

RAS E-2

DOCKETED
USNRC

February 27, 2008 (4:00pm)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative

Judges: Lawrence G. McDade, Chairman
Dr. Kaye D. Lathrop
Dr. Richard E. Wardwell

In the Matter of)	Docket Nos. 50-247 and
)	59-286-LR
ENTERGY NUCLEAR OPERATIONS, INC)	
)	ASLBP No. 07-858-03-LR
(Indian Point Nuclear Generating Units 2 and 3))	

ERRATA

STATE OF NEW YORK)
) ss
COUNTY OF ALBANY)

Sarah L. Wagner, being duly sworn, deposes and says:

1. I am legal co-counsel for Westchester Citizen's Awareness Network (WestCAN), Rockland County Conservation Association, Inc. (RCCA), Public Health and Sustainable Energy (PHASE), Sierra Club - Atlantic Chapter (Sierra Club), and New York State Assemblyman Richard L. Brodsky (hereinafter "Petitioners"). I am familiar with the facts contained herein. I submit this affidavit in support of Petitioners Reply Brief served February 15, 2008.
2. Pursuant to the Atomic Safety and Licensing Board Order dated February 1, 2008, Petitioners hereby submit a Revised Table of Contents because Petitioners have been informed that the hyper-links to the exhibits contained in the Petitioners Reply Brief sent on CD did not all work properly. Additionally, Petitioners received a request from Raymond Kuyler of Morgan, Lewis, & Bockius, LLP to clarify the exhibits referenced in the Reply Brief that were contained on the Petition filed and served December 10, 2008. Although Petitioners maintain that the Table of

TEMPLATE = SECY-021

SECY-02

Contents is clear, Petitioners now submit a revised Table of Contents to all parties with changes to Exhibits I, N, U, V, W, X, ZZ, AA, BB, CC, DD, EE, and FF. (See Appendix A).

3. Pursuant to the Atomic Safety and Licensing Board Order dated February 1, 2008, Petitioners hereby submit a Revised Table of Contents because Petitioners experienced difficulty in electronically transmitting their Reply Brief dated February 15, 2008. In addition to Petitioners service of the Reply Brief by courier, and since Petitioners were not able to electronically serve their Reply Brief by email on February 15, 2008, Petitioners sent a courtesy electronic copy of their brief to the service list approximately 52 minutes after midnight on February 16, 2008. Subsequently, Petitioners are submitting a revised Certificate of Service. (See Appendix B).
4. Petitioners further submit the following errata's to Petitioners' Reply Brief dated February 15, 2008:
 - a. Page 1, line 5, under the heading Preliminary Statement should read:
“(hereinafter “Petitioners” or “Stakeholders”).”
 - b. Page 2, line 2: insert “...(hereinafter “Entergy” or “Licensee” or “Applicant”) ...”
 - c. Page 2, line 15: insert “... “NRC” or “Staff”) by Fed Ex.
 - d. Page 3 delete “COALITION”
 - e. Page 4, line 5 should read: “...requirements imposed on the Application and...”
 - f. Page 4, line 15- 17 should read: “...the Applicant can met its statutory mandate of protecting the health and safety of the public and minimizing risk to public assets in granting the Applicant’s renewed license.

The results of this exceedingly important mantel ...”
 - g. Page 5, line 3 should read: “... on the books so that ...”

- h. Page 5, lines 3-15: strike the second and third sentences in the first full paragraph and insert; “Entergy's Program has significant safety issues unresolved. Before Entergy is relicensed, it must be in compliance with the NRC regulations. The fire protection program must comply with NRC regulations to protect the health and safety of the public during the 20 year extension period.”
- i. Page 5, line 3 should read: “... and raised in connections 5 through ...”
- j. Page 6, line 3 should read: “... on the books ...”
- k. Page 6, lines 11-15 should read: “The core and essence of license renewal is to provide confidence that the nuclear power plant is safe. The record demonstrates otherwise; if a nuclear plant that is presently deficient these issues should not be excluded from the scope of license renewal proceedings.”
- l. Page 8, lines 10-11 should read: “...repeatedly concluded that the majority of problems stem from inadequate enforcement of adequate regulations as is shown in contentions 5 through 11B.”
- m. Page 9, lines 9-10 should read: “In these cases, to bring the reactor back into compliance, it took more than a year and cost an average of nearly \$1.7 billion...”
- n. Page 10, line 3 should read: “... in an unnecessarily higher...” and strike lines 5-7.
- o. Page 13, line 18 should read: “...tests...”
- p. Page 14, line 4 should read: “..fails...”
- q. Page 15, lines 11-15 should read: “...Regulatory Commission. The NRC’s role in relicensing is to include all issues for aging nuclear plants and including all evidence regarding compliance of current regulations.”
- r. Page 15, line 19, delete all except “... basis issues.”
- s. Page 16, strike lines 1-2

- t. Page 17, line 19 should read: “When an...”
- u. Page 17, line 21 should read: “...show that at least one ...”
- v. Page 18, line 14 should read: “...grassroots environmental organizations. It is a non-profit...”
- w. Page 18, line 18 should read: “... State.”
- x. Page 21, line 10 should read: “However, it is the contention, not basis...”
- y. Page 22, line 13-17 strike the second sentence of the first full paragraph and insert: “A renewed license may be issued by the Commission, as authorized by section 54.31, if the Commission finds that there is reasonable assurance that the plant will continue to be compliant with the CLB, the Atomic Energy Act, and the Commissions regulations.”
- z. Page 37, line 4 should read: “However, as noted...”
- aa. Page 37, lines 8-9 should read: “Energy does not protect...”
- bb. Page 39, line 13 should read: “...significant issues...”
- cc. Page 40, lines 3-5 should read: “...Threat (hereinafter “DBT”) while excluded by the Commission as part of the license renewal process, the Ninth Circuit recently held that fire intentionally set must be considered as a required element of relicensing.”
- dd. Page 42, line 3 strike “Finally, the...” and insert “The...”
- ee. Page 42, lines 6-7 strike “A brief summary is provided in Attachment 1.”
- ff. Page 42, line 12 should read: “...to cover and not to exclude wind, tornados, and seismic loads.” and strike line 14 “...on faulted premises.”
- gg. Page 43, line 3 should read: “...and thus...”
- hh. Page 43, line 17 should read: “...Units can safely operate.”
- ii. Page 47, line 6 should read: “...Indian Point 2 (IP2) ...”
- jj. Page 47, line 15 should read: “...GDCs to IP2...”

