessel heads are needed to support operations during the applied for new superseding term of an additional 20 years. Further the *10CFR 53* and 10CFR 54.21 require the Applicant to include such reactor vessel head replacement in the environmental report, delineating with specificity all potential impacts, remediation, and alternatives, including but not limited to,

worker radiation exposure, construction traffic and noise, construction runoff, radiation releases, impacts on plant and animal habitats, and the impact of the proposed actions on threatened or endangered species in accordance with the Endangered Species Act.

NRC places great importance on integrity and honesty in the submission of documents to the agency, to ensure trustworthiness and integrity are beyond reproach. The NRC writes:

> ***It is paramount to the mission of the NRC for the licensee to maintain information and communicate with the NRC in such a manner that all information is complete and accurate in all material respects to allow the NRC to complete their mission.***
>
> ***It is the responsibility of the licensee personnel to work together to ensure the health and safety of the public and plant personnel.***
>
> ***Effective, complete and accurate communication is required to ensure this vital goal, regardless of the potential financial or business impact.***

Reactor vessel head replacement is a complex reactor refurbishment project that involves almost every major department, and 100's of personnel, including Senior

Members of Management. Omission of such a significant project from the LRA applications of IP2 is a serious violation of *10 CFR 50.5* and *50.9*.

§ 50.5 Deliberate misconduct

(C) Any licensee, applicant for a license, employee of a licensee or applicant; or any contractor (including a supplier or consultant), subcontractor, employee of a contractor or subcontractor of any licensee or applicant for a license, who knowingly provides to any licensee, applicant, contractor, or subcontractor, any components, equipment, materials, or other goods or services that relate to a licensee's or applicant's activities in this part, may not:

(1) Engage in deliberate misconduct that causes or would have caused, if not detected, a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any license issued by the Commission; or

(2) Deliberately submit to the NRC, a licensee, an applicant, or a licensee's or applicant's contractor or subcontractor, information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

(D) A person who violates paragraph (a)(1) or (a)(2) of this section may be subject to enforcement action in accordance with the procedures in 10 CFR part 2, subpart

(E) For the purposes of paragraph (a)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows:

(1) Would cause a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation, of any license issued by the Commission; or

(2) Constitutes a violation of a requirement, procedure, instruction, contract, purchase order, or policy of a licensee, applicant, contractor, or subcontractor.

(iv) 50.9 Completeness and accuracy of information.

(A) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.

(B) Each applicant or licensee shall notify the Commission of information identified by the applicant or licensee as having for the regulated activity a significant implication for public health and safety or common defense and security. An applicant or licensee violates this paragraph only if the applicant or licensee fails to notify the Commission of information that the

applicant or licensee has identified as having a significant implication for public health and safety or common defense and security. Notification shall be provided to the Administrator of the appropriate Regional Office within two working days of identifying the information. This requirement is not applicable to information which is already required to be provided to the Commission by other reporting or updating requirements.

Realizing the importance of public trust, and how easily it can be lost, the NRC places great importance on the completeness and accuracy in all materials submitted to them by their licensees, and this standard takes on far more importance in and issue as important as License Renewal of a trouble plagued reactor, which has such large term potential impacts on a community, public health and safety.

The Stakeholder has met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process, and hearings lay out some basic criteria that a Stakeholder must meet to have a contention accepted for further review. Section 2.309(f)(v) requires:

...a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at

hearing, together with references to the specific sources and documents on which the petitioner intends to rely to support their position on the issue.

Misrepresentation in Licensee communication and documents are very serious violations of NRC Rules and Regulations. Further, the very principals of NRC's enforcement policy make it abundantly clear that significant violations of the 10 CFR rules and regulations can be subject to license suspension and/or termination:

(v) NRC Enforcement Policy Excerpts

The primary purpose of the NRC's Enforcement Policy is to support the NRC's overall safety mission in protecting the public health and safety and the environment. Consistent with that purpose, the policy endeavors to:

(A) Deter noncompliance by emphasizing the importance of compliance with NRC requirements,

(B) Encourage prompt identification and prompt, comprehensive correction of violations of NRC requirements.

Therefore, licensees, contractors, and their employees who do not achieve the high standard of compliance which the NRC expects may be subject to enforcement sanctions. Each enforcement action is dependent on the circumstances of the case. However, in no case will licensees who cannot achieve and maintain adequate levels of safety be permitted to continue to conduct licensed activities.

Herein, the Stakeholders are raising very troubling issues of both fact and law. The Applicant, at best, has made a critical error which should cause the NRC to dismiss the LRA. At worst, the Applicant, which we believe, purposely attempted to omit facts, thereby misrepresenting its plan to the NRC and the public, as relates to refurbishment during the proposed 20 year new superseding license. The undersigned therefore respectfully request that the Applicant's LRA be denied due to the fatal errors in the same, and that criminal sanctions be brought against senior management of Entergy.

Contention 58- Environmental Effects and Cascading Consequences on the Aging structures, deteriorated conditions and compromised systems, of a Significant Aerial Accident or Terrorist Attack On Aging Indian Point Nuclear Reactors are not considered in the LRA for IP3 LLC.

This Contention is written in honor of the brave men and women who gave their lives in the World Trade Center, American Airlines Flight 11, American Airlines Flight 77, United Airlines Flight 175, United Airlines Flight 93 and the Pentagon.