- kk. Page 48, line 5 should read: "... provided sufficient information to show that genuine dispute..."
- ll. Page 48, line 8 should read: "... and therefore, the answers are without basis."
- mm. Page 51, line 1 should read: delete "Finally, the..." and insert "The"
- nn. Page 51, line 6 should read: "...that Entergy is not bound..."
- oo. Page 51, line 14 should read: "...concrete written document."
- pp. Page 52, line 4 under contention 13 should read "contains"
- qq. Page 52, line 10 under contention 13 "...relevant to the contentions."
- rr. Page 53, line should read: "... or one-time commitments that are docketed and in effect..."
- ss. Page 53, footnote 15- line 5 should read: "Aging of plant piping..."
- tt. Page 53, footnote 15- line10 should read: "The casual events were not"
- uu. Page 70, line 2 should read: "...specifically lies..."
- vv. Page 70, line 14 should read: "...was licensed."
- ww. Page 83, line 2: delete "Contention" and replace with "Exhibit"
- xx. Page 89, lines 5-10 change to: "... (See Exhibit DD).

5. Petitioners proffer definitive documentation that shows otherwise. (See Exhibit EE). First, LIC 100 is of no legal significance. (See Exhibit FF). Second, whereas an office instruction by the NRC is binding, responses to generic letters are legally binding and are enforcement."

- a. Page 90, line 19: delete "responses"
- b. Page 93, line 1 change to: "Where Entergy intends..."
- c. Page 94, line 1 change to: "Contention 29..."
- d. Page 94, lines 11-12 change to: "... is fatal to a safe transition throughout the license renewal period."

- e. Page 95, line 5 change to: "... renewal consideration."
- f. Page 96, lines 8-10 change to: "...management control program at either facility, even though Unit 3 committed to having a program in place in 1996 after being shut down for over a year and after being on the NRC's watch list."
- g. Page 98, lines 1-2 change to: "...Entergy does not deny that they may replace the reactor vessel heads during the 20 year license period, which constitutes major refurbishment."
- h. Page 99, line 14: "*Mass. v. U.S. N.R.C.*, ML071560312,
- i. Page 99, line 16 change to: "Contention 34 meets the threshold of admissibility in any of the following ways:"
- j. Page 101, Second full paragraph lines 9-19, omit all except the following: "[A]t the contention filing stage the factual support..."
- k. Page 103, line 14 change to: "CHECKWORKS"
- l. Page 104, line 2 strike "Exhibit Q" and insert "Exhibit M"
- m. Page 106, line 12 change to: "...issue. The proposed expansion..."
- n. Page 106, line 18 change to: "... publicly."
- o. Page 115, lines 13-14 change to: "(Petition at p. 293 or NRC Staff brief at p. 101).
- p. Page 116, line 3 under Contention 45 change to: "...resolved..."
- q. Page 117, 1st line under Contention 47, should read: "Entergy claims that contention 47 is based on speculation; Petitioners maintain that information from the GZA study of radiological leaks, provided as an Exhibit to Entergy's Answer, must be incorporated into the EIS."
- r. Page 118, line 3: change to "Petitioners"

- s. Page 118, lines 2-4 under Contention 48 should read: "... clean nuclear energy is; the Hudson Valley energy needs are sustainable with out Indian Point."
- t. Page 119, line 10: delete "number"
- u. Page 120, lines 5-8 should read: "Entergy only considers solar and wind options to carry based load and totally ignoresAdditionally Entergy incorrectly states that solar and wind.... Entergy's refusal ..."
- v. Page 120, lines 17—19 change to: "...Congresswoman Nita Lowey, who serves as an expert, supports Petitioners position."
- w. Page 121, lines 6-7 should read: " Entergy's conclusionary statement that alternative and sustainable energy cannot meet the needs of the region with current technology."
- x. Page 121, lines 11-13 should read: "...reasonable alternatives fails to fulfill the requirement of 10 C.F.R. Part 51 and therefore is inadequate."
- y. See changes to Exhibit M, Declaration of Ulrich Witte. (See Appendix C).
- z. See changes to Exhibit F, Declaration of Ulrich Witte. (See Appendix D).
- aa. See changes to Exhibit Q, Declaration of Ulrich Witte. (See Appendix E).

Dated: February 27, 2008

Albany, New York

Respectfully Submitted,



Sarah L. Wagner

Co-Counsel for Petitioners WestCAN et. al

APPENDIX A

REVISED TABLE OF CONTENTS

Preliminary Statement	pg.1
Procedural History	Pg 2
Background of Indian Point License Renewal Application and Contentions Raise by the Coalition Petitioners	Pg. 3
Summary of Argument	Pg. 11
Argument	Pg. 16
CONTENTION 1: 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).	Pg.24
CONTENTION # 2: The NRC routinely violates § 51.101(b) in allowing changes to the operating license be done concurrently with the renewal proceedings.	Pg.26
CONTENTION 3: The NRC violated its own regulations §51.101(b) 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), some of which do not have a direct relationship with the license.	Pg. 29
CONTENTION 4: The exemption granted by the NRC on October 4, 2007 reducing Fire Protection standards are Indian Point 3 are a violation of §51.101(b), and does not adequately protect public health and safety.	Pg. 32

<p>CONTENTION 5: The Fire Protection Program described in the Current License Basis Documents including the unlawfully approved exemptions to Appendix R, the Safety Evaluation and the amended license for Indian Point 3 fail to adequately protect the health and safety of the public, and fail to meet the requirements of 10 CFR 50 and Appendix R.</p>	<p>Pg. 36</p>
<p>CONTENTION 6: Fire Protection Design Basis Threat. The Applicant's License Renewal Application fails to meet the requirements of 10 CFR54.4 "Scope," and fails to implement the requirements of the Energy Policy Act of 2005.</p>	<p>Pg. 39</p>
<p>CONTENTION 7: Fire initiated by a light airplane strike risks penetrating vulnerable structures.</p>	<p>Pg. 40</p>
<p>CONTENTION 8: The NRC improperly granted Entergy's modified exemption request reducing fire protection standards from 1 hour to 24 minutes while deferring necessary design modifications.</p>	<p>Pg. 43</p>
<p>CONTENTION 9: In violation of promises made to Congress the NRC did not correct deficiencies in fire protection, and instead have reduced fire protection by relying on manual actions to save essential equipment.</p>	<p>Pg. 44</p>
<p>CONTENTION No. 10: (Unit 2) Cable separation for Unit 2 is noncompliant, fails to meet separation criteria and fails to meet Appendix R criteria. This has been a known issue since 1976; and again in 1984, yet remains non-compliant today.</p>	<p>Pg. 46</p>
<p>CONTENTION No. 11A (Unit 2 and Unit 3): The Fire protection program as described on page B-47 of the Appendix B of the Applicant's LRA does not include fire wrap or cable insulation as part of its aging management program.</p>	<p>Pg. 48</p>