Stakeholders claim that the environmental effects and cascading consequences on the aging structures, deteriorated conditions and compromised systems, as a result of a aerial accident or terrorist attack on Indian Point Nuclear Plant are not considered in the LRA for IP3. NRC can claim that the Evacuation and Security

plans for Indian Point are outside of the scope of the EIS, but what is not out of the scope, is the environmental impacts should those components and systems fail.

On September 11th, 2001 America experienced the darkest day in our nation's history when two planes filled with terrorists flew into the World Trade Center in New York, New York.

> **2996 brave souls woke up to a bright beautiful sunny fall day, not knowing that in a few scant hours they would become the faces etched into our souls, the victims never forgotten, the heroes remembered and honored each and every year as America remembers our darkest hour. The lives of every American were changed that day, the destiny and direction of our nation changed forever. We were attacked on our home soil, the sacred lands of America invaded by radical terrorist bent on forcing their evil will upon a free people, using fear, intimidation and despicable terrorist's attacks to bring America to its knees.**

One of the hijacked planes used the Hudson River as a guide, flew directly past the twin domes of the Indian Point Reactors. Notably, the 9/11 Commission learned that the original plan for a terrorist spectacular was for a larger strike, using more planes, and including an attack on nuclear power plants. In an Al-Jazeera broadcast in 2002, one of the planners of 9/11 said that a nuclear plant was the initial target considered.

**We also know from the 9/11 Commission's investigation that, even after the plot was scaled down, when Mohammed Atta was conducting his surveillance flights he spotted a nuclear power plant (unidentified by name, but obviously the Indian Point nuclear power plant) and came close to redirecting the strike. National Research Council analyses and post-9/11 intelligence have also indicated that the U.S. nuclear infrastructure is viewed as an alluring target for a future terrorist spectacular. As the Chairman of the National Intelligence Council stated in 2004, nuclear power plants "are high on Al Qaeda's targeting list," adding that the methods of Al Qaeda and other terrorist groups may be "evolving."*(Council on Intelligent Energy & Conservation Policy (CIECP) comments to proposed rule 10 CFR Parts 50,72 nd 73, regarding power reactor security requirements at Licensed Nucelar Facilities, March 27, 2007 Re: Proposed Rule: Power Reactor Security Requirements (RIN 3150-AG63)*

The nuclear industry, NEI and the NRC use a statistical analysis to justify eliminating the environmental effects of a terrorist attack from review and consideration in Entergy's License Renewal Applications for IP2 and IP3. Despite the ruling in Diablo Canyon's "Mother's For Peace" case the Ninth Circuit Court wherein it was ordered that the effects of a terrorist attack are to be included in the Environmental Review required by NRC regulation *10CFR 51.53* to fulfill the NRC's NEPA requirements. However, the NRC has decided to allow industry financial concerns to over ride the Agency's singular and most important goal, the protection of human health and the environment. That is a decision that New

Yorkers cannot and will not abide by...we have been attacked, we know the risks are real. Even though since 9/11 an entire cabinet level department has been created and billions of tax payer dollars are being spent on Homeland Security to protect against terrorism, the NRC would have us believe there is no risk that Indian Point's twin reactors could be attacked.

The problem is, statistics, risk modeling analysis worked out on some computer do not reflect the reality that is life. As those towers came down, as New Yorkers and citizens from around the world lost their lives in the blink of and eye, NRC's assurances that and attack on a nuclear reactor were so remote as to almost not exist rings falsely in our ears.

We, the citizens of New York know better than any one that terrorists can plan, mount and carry out a successful attack on a target within the borders of the United States of America, we learned first hand how horrendous the aftermath of such an attack can be. We do not accept NRC's false assurances that a pathetic DBT, and a poorly trained private security force can keep us safe. The costs associated with the aftermath of 9/11 are far to high to count, the loss of human life far to priceless to put a dollar value on. We can replace the energy Indian Point produces, but not the lives that would be lost in the aftermath of a major plane crash, or a successful terrorist attack on land, sea or from the air on the facility.

So, in honor of those fallen heroes, we the citizens of the Hudson River Valley living within 50 miles of Indian Point raise our voices as one in demanding that the environmental costs associated with a significant radiological event or terrorist attack be included in Entergy's License Renewal Application process for Indian Point Reactors Two and Three as was ordered by the Ninth Circuit Court of Appeals in the Diablo Canyon "Mothers For Peace" ruling.

6. **As stakeholders, petitioners, and property owners living within 3, 10 and 50 miles of the Indian Point facility owned by two unique and separately owned Entergy Limited Liability Corporations (IP2 LLC and IP3 LLC) we are extremely concerned about the potential effects of any incident at the Indian Point Energy Center Site that could result in off site release of radioactive contaminants.**

7. **The National Environmental Policy Act (NEPA) requires the NRC to require and environmental study of the effects of given events in evaluating a licensing request on the part of their licensees. The preamble of this act reads in part:**

> ***"To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and***

biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation..."

The law applies specifically to federal agencies and the programs they fund and/or regulate. Essentially it requires that, prior to taking any "major" or "significant" action, the agency must consider the environmental impacts of that action.

8. **Entergy's License Renewal Application (LRA) for IP3 and the 20 year period of additional reactor operation it represents is a "major" or "significant" event/action on the part of a Federal Agency, therefore the rules of law and procedure found in NEPA apply to this relicensing process. NRC as and agency has accepted the reality that NEPA applies to many of the actions they take as and agency as is witnessed by their own regulation *10CFR 51.53* which was created as the NRC implementing criteria for their agency's responsibilities in abiding by the laws and constraints found in NEPA.**

9. **The action forcing provision of the NEPA law requires an Environmental Impact Statement (EIS) to be written, which outlines the risks, and the costs to human health and the environment, should that risk become a reality for all major federal actions which may have a significant impact on the environment. Further, the requirements of NEPA state that the agency (in this case, NRC) must involve the public by giving them notice and allowing**

them to comment on the proposal. The only exception is if the proposal falls within a previously-established "Categorical Exclusion" which is a category of actions that generally are not likely to have significant impacts. In such rare cases neither an EA nor an EIS needs to be prepared so long as the proposed action does not have any unusual characteristics that create potential for risk significant impacts.

Even if the relicensing of IP2 fell into this "Categorical Exclusion", it would still require an EIS by virtual of the unusual characteristics of nuclear reactors that raise the potential for risk significant impacts.

10. The NRC in numerous licensing activities involving nuclear facilities, specifically in relicensing actions, has wrongfully attempted to narrow the scope of the EIS. Specifically, the NRC has attempted to remove from inclusion in the EIS some crucial risks and the costs of any aftermath of such events.

    A) The aftermath and significant impacts on the environment should a successful terrorist attack occur at the Indian Point Energy Facility located in Buchanan, New York. NRC wants to rely upon best estimate modeling by the self vested nuclear industry to claim the likelihood of a terrorist attack is all but impossible.

As citizens living in New York know, the hallow land at Ground Zero acts as a constant reminder that terrorists can and will attack at any given time, and can plan, mount, launch and successfully carry out a successful attack on US infrastructure targets. The NRC cannot refute the very real fact that a large commercial aircraft commandeered by terrorists flew right past the twin domes of Indian Point on September 11th, 2001 on its journey to crash into the Twin Towers in Manhattan.

> **The aftermath and significant impacts on the environment should the Emergency Evacuation Plan for Indian Point fail to function as envisioned in the case of a significant incident or attack involving off site release of radioactive contaminants occur should be a part of the EIS for IP3's LRA. The fact that the Emergency plan is a living fluid document is NOT THE ISSUE, the issue is what happens, what are the environmental costs if the plan does not work, or function as envisioned, as was/is the case in the aftermath of Hurricane Katrina. See for example the Witt Report. We are not saying the Emergency Plan itself is in scope, but the aftermath of its failure and/or non workability are within scope of this process under the rules and guidance of NEPA.**

The aftermath should the NRC's DBT, which dictates the security requirements and types of events that Indian Point must be capable of defending against in the case of a security breach of any type, including but not limited to

A) a significant nuclear incident leading to a major release of radioactive contaminants,

B) a terrorist attack, or

C) a successful action by malcontent or sabotage is also within scope.

The NRC may wish to remove security from the scope of this hearing, but NEPA demands that the possible failure of those systems or programs, such as security, and the environmental costs/impacts of their failure are within scope. The voluminous number of security breaches which have occurred at critical infrastructure, including nuclear weapons and power facilities after 9/11 (such as the 16 foreign-born construction workers who were able to gain access to the Y-12 nuclear weapons plant with falsified documentation) demonstrates that nuclear "insiders" must be deemed potential active participants in an attack.

In addition Indian Point is vulnerable to acts of sabotage against off-site power transmission, as was evidenced during the 2003 blackout which struck the Northeast. Various computer systems, at Indian Point, had to be removed from service, including the Critical Function Monitoring System, the Local Area Network, the Safety Assessment System/Emergency Data Display System, the Digital Radiation Monitoring System and the Safety Assessment System.

Again, the contents of the DBT, nor the fact that said DBT is a living, constantly changing document, are not the issue nor focus of NEPA and its

requirements, but instead what is at issue, is the potential aftermath and its environmental costs and impacts, if said DBT is found to be inadequate in scope and design.

These three examples are given, as they each would play a part in the aftermath of a terrorist attack at the Indian Point Energy Center located in Buchanan, New York.

NEPA's intent and purpose is not in weighing the odds of and event occurring, but instead is intended to measure the risks and costs to the environment should such and event occur. In ***San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1028 (9th Cir. 2006)*** **the courts Memorandum and Order in part states:**

> ***NRC's "categorical refusal to consider the environmental effects of a terrorist attack" in this licensing proceeding was unreasonable under the National Environmental Policy Act (NEPA).***

It is abundantly clear in the Ninth District Court's ruling, that the odds of a given event are not at issue, but instead the issue is the effects such a postulated event or event would have on the environment. The Ninth Circuit Court Order made it abundantly clear that the NRC must take into consideration the environmental effects of a successful terrorist attack. The NRC had wrongfully attempted to narrow the scope of what will be included within their review based on the NRC's best guess estimates on the odds of such an event occurring.