<p>CONTENTION 11B: Environmental Impact of an increase in risk of fire damage due to degraded cable insulation is not considered thus the Applicants' LRA is incomplete and inaccurate, and the Safety Evaluation supporting the SAMA analysis is incorrect.</p>	<p>Pg. 49</p>
<p>CONTENTION 12: Entergy either does not have, or has unlawfully failed to provide the Current License Basis' (CLB) for Indian Point 2 and 3, accordingly the NRC must deny license renewal.</p>	<p>Pg. 50</p>
<p>CONTENTION 13: The LRA is incomplete and should be dismissed, because it fails to present a Time Limiting Aging Analysis and an Adequate Aging Management Plan, and instead makes vague commitments to manage the aging of the plant at uncertain dates in the future, thereby making the LRA a meaningless and voidable "agreement to agree."</p>	<p>Pg. 52</p>
<p>CONTENTION 14: 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."</p>	<p>Pg. 55</p>
<p>CONTENTION 15: Regulations provides that in the event the NRC approves the LRA, then old license is retired, and a new superseding license will be issued, as a matter of law § 54.31. Therefore all citing criteria for a new license must be fully considered including population density, emergency plans and seismology, etc.</p>	<p>Pg 56</p>
<p>CONTENTION 16: An Updated Seismic Analysis for Indian Point must be Conducted and Applicant must Demonstrate that Indian Point can avoid or mitigate a large earthquake. Indian Point Sits Nearly on Top of the Intersection of Two Major Earthquake belts.</p>	<p>Pg 61</p>
<p>CONTENTION 17: The population density within the 50 mile Ingestion Pathway EPZ of Indian Point is over 21 million, the population within in the</p>	<p>Pg 62</p>
<p>10 mile plume exposure pathway EPZ exceeds 500,000.</p>	<p>Pg 64</p>

CONTENTION 18: Emergency Plans and evacuation plans for the four counties, surrounding are inadequate to protect public health and safety, due to limited road infrastructure, increased traffic and poor communications.	Pg 85
CONTENTION: 19 Security Plans Petitioners contend that the way the force-on-force (FOF) tests are conducted do not prove that the Indian Point security force is capable to defend the facility against a credible terrorist attack or sabotage. The LRA does not address how Security, as required under section 10 C.F.R. 100.12(f) and 10 C.F.R. Part 73, will be managed during the proposed additional 20 years of operation against sabotage/terrorist forces with increasing access to sophisticated and advance weapons.	Pg 67
CONTENTION 20: The LRA does not satisfy the NRC's underlying mandate of Reasonable Assurance of Adequate Protection of Public Health and Safety.	Pg 68
CONTENTION 21 was omitted from the Petition.	Pg. 69
CONTENTION 22-25 General Design Criteria	Pg 69
CONTENTION 23	Pg 83
CONTENTION 24	Pg. 85
CONTENTION 25	Pg. 88
CONTENTION 26 was omitted from the Petition.	Pg. 89
CONTENTION 27: The LRA for Indian Point 2 & Indian Point 3 is insufficient in managing the environmental Equipment Qualification required by federal rules mandated that are required to mitigate numerous design basis accidents to avoid a reactor core melt.	Pg 90

CONTENTIONS 28-32 The License'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, and failure of the Design Control Program, and as a result invalidate statements crediting these programs that are relied upon in the LRA.	Pg. 91
CONTENTION 30	Pg. 94
CONTENTION 31	Pg. 95
CONTENTION 32	Pg. 96
CONTENTION 33: The EIS Supplemental Site Specific Report of the LRA is misleading and incomplete because it fails to include refurbishment plans meeting the mandates of NEPA, 10 C.F.R. 51.53 post-construction environmental reports and of 10 C.F.R. 51.21.	Pg. 97
CONTENTION 34: Petitioners contend that accidents involving the breakdown of certain in scope parts, components and systems are not adequately addressed Entergy's LRA for Indian Point 2 and Indian Point 3.	Pg 98
CONTENTION 35: Withdrawn	Pg. 102
CONTENTION 36: Flow Accelerated Corrosion (FAC)	Pg. 103
CONTENTION 37 Withdrawn.	Pg. 105
CONTENTION 38: Microbial action potentially threatens all the stainless steel components, pipes, filters and valves at Indian Point (issue 99 of EIS).	Pg. 105
CONTENTION 39 Withdrawn.	Pg. 106
CONTENTION 40 Withdrawn because it is a duplicate of Contention 14.	Pg. 106

CONTENTION 41: Entergy's high level, long-term or permanent, nuclear waste dump on the bank of the Hudson River.	Pg. 106
CONTENTION 42: Dry Cask Storage (Issue 83) The Independent Spent Fuel Storage Installation (SFSI) being constructed at Indian Point for the purpose of holding the overflow of nuclear waste on site for decades, and probably more than a century, must be fully delineated and addressed in the aging management plan and, moreover constitutes an independent licensing issue.	Pg. 108
CONTENTION 43: The closure of Barnwell will turn Indian Point into a low level radioactive waste storage facility, a reality the GEIS utterly fails to address, and a fact which warrants independent application with public comment and regulatory review.	Pg. 111
CONTENTION 44: The Decommissioning Trust Fund is 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.	Pg. 113
CONTENTION 45: Non-Compliance with NYS DEC Law – Closed Cycle Cooling “Best Technology Available” Surface Water Quality, Hydrology and Use (for all plants).	Pg. 116
CONTENTION 46: Omitted	Pg. 117
CONTENTION 47: Cancer rates surrounding the plant: The Environmental Report Fails to Consider the Higher than Average Cancer Rates and Other Health Impacts in Four Counties Surrounding Indian Point.	Pg. 117
CONTENTION 48: Environmental Justice - Corporate Welfare	Pg. 118
CONTENTION 49: Global warming- Withdrawn	Pg. 119

CONTENTION 50: Replacement Options: Stakeholders contend that the energy produced by Indian Point can be replaced without disruptions as the plants reach the expiration dates of their original licenses.	Pg. 120
CONTENTION 50-1: Failure to Address Environmental Impacts of Intentional Attacks & Airborne Threats	Pg. 121
CONTENTION 51: Inability to Access Proprietary Documents Impedes Adequate Review of Energy Application for License Renewal of IP2 LLC and IP3 LLC.	Pg. 122