It is pointed out here, large and small, that there have been over 10,000 terrorists events around the world since September 11, 2001. Though most of these attacks were minor in scale and/or thwarted by authorities, the number of attacks speaks volumes. The risk of a terrorist attack on a nuclear reactor site is a very real possibility. This has been made abundantly clear in light of two recent episodes, one here in America, and one in Brittain involving reactor employees, and homemade bombs, one of which almost made it onto the Palo Verde reactor site.

NEPA requires NRC and their licensee to answer the question, what are the environmental costs of a successful terrorist attack on a Nuclear Reactor site? Such postulated events should include, but not be limited to, evaluation of the risks associated with attacking various components of the facility independently and jointly, including for instance the reactor itself, the control room, the spent fuel pools, and the water intake and/or discharge channel, and the attack scenarios should include the attacking force of 9/11, which means scenarios and their aftermaths should include an attacking force of no less than 18 terrorists, the potential use of up to four large commercial airplanes.

Further, attacks should include use of known terrorists weapons of choice which include large vehicle bombs (such as the one used in the Oklahoma City Bombing orchestrated by home grown terrorist Timothy McVay), armor piercing munitions (used for instance by LA gangs and drug cartels), Shoulder launched rockets and grenades, and Semi-Automatic 50 Caliber Rifles (which can be accurate in hitting a

target such as a guard tower from up to one mile away, and capable of doing extensive damage from a distance of up to four miles (if successfully hitting a target), and mortars.

Sniper/Anti-Materiel Rifle: 53 This weapon was developed by the U.S. military (M82A1) in the 1980s to destroy jeeps, tanks, personnel carriers, and other vehicles. The 28 lb. (12.7 kg) weapon saw extensive use in the Persian Gulf War where a single soldier could disable multiple vehicles in a matter of seconds. It fires 50 caliber (0.50 in [1.27 cm] diameter) ammunition and is considered one of the most destructive and powerful weapons legally available in the United States. The price of this weapon can range from $4,000 to $7,000.

This semi-automatic weapon can hit targets accurately one mile (1.60 km) away and can inflict effective damage to targets four miles (6.44 km) away (that is, if the round strikes the target). It can also fire specialized ammunition capable of piercing several inches of metal, exploding on impact, or providing tracers for accurate night shooting. In 1999, GAO investigators noted criminal misuse of 50 caliber weapons in connection with known domestic and international terrorist organizations,

Publicly available sources contain significant weapon capability information:

– U.S. Army's Field Manual FM 3-06.11 [B-1], Combined Arms Operations in Urban Terrain . Chapter 7 of this document is particularly useful and contains weapon penetration information. A wide selection of Army Field Manuals are publicly available for reference and download at www.adtdl.army.mil .

– The Worldwide Equipment Guide [B-2] serves as an interim guide until the publication of Army Field Manual FM 100-65, Capabilities-Based Opposing Force: Worldwide Equipment Guide is published. The Worldwide Equipment Guide is available for reference or download at www.fas.org/man/dod-101/sys/land/row/weg.pdf.

Rocket Propelled Grenade Launcher: The RPG-7 is a very simple and functional weapon. It is a shoulder-fired, muzzle-loaded grenade launcher that launches a variety of fin-stabilized, oversized grenades from a 40 mm (1.57 in.) tube. It is effective against fixed emplacements, vehicles like tanks, and personnel. Its capability is dependent upon the type of grenade used. Using antitank grenades, its effective range is 500 m (0.31 mi) when used against a fixed target and 300 m (0.19 mi) when fired at a moving target. Its maximum range is 920 m (0.57 mi), at which point the round self-destructs after its 4.5-second flight. The antitank round has a lethal bursting radius of 4 m (13.12 ft) when used on an area target. Using an antipersonnel grenade, the RPG-7 can be effective at 1100 m (0.6835 mi). A trained two-man team can fire 4–6 rounds per minute. The weapon is light enough to be carried and fired by a single individual.

Indian Point is vulnerable to water born attacks and aerial assaults. A meltdown can be triggered even at a scrammed reactor if cooling is obstructed. Water intake is also essential to the proper function of spent fuel pools. Yet at certain nuclear plants, cooling systems may be highly vulnerable. At both Indian Point and Millstone Power Station, in particular, water intake pipes have been identified by engineering experts as exposed and susceptible to waterborne sabotage.

In March 2005, a joint FBI and Department of Homeland Security assessment stated that commercial airlines are "likely to remain a target and a platform for terrorists" and that "the largely unregulated" area of general aviation (which includes corporate jets, private airplanes, cargo planes, and chartered flights) remains especially vulnerable. The assessment further noted that Al Qaeda has "considered the use of helicopters as an alternative to recruiting operatives for fixed-wing operations," adding that the maneuverability and "non-threatening appearance" of helicopters, even when flying at low altitudes, makes them "attractive targets for use during suicide attacks or as a medium for the spraying of toxins on targets below."

The vulnerability of nuclear power plants to malevolent airborne attack is detailed extensively in the Petition filed by the National Whistleblower Center and Randy Robarge in 2002 pursuant to *10 CFR Sec. 2.206*. A number of studies of the issue are also reviewed in Appendix A to these Comments. The particular vulnerability of

nuclear spent fuel pools to this kind of attack is detailed in the January 2003 report of Dr. Gordon Thompson, director of the Institute for Resource and Security Studies entitled "Robust Storage of Spent Nuclear Fuel: A Neglected Issue of Homeland Security" and in the findings of a multi-institution team study led by Frank N. Von Hippel, a physicist and co-director of the Program on Science and Global Security at Princeton University and published in the spring 2003 edition of the Princeton journal Science and Global Security under the title "Reducing the Hazards from Stored Spent Power-Reactor Fuel in the United States." It is worthy of note that, even post-9/11, general aviation aircraft have circled or flown closely over commercial nuclear facilities without military interception.

NRC regulation *10CFR 51.53* which is the implementation and enforcement device created by the NRC to abide by the terms and regulations of NEPA demands that the environmental costs of ALL POTENTIAL AND/OR POSTULATED RISKS associated with a major agency action be considered in a Environmental Impact Statement, and further requires that citizens in the potentially affected community be given a chance to have public input into the process and creation of said EIS.

Further, a recent Ninth District Circuit Court Decision in *San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1028 (9th Cir. 2006)* we find guidance on the issue at hand in the courts Memorandum and Order in which they state unequivocally:

NRC's "categorical refusal to consider the environmental effects of a terrorist attack" in this licensing proceeding was unreasonable under the National Environmental Policy Act (NEPA).

These two points should be sufficient to prove that this contention is within scope of the process. However, we go further in pointing out that the NRC has provided its own "*in agency precedent*" to include the potential effects to the environment should there be a successful terrorist attack on a NRC licensed facility. In the license review of an application from Pa'ina Hawaii, LLC., a Hawaiian-owned company, to build and operate an underwater pool-type commercial irradiator at a location near Honolulu International Airport, the NRC staff decided, of their own accord, to include and review the potential of a terrorist attack on the facility, and the resulting environmental effects should a terrorist attack be successfully launched on said facility during its period as a licensed NRC site.

NRC has both a legal and moral responsibility to treat all Stakeholders in a fair and equal fashion, in all regions of the country. The NRC has established a precedent of including the environmental effects of a terrorist attack on a Licensee site as a part of the EIS in the license renewal process. A Ninth Circuit Court Decision instructed and ordered the NRC to include as a part of the EIS the environmental effects of a successful terrorist attack. The NRC is steadfastly trying to avoid this reality, knowing that making such information public will kill the Nuclear Renaissance, as no American city would be willing to play host to such an attractive target that is

attacked would create such devastating impacts on human health and the environment.

It is clear from the presentation of facts in this document that said contention is within the scope, and deserving of a closer review by the board.

Entergy is of the opinion that they are not required to include as a part of their LRA for IP3 the environmental effects of a successful terrorist attack on the Indian Point facility. NRC have exhibited a great reluctance to abide by the legal responsibilities laid out in NEPA, and the NRC's own regulation *10CFR 51.53*, as is witnessed by a review of the 48 LRA's that precede the applications for IP2 LLC and IP3 LLC.

Although the commercial interests of the nuclear industry are of valid concern to nuclear utilities and the NEI; they should not be of concern to the NRC. There is no justification for jeopardizing national security and the health and safety of the public and violating NEPA - even to the smallest degree - to safeguard corporate profits.

The Ninth District Court decision, coupled with the NRC's own precedent set in the licensing process for the Irradiation Facility in Hawaii shows there are material issues of both the facts and laws presented in this contention. The Stakeholders of the host community surrounding Indian Point, hold a very different opinion on these facts than does the NRC. The attacks on our sovereign soil here in New York

have shown us, proved to us that a terrorist attack is possible, and worthy of inclusion in the EIS for this license renewal application.

Intervener has met the minimal requirements of the 10 CFR rules and regulations in presenting this contention in a concise statement of the facts adequate to establish that said contention is entitled to a further and complete review of the issues contained herein. It is pointed out that the rules governing the license renewal process, and hearings lay out some basic criteria that a stakeholder must meet to have a contention accepted for further review:

> ***Section 2.309(f)(v) requires "a concise statement of the alleged facts or expert opinion which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the H petitioner intends to rely to support its position on the issue."***

Additionally, it is pointed out that the rules and regulations dealing with hearings and contentions accepted therein goes further to define specifically the minimum burden of proof necessary to have a contention accepted for further review and scrutiny:

> ***An Intervener is not required to prove its case at the contention filing stage: "the factual support necessary to show that a genuine dispute exists need not be***

in affidavit or formal evidentiary form and need not be of the quality as that is necessary to withstand a summary disposition motion." Statement of Policy on Conduct of Adjudicatory Proceedings, 48 N.R.C. 18, 22 n.1 (1998), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989). Rather, petitioner must make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate." In Gulf States Utilities Co., 40 NRC 43, 51 (1994), citing, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, Final Rule, 54 F.R. 33168, 33171 (Aug. 11, 1989).

It is clear here, that this contention more than meets the minimal standards necessary for acceptance of this contention. The petitioner in this case has made "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate."

Contention Raises a Material Matter of Fact or Law

6. **NRC and PG&E refused to consider the effects on the environment in the case of a successful terrorist attack on the proposed Spent Fuel Facility at Diablo Canyon.**
7. **Mother's For Peace successfully litigated, and the Ninth Circuit Court handed down a Memorandum and Order that effectively and concretely established law stating that review of the environmental effects in the case of**

a terrorist attack are to be included in the EIS in a licensing procedure and/application.