REVISED EXHIBIT TABLE OF CONTENTS

Exhibit And References	Title	File name on CD	Reply Brief page number
Reference 1	Objection to Fire Protection Exemption	Fire Protection Petition 12/3/07	Pg. 5
Reference 2	GAO Report "Nuclear Regulation: NRC Needs to More Aggressively and Comprehensively Resolve Issues Related to the Davis-Besse Nuclear Power Plant's Shutdown" , May 2004	GAO Report May 2004 lack of oversight.pdf	Pg. 6
Reference 3	Comments, pointing out that regulations governing design of nuclear power plants must minimize danger to life and property, regarding Proposed new Subpart K—"Additional requirements" and proposed 10 Part...	Dec 17 formal comments.pdf	Pg. 8
Reference 4	Testimony Before the Subcommittee on Clean Air, Climate Change, and Nuclear Safety, Committee on Environment and Public Works, U.S. Senate United States Government Accountability Office GAO May 26, 2005 NUCLEAR REGULATORY COMMISSION Challenges Facing NRC in Effectively Carrying Out Its Mission	<u>GAOmission challenge.pdf</u>	Pg. 11
Reference 5	Office of Inspector General, January 22, 2008, NRC's Oversight of Hemyc Fire Barriers	<u>OIG fire hemyc jan 2008.pdf</u>	Pg. 12
Reference 6	Requests to Entergy and NRC 6/29/07, 7/5/07/and 9/4/07	<u>Reference 6 Request letters.pdf</u>	Pg. 123
Exhibit A	Declaration of Richard L. Brodsky	<u>Ex A Brodsky.pdf</u>	Pg. 17
Exhibit B	Declarations of Allegra Dengler, Joanne Steele, John Gebhards, Diana Krautter, George Klein,	<u>DC_250521.pdf</u>	Pg. 18
Exhibit C	GAO Report to Congress 02-48 dated December 3, 2001	<u>GAO 02-48 December 2001.pdf</u>	Pg. 31
Exhibit D	Power Authority of the State of New York and the Consolidated Edison Company, "Indian Point Probabilistic Safety Study," Spring 1982. 3 Nuclear Regulatory Commission, NUREG/CR-2859, "Evaluation of Aircraft Crash Hazards Analyses for Nuclear Power Plants," June 1982	Two Parts: <u>19820300-ip- probabilistic-risk- assessment-1-of-2.pdf</u> <u>19820300-ip- probabilistic-risk- assessment-2-of-2.pdf</u>	Pg.41
Exhibit E	Audit of NRC's License Renewal Program OIG-07-A-15 September 6, 2007	<u>IG report on License Renewal.pdf</u>	Pg.54

Exhibit F	Declaration of Ulrich Witte “agreements to agree” in lieu of programs that are by the rule necessary in specificity and particularity for the application to be complete.	Exhibit F LGA Declaration.pdf	Pg.54
Exhibit G	Updated Final Safety Analysis Report	Provided in Petition Filed Dec. 10 as Ex. J, Appendix C	Pg.47
Exhibit H	IGS-2006-02 “ Staff Guidance on Acceptance Review for Environmental Requirements”	isg--2006-02.pdf	Pg. 56
Exhibit I	Amendment Nine of the Operating License	Provided with Petition Filed Dec. 10 as Ex. I	Pg. 71
Exhibit J	GZA Environmental, Inc. “Hydologic Site Investigation Report, Indian Point Energy Center, January 7, 2008, file No. 41.0017369.10	(Provided by Entergy in January 22 Response—therefore not supplied here)	Pg. 5 of Exhibit F
Exhibit K	omitted		
Exhibit L	omitted		
Exhibit M	Supplemental Declaration of Ulrich Witte regarding Flow-accelerated Corrosion	FAC Declaration Supplemental.pdf	Pg. 104
Exhibit N	Audit of NRC’s License Renewal Program OIG-07-A-15 September 6, 2007 (same exhibit listed under Ex. E and EE)	OIG report on License Renewal.pdf	Pg. 102
Exhibit O	Curriculum Vitae Ulrich Witte	UlrichKonradWitte resume.pdf	Page 2 of Exhibit F; Page 2 of Exhibit Q Page 2 of Exhibit M
Exhibit P	NRC BULLETIN 2003-02: leakage from reactor pressure vessel lower Head penetrations and reactor coolant pressure Boundary integrity	Bulletin 2003-02 and IP response b.pdf	Pg. 86 & Pg. 6 of Exhibit Q
Exhibit Q	Supplemental Declaration of Ulrich Witte regarding misrepresentation of design, construction and operation of Unit 2 and Unit 3 to draft GDC’s.	GDC Declaration Supplemental.pdf	Pg. 86

Exhibit R	Flow-Accelerated Corrosion failures	<u>Oct 2007 repair to service water pipe.pdf</u>	Pg. 104; exhibit M.
Exhibit S	Order of the ASLB on August 10, 2007 In the Matter of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vt. Yankee Power Station)		Pg. 104
Exhibit T	Order of the ASLB on August 10, 2007 In the Matter of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vt. Yankee Power Station)		Pg. 105
Exhibit U	Atomic Industry Forum... Trade comments to draft General Design Criteria and Erroneously claim of publication in the Federal Register for public comment in July, 1967	See Petition Filed Dec. 10 as Ex. J	Pg. 71
Exhibit V	General Design Criteria for the LRA and subsequently approved by the Atomic Energy Commission under the 1970 Safety Evaluation Report	See Petition Filed Dec. 10 as Ex. K	Pg. 72
Exhibit W	Documents cited or submitted in the applicant's LRA. The commission dealt with the design basis and license failures with a stroke of a pen in 1992	See Petition Filed Dec. 10 as Ex. M	Pg. 4 of Exhibit Q
Exhibit X	omitted		
Exhibit Y	Technical Spec Bases Requirements, update of 2004	<u>IP3 Technical Specifications Bases Manual October 2004</u>	Pg. 84 & Page 5 of Exhibit Q
Exhibit Z.	General Design Criteria 45 (p. 14)	See Petition Filed Dec. 10 as Ex. N at page 14	Pg. 85
Exhibit AA	Baffle bolt testing: alter chemistry tests vs. automated testing components such as baffle bolts that hold down springs, lower core barrel, and lower core plate are routinely UT or VT'd during outages and often replaced	See Petition Filed Dec. 10 as Ex. P	Pg. 85

Exhibit BB	20 inch conduit	See Petition Filed Dec. 10 as Ex. R	Pg.88
Exhibit CC	1992 letter	See Petition Filed Dec. 10 as Ex. W	Pg.88
Exhibit DD	See Declaration of Ulrich Witte, Exhibit Q	See Exhibit Q of Petitioners Reply brief 2/15/08	Pg. 89
Exhibit EE	Audit of NRC's License Renewal Program OIG-07-A-15 September 6, 2007 (same exhibit listed under Ex. E and N)	<u>OIG report on License Renewal.pdf</u>	Pg. 89
Exhibit FF	Office instruction for Nuclear Reactor Regulation LIC-100	See Exhibit Q of Petitioners Reply brief 2/15/08	Pg. 89

APPENDIX B

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
ENTERGY NUCLEAR OPERATIONS, INC.) Docket Nos. 50-247/286-LR
)
(Indian Point Nuclear Generating))
Units 2 and 3))
)

REVISED CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Reply of WestCAN et al. dated February 15, 2008, have been served upon the Office of the Secretary, U.S. Nuclear Regulatory, Sixteenth Floor, One Flint North, 11555 Rockville Pike Rockville, Maryland 20852, and a courtesy paper copy has been sent to Staff and Entergy's attorney's. I further certify that CD copies of the foregoing Reply of WestCAN et al. dated February 15, 2008, have been served upon the following addresses provided below, this 15th day of February, 2008 by DHL courier service. Additionally, I hereby certify that copies of the foregoing Reply Brief of WestCAN et al. dated February 15, 2008, have been electronically served upon the following email addresses provided below, this 16th day of February, 2008.