8. NRC subsequently implemented a rewrite of the EIS in that licensing review to include (however inadequately) a review of the issues.
9. NRC set agency precedent when it voluntarily included the environmental effects of a possible terrorist attack in the EIS for the licensing of a irradiator facility in Hawaii.
10. FUSE, and the Stakeholders of the host community claim that NEPA's intent is clear, and that all possible risks and incidents and their potential effects on the environment must be reviewed and included in the scope and creation of the EIS for the IP2 LLC LAR.

The NRC cannot approve the Applicant's LRA because it does not address the realistic environmental risk posed by a terrorist attack. The Stakeholders have raised a material matter of fact or law, thus meeting the burden for further review. A material issue of fact that the DOE agrees with as is witnessed in Exhibit A, attached hereto.

Contention 58-The radiological discharges, both legal and illegal, known and unknown from Indian Point 3, LLC are causing elevated cancer rates in the 50 mile EPZ which includes portions of Connecticut, New Jersey, and New York. Said elevated cancers are causing premature deaths, painful mastectomies in women who are getting non-hereditary breast cancers, and our children are being struck down

with leukemia, as a result of Indian Point 3 LLC operations. The death of just one child in the name of Indian Point License Renewal is unacceptable, elevated cancer rates, especially breast cancer is and unacceptable price to ask any community to pay in the name of "National Interests" and NEI's dearly beloved Nuclear Renaissance.

1. The NRC, NEI, DOE and Entergy all know, and tacitly admit that some deaths, some cancers will occur as a result of the operation of a nuclear power plant. The one cancer they readily concede some responsibility for is thyroid cancer, justifying the risk, and elevated number of cases of thyroid cancers with the reasoning that thyroid cancer is curable. Sure those who have gone through the process of being cured have a far different and much less cavalier opinion on the subject. Further, Entergy does not have in place a mechanism to cover the medical costs incurred by those who incur these cancers that are known to be caused by the on going operation of their reactor.

2. For decades, DOE spent hundreds of millions of dollars on attorneys, rather than admit their employees working in and around nuclear facilities such as Hanford, Oak Ridge National Laboratory, the Paducah Kentucky and Portsmouth Ohio Gaseous Diffusion Plants cancers were being caused by their worked environment, by their association with the supposed "friendly atom". It literally took and act of Congress to get these victims of radiological abuse the help they so desperately needed and deserved, and yet in 2007 the DOE and their carefully designed hearing boards are trying to deny most victims of NUCLEAR CANCER

their rightful benefits, including in far to many cases, death benefits to surviving family members who lost loved ones in the our nation's desire to be number one, to be the king pin Nuclear Nation.

3. NRC, DOE, NEI and others who have a vested interest seem willing to do anything within their power to debunk any study that attributes elevated cancer risks to ones proximity to a nuclear facility, or nuclear reactor such as Entergy's ailing and failing Indian Point facility. One case in point, is the Tooth Fairy Project, which collects baby teeth, checking them for elevated levels of strontium 90. Strontium 90 is a known causal contributor to leukemia. Leukemia is a very radiosensitive cancer, and cases of leukemia in children around nuclear power plants are elevated, as a recent study in Germany attests to. It appears, that the nuclear industry, Entergy will tell us that we have their sympathy, and then blame said cancer on anything and everything else but their nuclear facility, including fallout from early nuclear weapons testing (referring to the recent proof that Indian Point is leaking strontium 90 into the environment), or claim it is simply a compilation of environmental contaminants. What they will not tell you, is early evidence suggests that cancer rates around closed and decommissioned nuclear facilities drops dramatically. As illustration, shared below is an excerpt from BAKER P.J. & HOEL D.G. (2007)

European Journal of Cancer Care:

Meta-analysis of standardized incidence and mortality rates of childhood leukemia in proximity to nuclear facilities.

The meta-analysis combined and statistically analyzed studies of childhood leukemia and nuclear facilities. Focus was on studies that calculated standardized rates for individual facilities. Due to variability between study designs, eight separate analyses were performed stratified by age and zone. One hundred and thirty-six sites were used in at least one analysis. Unadjusted, fixed effects and random effects models were used. Meta rates greater than one were found in all models at all stratification levels often achieving statistical significance. Caution must be used when interpreting these results. The meta-analysis was able to show an increase in childhood leukemia near nuclear facilities, but does not support a hypothesis to explain the excess. Each type of model utilized has limitations. Fixed effects models give greater weight to larger studies; however, population density may be a risk factor. Random effects models give greater weight to smaller studies that may be more likely to be affected by publication bias. A limitation of the overall study design is that standardized rates must be available for individual sites which led to exclusion of studies that only calculated rates for multiple sites and those that presented other statistical methods. Further, dose-response studies do not support excess rates found near nuclear facilities. However, it cannot be ignored that the majority of studies have found elevated rates, although not usually statistically significant.

Keywords:

childhood leukemia, nuclear, radiation, meta-analysis.