Lawrence G. McDade, Chair
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: LGM1@nrc.gov

Office of Commission Appellate Adjudication
U. S. Nuclear Regulatory Commission
Mail Stop: O-16G4
Washington, D.C. 20555-0001
Email: OCAAMAIL@nrc.gov

Dr. Richard E. Wardwell
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: REW@nrc.gov
Sherwin.turk@nrc.gov
Beth.mizuno@nrc.gov
christopher.chandler@nrc.gov
kimberly.sexton@nrc.gov

Office of the Secretary
Attn: Rulemaking and Adjudications Staff
Mail Stop: O-16G4
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Email: HEARINGDOCKET@nrc.gov

Dr. Kaye D. Lathrop
Atomic Safety and Licensing Board
190 Cedar Lane E.
Ridgeway, CO 81432
E-mail: KDL2@nrc.gov

Zachary S. Kahn, Law Clerk
Atomic Safety and Licensing Board
Mail Stop – T-3 F23
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Email: ZXK1@nrc.gov

Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Mail Stop – T-3 F23
Washington, D.C. 20555-0001

William C. Dennis, Esq.
Assistant General Counsel
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601
Email: wdennis@entergy.com

Kathryn M. Sutton, Esq.
Paul M. Bessette, Esq.
Martin J. O'Neill, Esq.
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, NW
Washington, D.C. 20004
E-mail: ksutton@morganlewis.com
E-mail: pbessette@morganlewis.com
E-mail: martin.o'neill@morganlewis.com

Michael J. Delaney, Esq.
Vice President – Energy Department
New York City Economic Development
Corporation (NYCDEC)
110 William Street
New York, NY 10038
E-mail: mdelaney@nycedc.com

John LeKay
FUZE USA
351 Dyckman Street
Peekskill, NY 10566
E-mail: fuse_usa@yahoo.com

Arthur J. Kremer, Chairman
New York Affordable Reliable Electricity
Alliance (AREA)
347 Fifth Avenue, Suite 508
New York, NY 10016
E-mail: ajkremer@rmfp.com
kremer@area-alliance.org

Manna Jo Greene
Hudson River Sloop Clearwater, Inc.
112 Little Market Street
Poughkeepsie, NY 12601
Email: Mannaio@clearwater.org

Justin D. Pruyne, Esq.
Assistant County Attorney
Westchester County Attorney's Office
148 Martine Avenue, 6th Floor
White Plains, NY 10601
E-mail: jdp3@westchestergov.com

Daniel E. O'Neill, Mayor
James Seirmarco, M.S.
Village of Buchanan
Municipal Building
Buchanan, NY 10511-1298
E-mail: vob@bestweb.net

John J. Sipos, Esq.
Charlie Donaldson, Esq.
Assistants Attorney General
New York State Department of Law
Environmental Protection Bureau
The Capitol
Albany, NY 12224
E-mail: john.sipos@oag.state.ny.us

Joan Leary Matthews, Esq.
Senior Attorney for Special Projects
New York State Department of
Environmental Conservation
Office of the General Counsel
625 Broadway, 14th Floor
Albany, NY 12233-1500
E-mail: jimatthe@gw.dec.state.ny.us

Diane Curran, Esq.
Harmon, Curran, Spielberg & Eisenberg, LLP
1726 M Street, NW, Suite 600
Washington, D.C. 20036
E-mail: dcurran@harmoncurran.com

Robert Snook, Esq.
Office of the Attorney General
State of Connecticut
55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120
E-mail: robert.snook@po.state.ct.us

Daniel Riesel, Esq.
Thomas F. Wood, Esq.
Ms. Jessica Steinberg, J.D.
Sive, Paget & Riesel, P.C.
460 Park Avenue
New York, NY 10022
E-mail: driese1@sprlaw.com
jsteinberg@sprlaw.com

Ms. Nancy Burtop
147 Cross Highway
Redding Ridge, CT 06876
E-mail: nancyburtonct@aol.com

Janice A. Dean
Assistant Attorney General
Office of the Attorney General
120 Broadway, 26th Floor
New York, NY 10271
E-mail: janice.dean@oag.state.ny.us

Victor Tafur, Esq.
Phillip Musegaas, Esq.
Riverkeeper, Inc.
828 South Broadway
Tarrytown, NY 10591
E-mail: phillip@riverkeeper.org
vtafur@riverkeeper.org

Elise N. Zoli, Esq.
Goodwin Procter, LLP
Exchange Place
53 State Street
Boston, MA 02109
E-mail: ezoli@goodwinprocter.com

Sherwin Turk, Esq.
Lloyd Subin, Esq.
Beth N. Mizuno, Esq.
Kimberly Sexton, Esq.
Christopher Chandler, Esq.
Office of the General Counsel
U.S. Nuclear Regulatory Commission
Mail Stop 0-15-D-21
Washington, D.C. 20555
Email: Sherwin.turk@nrc.gov
Beth.mizuno@nrc.gov
christopher.chandler@nrc.gov
kimberly.sexton@nrc.gov

Sarah L. Wagner, Esq.

APPENDIX C

**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the matter of

ENTERGY NUCLEAR INDIAN POINT 2 L.L.C.,)	
ENTERGY NUCLEAR INDIAN POINT 3, L.L.C.,)	License No. DPR 26 and
And Entergy Nuclear Operations, Inc.)	License No. DPR 64
and Entergy Northeast, Inc.,)	
regarding the Indian Point Energy Center)	Docket No. 50-247 and
Unit 2 and Unit 3 License Amendment)	Docket No. 50-286
Regarding Fire Protection Program)	

SUPPLEMENTAL DECLARATION OF ULRICH WITTE
REPLY to ENTERGY'S RSEPNSE AND STAFF'S RESPONSE TO
PETITION FOR LEAVE TO INTERVENE, REQUEST FOR HEARING,
AND CONTENTIONS REGARDING LICENSE RENEWAL OF
INDIAN POINT UNIT 3 AND UNIT 2
RE: CONTENTIONS 36

My name is Ulrich Witte. WestCAN, RCCA, PHASE, the Sierra Club—
Atlantic Chapter, and Assemblyman Richard Brodsky have retained me with
respect to the above-captioned proceeding. I am a mechanical engineer with
over twenty-six year's professional experience in engineering, licensing, and
regulatory compliance of nuclear commercial nuclear facilities. I have
considerable experience and expertise in the areas of configuration
management, engineering design change controls, and licensing basis

reconstitution. I have authored or contributed to two EPRI documents in the areas of finite element analysis, and engineering design control optimization programs. I have led industry guidelines endorsed by the American National Standards Institute regarding configuration management programs for domestic nuclear power plants. My 26 years of experience has generally focused on assisting nuclear plant owners in reestablishing fidelity of the licensing and design bases with the current plant design configuration, and with actual plant operations. In short, my expertise is in assisting problematic plants where the regulator found reason to require the owner to reestablish competence in safely operating the facility in accordance with regulatory requirements. My curriculum vitae is attached hereto as Exhibit O.

I submit the following comments in support of each coalition stakeholder in Contention 36 regarding Entergy's Flow-Accelerated Corrosion Program for Indian Point Units 2 and 3.