4. In a study conducted by Dr Louise Parker of the Royal Victoria Infirmary it was suggested that workers at the Sellafield nuclear reprocessing plant in Cumbria had higher than average chances of fathering a stillborn child, or one

born with defects. Unfortunately, the United States government and the Nuclear Industry have been loath to fund studies that could effectively measure the cancer and health risks of both nuclear workers, and those living near nuclear reactors here in America. However, Dr Louise Parkers study suggests that Entergy could defacto be considered a Nuclear Abortion Machine. Without adequate funding, without a full range of health studies, citizens in Connecticut, New Jersey, and New York who live within the Peak Fatality Zone (PFZ) of Indian Point do not know with certainty what caused their family member's breast cancer, do not know what caused their child's leukemia, or their father's thyroid cancer. Young women, dealing with the tragedy of their stillborn child can only grieve and wonder what went wrong, and they deserve to know the truth, should be told if their close proximity to Indian Point contributed to, or elevated their risk of giving birth to a stillborn child. Anecdotal evidence suggests strongly, that in far too many cases, the causal agent for breast cancers, cases of leukemia, stillborn children, assorted birth defects, other cancers including thyroid cancer are to some extent was, is and will continue to be their close location to a nuclear reactor, or nuclear processing plant. The antidotal evidence strongly suggests that you close the nuclear reactor, and instances of these horrid health issues go down. Let us not kid ourselves, the commercial nuclear industry is incestuously tied to the military nuclear industry, and the crimes of one, are the crimes of the other.

"After 15 years of investigating, I have concluded that the United States government's atomic weapons industry knowingly and recklessly exposed millions of people to dangerous levels of radiation.

"Nothing in our past compared to the official deceit and lying that took place in order to protect the nuclear industry. In the name of national security, politicians and bureaucrats ran roughshod over democracy and morality. Ultimately, the Cold Warriors were willing to sacrifice their own people in their zeal to beat the Russians."

—Former Secretary of the Interior Stewart Udall

5. The government for supposed National Security interests does not want citizens knowing the full ugly truth of civilian and military nuclear effects on the health and safety of America's citizens. They have for decades known there were horrid health issues associated with the use and deployment of nuclear, either as weapons, or a producer of energy. They though decided to hide these truths, and justify their decision by claiming it is all in the nations best interests, all in the best interest of National Security. Problem is, over the decades, some truths, some hints of the dangerous health effects have slipped out:

- **Nuclear Murder**

  America's Atomic War Against Its Citizens and Why It's Not Over Yet

by David Proctor

Since 1945, high officials of the United States government have maimed and killed hundreds of thousands of their own people, first while they spent $5.5 trillion to test and maintain nuclear weapons, then as they spent billions to support and under-regulate nuclear power plants. To cover their actions, the officials—and those who succeeded them—have for decades lied to the public and perjured themselves in court about the amount of radiation released and its effect on the millions of people exposed to it.

Now, that same government wants to transport hundreds of tons of nuclear waste through 43 states, including Idaho, on inadequate rail lines and highways past 138 million people to be stored in containers of unknown longevity for hundreds of thousands of years in geologically unstable formations in New Mexico and Nevada.

And once again, officials insist it will all be perfectly safe.

The government has known for at least 70 years that nuclear energy—regardless of its form—is deadly to the human body.

The first publicized case of radiation injuries in America was the radium-dial painters in the 1920s. These women used radium paint to put the luminous numbers on watch dials. Many wet their brushes with their mouths to make the tiny points needed for such fine work. When they began to die of cancer their successful lawsuit against the watch company in 1928 made the dangers of radiation very public.

The government also sponsored radiation experiments on animals in the 1940s, as well as follow-up studies of the Trinity test at Alamogordo, New Mexico, and the bombings of Hiroshima and Nagasaki, all in 1945.

Despite this knowledge, and America's acceptance of the Nuremberg human rights protocols, the Atomic Energy Commission, a group appointed by the president and obligated by law to protect the public, detonated more than 300 aboveground nuclear weapons at the Nevada Test Site and in the Pacific Ocean.

The blasts totaled 138,600 kilotons of explosive power, which Soviet scientist Andrei Sakharov estimated would kill as many as 2.5 million people and American Nobel laureate Linus Pauling calculated would cause 1 million seriously defective children, another 1 million embryonic and neonatal deaths, and create millions of hereditary defects.

In 1969, Dr. Ernest Sternglass traced the dramatic increases in infant deaths and childhood leukemia in upstate New York to airborne radiation from the nuclear tests. He estimated 375,000 American babies had been killed by fallout radiation between 1951 and 1966. And that didn't count the deaths caused by the Soviet Union's 715 tests.

Dr. John Gofman found that even low doses of radiation could cause cancer. In the early 1970s, when Gofman and Dr. Art Tamplin refused to keep their findings secret, they lost their research grants at DOE's Livermore National Laboratory.

6. For to many decades now, the Federal Government, the Pentagon, DOE, NRC, NEI and the entire military/commercial nuclear industry have been allowed to have the cart in front of the horse, have been allowed to deny that negative health issues are a result of one's close proximity to a nuclear installation or commercial nuclear project, then they collectively, say PROVE US WRONG. The NRC and the US EPA are sworn to protect human health and the environment, and it is time that they hold the nuclear industry accountable, time they put the

horse in front of the cart by making the entire military/commercial nuclear industry prove to the people that their industry is safe, their industry does not cause cancers, birth defects, grotesque birth defects and deformities. Entergy's Indian Point as a part of the license renewal must be ordered to conduct extensive health studies, and agree as a part of any superceding license for the site to carry out PUBLIC health and environmental monitoring during the period of license rule and decommissioning.