Contention 36:

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

The need for Flow-accelerated Corrosion management:

Flow Accelerated Corrosion phenomena was outside original design basis analysis, and engineering analysis did not predict the catastrophic events of 1986 and the Surry Plant, where work workers were killed, when an 18 in pipe ruptured with no prior warning. The plant was 15 years old at the time of the event. Causal usual relation to actual safe operation of the plant and even potential loss of control room habitably was not foreseen, when steam condensate shorted circuit cards in fire control panels, dumping the entire CO2 system, rendering it inoperable and endangering additional human life. Since CO2 is heavier than air, concentrations eventually accumulated in the plant control room. Senior Reactor Operators elected to not evacuate the control room, and begin disoriented and in some case ill from oxygen displacement by the Carbon dioxide ~~dioxide~~.

The issue at Indian Point is insufficiently managed now, as it is at other Entergy Plants.

Submitted with particularity and specificity are provided here in for Unit 2. Unit 3 contains a similar historical record. The records show that the issue exists for both plants. See Exhibit R.

In essence, the aging management program required for license extension is predicated upon a sound, compliant and complete design basis record. Use of CHECWORKS is predicated upon the plants material conditional being monitored under the auspices a formal ~~of the~~ program *and* benchmarked against industry trends and both cite specific and events such as ruptured pipes or unpredicted pipe thinning at other facilities. Without this, the plant's material condition, basis design assumptions required for an adequate Flow-accelerated program cannot not be substantiated.

The issue of adequate benchmarking of data is part of the larger question that Contention 36 raises. To fully address the contention, the applicant needs to establish the proposed licensing basis for management of FAC vulnerability of plant piping, as required under NUREG 1801 for each relevant system; second, provide the technical ground for basis of a program that adequately assures the plant will be safely operated and maintained

regarding FAC; and finally confirmation that the program developed is fully implemented, and durable for the extended operating period.

What the record shows is the following statement by Entergy: “The FAC program that will be implemented by Entergy during the license renewal period which is the *same program* being carried out today and will meet all regulatory requirements and industry guidance”. This sweeping statement contained in the current pending LPA, is vague, and provides no engineering insight. However, the identical program is implemented at Vermont Yankee by under the same procedures. With problems. After numerous independent evaluations proffered by entergy for VY, -the identical program to IP was found to be admissible, and the ALSB in those proceedings found the material facts in dispute ~~geninue~~genuine, and ruled against a motion for summary disposition. The hearing is scheduled for this summer.

As the expert witness corroborating with another expert, in those procedures, combined with and the statements made in the LRA, and my knowledge that the programs, procedures, and industry guidance is all identical, along with the record of pipe breaks of many can be characterized as likely FAC based such as exhibit R. I cannot conclude that aging management with respect to Flow Accelerated Corrosion Program at Indian Point meets the guidance of NUREG -1801, Section XI.M.17 nor the rule.

Industry experience, heightened attention, and new guidance reflect the need to narrow the uncertainties in predicting flow accelerated corrosion. The facts are that failures associated with FAC continue to occur. For example, during the past three years, pipe thinning or failure events have occurred at Duane Arnold, Hope Creek, Clinton, Braidwood, LaSalle, Peach Bottom, Palo Verde, Palisades, Catawba, Calvert Cliffs, ~~Kawane~~Kewanee, Browns Ferry, ANO, and Salem. New failures currently being investigated for failure mechanisms include Cooper, SONGS, and Nine Mile point. Some of these plants have received power uprate approvals including stretch, and MU, and are operating at increased power levels, others have EPU applications in progress.

Of particular interest in those plants that have received UPE licenses, and their failure rates after ~~baselining~~base lining the configuration geometries and wear rates post UPE. A brief review includes Hatch (2005), Clinton, Palo Verde, Dresden, Quad Cities, Surry (2006 event), and Kewaunee. Each has seen a FAC related failure after EPU.

The facts clearly point to the uncertainty in predictability—and the danger of depending on one empirical program such as CHECWORKS as a free standing singular reliable tool to avoid negative margin or pipe failure is addressed within the guidance. Industry guidance suggests an overlapping

approach. For example, under NUREG 1801, the VY LPA requires addressing numerous mechanical aging programs under GALL. The FAC program is one of them and needs to address each of the following elements:

- (1) Scope
- (2) Preventative actions
- (3) Parameters monitored or inspected
- (4) Detection of aging effects
- (5) Trending
- (6) Acceptance criteria
- (7) Corrective actions
- (8) Confirmation processes
- (9) Administrative processes
- (10) Operating experience

Included in items (3) and (4) and (5) is the need to establish parameters, trending, and detection of aging effects. No particular number is specified for benchmarking in the NUREG,- however, a firm recommendation in the NUREG is that a comprehensive baseline be established. Given that each plant has unique characteristics and operating histories this is reasonable. Separate industry guidance supports 5-10 years of data trending. See for example, “Aging management and life extension in the US Nuclear Industry”

October 2006, prepared by the Chockie Group International, page 38. The outer limit of this range supports my opinion of at least 10 years for Indian Point given the extent of mismanaged pipe and equipment leakage almost from day one, and the unlawful use of suggested original design criteria from a trade organization.

I am forced to conclude that Indian point Program for FAC remains unsubstantiated as acceptable for extended operation, and based on the facts does not assure protection of the health and safety of the public.

Ulrich K. Witte

APPENDIX D

**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the matter of

ENERGY NUCLEAR INDIAN POINT 2 L.L.C.,)	
ENERGY NUCLEAR INDIAN POINT 3, L.L.C.)	License No. DPR 26 and
And Entergy Nuclear Operations, Inc.)	License No. DPR 64
and Entergy Northeast, Inc.,)	
regarding the Indian Point Energy Center)	Docket No. 50-247 and
Unit 2 and Unit 3 License Amendment)	Docket No. 50-286
Regarding Fire Protection Program)	

DECLARATION OF ULRICH WITTE
REPLY TO RESPONSES BY ENTERGY AND STAFF ANSWERING
PETITION FOR LEAVE TO INTERVENE, REQUEST FOR HEARING,
AND CONTENTIONS REGARDING LICENSE RENEWAL OF
INDIAN POINT UNIT 3 AND UNIT 2

My name is Ulrich Witte. WestCAN, RCCA, PHASE, and the SIERRA CLUB, and Assemblyman Richard Brodsky have retained me as a consultant and Expert Witness with respect to the above-captioned proceeding. I am a mechanical engineer with over twenty-six year's professional experience in engineering, licensing, and regulatory compliance of nuclear commercial nuclear facilities. I have considerable experience and expertise in the areas of configuration management, engineering design change controls, and licensing basis reconstitution. I have authored or contributed to two EPRI documents in

the areas of finite element analysis, and engineering design control optimization programs.

I have led industry guidelines endorsed by the American National Standards Institute regarding configuration management programs for domestic nuclear power plants. My 26 years of experience has generally focused on assisting nuclear plant owners in reestablishing fidelity of the licensing and design bases with the current plant design configuration, and with actual plant operations. In short, my expertise is in assisting problematic plants where the regulator found reason to require the owner to reestablish competence in safely operating the facility in accordance with regulatory requirements. My curriculum vitae is attached hereto as ~~Attachment A~~Exhibit O.

I submit the following comments in support of each coalition stakeholder in asserting the incomplete License Renewal Application submitted by the Applicant submitted after several attempts, and formally accepted for docketing by Staff, and published on August 1, 2008.

I note that the License Renewal Application was significantly amended again, on and submitted to the ASLB, Staff, and other parties, after an extensive 181 page amendment. It was not however, made placed in the

Federal Register for public review. Changes should have been noticed to all the intervening organizations, it also apparently was not.

My expertise in Configuration Management in the industry is particularly relevant to my judgment surrounding program fidelity, completeness, and compliance to federal rules. I have assisted seven plants during my tenure in reestablishing the foundational prerequisite licensing basis and design bases, together with the integration of complex programs after the Licensee lost the ability to operate in compliance with federal rules, such as 10CFR54(f), and often required more than a year to return to service. My curriculum vitae is provided in Attachment ~~1~~ Exhibit O to this declaration.

CONTENTION 13: The LRA is incomplete and should be dismissed, because it fails to present a Time Limiting Aging Analysis and an Adequate Aging Management Plan, and instead makes vague commitments to manage the aging of the plant at uncertain dates in the future, thereby making the LRA a meaningless and voidable “agreement to agree.”

License renewal is ~~be~~ by “strict design” under the rules, and as found ~~held~~ by current precedence in renewal proceedings, can be summarized into the following four narrow areas of scope: as

~~The Staff’s well as the Applicant’s response to our petition and for that matter to all of the petitions submitted, is that by “strict design,” License~~

Renewal (as codified in 10CFR54 and 10CFR51) can be simplified to address four things—and four things only:

- (a) Aging of the plant structures, systems, and components will be sufficiently managed – where one cannot argue they are already addressed within the current license basis.
- (b) review of time limited aging evaluations
- (c) environmental impact analysis that is clearly plant specific and not generic, (for example, severe accident risk is out of scope but alternatives to severe accidents are in scope)
- (d) anything else that one can prove is only possible during the renewal period but not during the current license period.

This very narrow scope is misconstrued as a structural boundary of the renewal scope in its core basis. As asserted in both the Back Ground and Summary sections of this reply actual renewal can only be legally narrowed to this points if (1) the current license basis is known, and the applicant as available incontrovertible evidence that proves compliance, (2) the present programs to be relied upon are sound, and the record provides the public as well as the Commission confidence, that rationale for extended the license term beyond the engineered design life is both safe and environmental sound.

Example after example show otherwise. Indian point was design to *suggested* criteria by a lobbying organization. Neither plant was designed or constructed to even draft design criteria, and it shows. The LRA states otherwise. See for example page 7 of Unit 3 LRA.

The results are not insignificant. Feedwater pipe bucking on Unit 2, a Steam generator tube rupture on Unit 2, fire protection program breakdowns that are substantial, and currently unresolved. Even an emergency plan that is not functional after decades of wrangling between the regulator, congressional leadership, community leadership, and decades is telling.

On January 7, 2008, Entergy acknowledged the existence of a credible report (see Exhibit F), where contaminants are leaking into the Hudson river principally from two leaking spent fuel pools, but not limited to other sources as described in contentions within this petition. The Report appears to assume the Hudson ~~river~~River water is not currently potable, and not used for drinking. However, that condition is expected to change.

These issues all point to a broken Configuration Management Program. Under item, (d) above, there appears to be no plan to correct this and this is a clear example, of “any other issue anything else that one can prove is only possible during the renewal period but not during the current license period.”

For the Applicant to-claim is essentially “trust me” in response after response” where specifics are required, and ambiguities are provided -- is a duck and run tactic. In precedence the approach that-tolerated may be an-the approach of ~~that essentially can be~~ summarized as “we’ll figure this out later when we get a grip.” As an engineer, and expert in configuration

management, and expert in regulatory commitment management (see e.g. specific experience on my CV regarding regulatory commitment management for Millstone, one-I can only wonder how a problematic plant can argue the most fundamental violation of contract law as acceptable and sufficient. An agreement to agree to resolve the problem later is void. The issues where the Applicant does this are: Flow Accelerated Corrosion, (what constitutes precise scope, including inspection of buried piping), Equipment Qualification (what and when to replace components), and reactor vessel internals analysis required for TLAA. The applicant has failed miserably on this issue already at Vermont Yankee, and this presently a significant element to renewal at Entergy's sister plant. The known problem of High Head Safety Injection System design is a clear example of TLAA scope falling short, and yet the public and the regulator is being asked to "trust Entergy." In my 26 years in assisting plant owners s-with recovery from being shutdown for extended periods. Trust me: w-Was not in any one's vocabulary. Not the rule, not the guidance, and certainly not earned by past performance. Transparency was. The LRA is NOT transparent. The recent six violations on Unit 3 continue to support the breakdown in core configuration management at Unit 3. The OIG report regarding license renewal reinforces the breakdown. Fire protection (in particular Hemyc wrap being installed in 1995 on Unit 3, known to be

deficient within a few years. Yet was left as is, for eleven years—and is uniquely¹ pencil whipped into the conclusion~~condition~~ by Entergy as not actually being a problem at. I beg to differ. The licensee is in current violation of the one hour rule with an unlawful “exemption” that is ungrounded and does not defend the risks to the public as acceptable. I cannot agree that the vague dates to manage the staggering number of issues with the facility back to safe operation and regulatory compliance in the future are sufficient to assert that Entergy will accomplish the core elements of renewal scope.

What is left for inference but not available for direct facial challenge is that the rule bypasses a plethora of issues that start from current unresolved problems and are expected (by engineering rigor and not mere speculation) to either not be resolved at the end of the current license period, or more importantly, reflect a failed implementation of design criteria, operational criteria; or design basis accident mitigation that actually worsen by extending the operating license. Any topic that is addressed elsewhere is argued by Staff as out of scope—for example, emergency planning, or design basis threat. In the face of precedence that states otherwise, I believe this is fundamentally a failure by the Commission to accomplish its mandate. The

¹ With the exception of Entergy's James A FitzPatrick Plant which also received an exemption for a similar condition in 2006.

physical and materiel scope of license renewal including specific plant systems, structures, components is incorrectly interpreted by the Staff—and significant areas of scope are improperly excluded.