7. Before the NRC considers granting Entergy a new superceding license for IP2 and IP3, our communities in Connecticut, New Jersey and New York that are located in Indian Points Peak Fatality Zone deserve answers, and those answers can only be ascertained with in depth health studies funded by the NRC, Entergy, NEI and all other licensed nuclear facilities here in America. A basic cornerstone of American Democracy, a basic cornerstone of the NRC rules and regulations, is that communities are entitled to know the true risks associated with projects such as Indian Point. Those risks when it comes to issues of health and well being, those risks as related to nuclear energy's contributions to elevated cancer, birth defects, and stillborn numbers for those communities located in the Peak Fatality Zones can only be known if company's like Entergy are, as they should be, forced to prove their claim that Nuclear is vital, safe, and secure, and that burden of proof rightfully belongs in their lap, they cannot be, and should not be relicensed until a full array of health studies, including but not limited to Meta-analysis of standardized incidence and mortality rates, site specific, regional and national statistical analysis, ingestion pathway studies and analysis including plotting and sampling, dermatological and

entomological studies. Further, Entergy, NRC and the entire nuclear industry must be ordered to establish a National Registry that tracks all cancers, birth defects, stillborn births, deaths and other health issues related, directly or indirectly, to the nuclear industry can be properly tracked and mapped on a Nationwide basis.

CONCLUSION AND REQUEST FOR RELIEF

First, as requested in this document earlier, FUSE USA requests a Change Of Venue for this proceeding, based on our belief and contention that this board is, and has exhibited a pro nuclear industry bias and prejudice, and further shown an inability to be unbiased as relates to the filings and contentions of FUSE USA, and specifically, Sherwood Martinelli whom this board has barred from the proceedings, thus denying FUSE USA, and the stakeholders we represent the voice and expertise of a man who, through his selfless donation of his time, effort and money, his dedication to the task has shown the heart and soul of someone truly concerned for our community's health and well being. He understands Indian Point, has done extensive research on the issues, and knows the subject matter of our contentions better than anyone, yet for reasons FUSE USA does not necessarily agree with, he has been barred from participation. For this, what we believe to be clear and known bias, we seek a change of venue to either the IAEA or the World Court for this License Renewal Application hearing process.

Further, Entergy's application should be denied by the NRC for the reasons stated in above contentions. Alternatively, FUSE seeks protection of its interests through an Atomic Safety Licensing Board (ASLB) or other proper court of jurisdiction an Order requiring, as pre-requisite to issuance of any new superseding licenses, that Entergy cure the inadequacies in its application as described above so as to provide assurance of public health and safety, and that citizens be given adequate time to address these changes, and raise new contentions on the newly reformatted and submitted application.

Further, FUSE requests that the Board order that, if and when Entergy cures the inadequacies in its application, Entergy shall then resubmit the relevant portions of its application with appropriate notice and opportunity for adjudication by the ASLB and the parties, including the right to submit new contentions based on the new information and changes resulting from those corrections and inadequacies.

Further, FUSE seeks an order from the board disallowing any Commitments in lieu of Aging Management Plans, and moves this board to order Entergy to adequately submit for public evaluation and hearing (with new time to submit comments and contentions) a full list of ALL EXEMPTIONS, Deviations, Exclusions and other ways and means by which the facility is currently excused from 10 CFR rules and regulations, that they intend to carry over into the new superceding license, with the required safety and justification analysis on why these should be carried over, as is required in the 10 CFR rules and regulations. It is further requested, that when

said list of exemptions with justifications is submitted to this board, that stakeholders again be given adequate time to review said exemptions, and raise objections via new contentions.

Lastly, FUSE USA does herein claim as their own and supports as if fully rewritten herein any and all contentions filed by other stakeholders that are or have filed on or before December 10th, 2007 or until such time thereafter that the clock for submission of Contentions continues to run.

December 24, 2007

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We the undersigned citizens who live, work, or visit in the areas Connecticut, New Jersey and New York, within the 50 mile radius of Entergy's Peak Fatality Zone (PFZ) do herein endorse and cosign onto as interveners the Formal Request for Hearing, and Petition to Intervene (with contentions) being presented by Sherwood Martinelli, and FUSE USA.

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We hereby certify that on this 24th day of December, 2007, a copy of FUSE USA's SUPERCEDING Petition to Intervene, and Formal Request for Hearing (With Contentions in 3 parts, A, B and C) regarding the matter of Entergy 2 LLC, Entergy 3 LLC, and Entergy Nuclear Operations, Inc, by Heather Ellsworth Burns-DeMelo were sent by email, with hard copies to follow via First Class U.S. Mail postage prepaid to:

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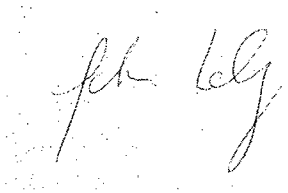
Executed in accord with 10 CFR 2.304(d)



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