The nexus between adequate engineering, design and operation, and maintenance of the existing plant is relevant to the predicted aging of safe operation of the extended facility. This challenge cannot be set aside – but instead must be resolved a priori to current renewal proceedings. (applicable law: precedence for this is some of this is in place from ASLB proceedings regarding VY)

First, the materiel condition of the plant matters and that depends heavily how the plant was designed, operated, modified, and maintained compliant. i.e. the efficacy of the physical plant through the past 45 years since construction needs to be provable by the docketed record including compliance to the historical and current license bases by the applicant. Second, the rules and case law by themselves establish the sufficiency of the license bases so as to adequately implement the congressional enacted statutes governing the protection of the health and safety of the public, as well as minimizing risk to the public assets.

The rules as codified in part 2, together with the case law are deliberate in reigning in the scope to the above four narrow areas, and it is left to the

petitioner, (at least within the agency's forum for adjudication) to argue by inference the relevancy of the historical condition, accidents, design failures, insufficient corrective actions, incomplete modifications, and margin is adequate as a starting point to show that reactor, its control, and safety-related systems designed for forty years, may be safely operated for 60 years *with* substantial power up rates.

The nuclear regulatory commission's mandate is not being met by this narrow view. License Renewal proceedings as found in the hearings to date and the rules themselves, together demonstrate what is truly a stacked deck². The Nuclear Regulatory Commission mandate itself is not currently implemented.³

In examining this contention for admissibility, we ask the Board independently ask it self the following with respect to this contention.

(1) Arguments for staying the renewal process—in spite of the Oyster creek precedence.

- a. OIG report – the renewal process is broken.
- b. Petition submitted supporting cessation of renewal proceedings until OIG renewal problems are corrected—specifically IP LRA as well as VY, Oyster Creek,

² See for example, United States Nuclear Regulatory Commission Staff Practice and Procedure Digest. Commission Appeal board and Licensing Board Decisions July 1972-January 31, 2004. Published 2005, known as NUREG-0386, Digest 13. 704 pages of mandated authoritative precedence regarding the rules provided under 10CFR2. Yet the digest contains a disclaimer that it is not necessarily correct, or complete, cautions the reader on the second page that precedent cited is current, and consistent with the new rules.

³ See comments regarding the NRC's failure to implement is congressional mandate

- c. Vermont Governor and Vermont DPS calls for halt in renewal proceedings objection filed January 18, 2008.
- d. The EPA calling for complete environmental assessment in October 2007.
- e. Arguments that present new questions or contentions based upon new information (these could be submitted as a a new and distinct series of petitions)
- f. December 18 changes to the LRA were material and substantial and unpublished.
- g. Changes in security and confidentiality policy compels a conclusion that the LRA needs to be revised and to include areas formerly considered confidential and therefore beyond reach of public intervention. (see documents recently made public by the NRC)
- h. OIG report regarding fire protection
- i. Failure to incorporate DBT threat into the renewal process

(2) The physical and materiel scope of license renewal including specific plant systems, structures, components is incorrectly interpreted by the Staff—and significant areas of scope are improperly excluded. The nexus between adequate engineering, design and operation, and maintenance of the existing plant is relevant to the predicted aging of safe operation of the extended facility. This challenge cannot be set aside – but instead must be resolved a priori to current renewal proceedings. (applicable law: precedence for this is some of this is in place from ASLB proceedings regarding VY)

(3) NRC must compel the licensee to complete proper environmental impact assessments for 100's of significant changes to the facility need

to be addressed. Applicable law: Environmental impact rulemaking (codification is currently in progress) to strengthen this acknowledged weakness of the rules.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed this 15th day of February, 2008.

Ulrich K. Witte

APPENDIX E

**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the matter of

ENERGY NUCLEAR INDIAN POINT 2 L.L.C.,)	
ENERGY NUCLEAR INDIAN POINT 3, L.L.C.)	License No. DPR 26 and
And Entergy Nuclear Operations, Inc.)	License No. DPR 64
and Entergy Northeast, Inc.,)	
regarding the Indian Point Energy Center)	Docket No. 50-247 and
Unit 2 and Unit 3 License Amendment)	Docket No. 50-286
Regarding Fire Protection Program)	

SUPPLEMENTAL DECLARATION OF ULRICH WITTE
REPLY TO ENTERGY'S RSEPOSE AND STAFF'S RESPONSE TO
PETITION FOR LEAVE TO INTERVENE, REQUEST FOR HEARING,
AND CONTENTIONS REGARDING LICENSE RENEWAL OF
INDIAN POINT UNIT 3 AND UNIT 2
RE: CONTENTIONS 22-25

My name is Ulrich Witte. WestCAN, RCCA, PHASE, the Sierra Club—Atlantic Chapter, and Assemblyman Richard Brodsky have retained me with respect to the above-captioned proceeding. I am a mechanical engineer with over twenty-six year's professional experience in engineering, licensing, and regulatory compliance of nuclear commercial nuclear facilities. I have considerable experience and expertise in the areas of configuration management, engineering design change controls, and licensing basis

reconstitution. I have authored or contributed to two EPRI documents in the areas of finite element analysis, and engineering design control optimization programs. I have led industry guidelines endorsed by the American National Standards Institute regarding configuration management programs for domestic nuclear power plants. My 26 years of experience has generally focused on assisting nuclear plant owners in reestablishing fidelity of the licensing and design bases with the current plant design configuration, and with actual plant operations. In short, my expertise is in assisting problematic plants where the regulator found reason to require the owner to reestablish competence in safely operating the facility in accordance with regulatory requirements. My curriculum vitae is attached hereto as Exhibit O.

I submit the following comments in support of each coalition stakeholder in Contentions 22-25 regarding the original design, construction and operation of the plant, and their relevancy to the license renewal application as delineated in 10CFR Part 54.21, "Contents of the application,-general information" and 10CFR50.54.22 , "Contents of the application – technical information," and 10CFR54.31 "Continuation of the CLB and conditions of renewed license" as contained in the License Renewal Proceedings of Indian Point Unit 2 and 3.

Contention:

The Applicant was not required to comply with the federal approved general design criteria, contained in the Code of Federal Regulations (CFR) and instead used trade guidance for Indian Point 2 and 3. as opposed to of General Design Criteria for current design, and the current operating license and with regard to the Applicant's LRA for an additional 20 years of operation

The design criteria based upon trade guidance, was misrepresented by the Applicant in the renewal application as conforming to draft criteria published in 1967, and then relieved of all conformance to essentially all committed design criteria under a letter published by the Office of Nuclear Reactor Regulation in 1992.

The historical record shows that the applicant after discovering the error, failed to remediate the violation, and the misrepresentation, and therefore, indicates a breakdown in implementing and enforcing the provisions of the Administrative Procedures Act.

This 40 year old design criteria problem affects both plants, and leaves Indian Point without adequate safety margins and the New York Metropolitan region without adequate assurance of protection of public health and safety

Submitted with particularity and specificity are provided here in for Unit 2. Unit 3 contains a similar historical record. The records show that the issue exists for both plants.

In essence, the aging management program required for license extension is predicated upon a sound, compliance and complete design basis record. Without this, the plant's material condition, basis design assumptions required for license renewal cannot be substantiated by prerequisite in situ conditions of essentially all aspects of each ageing plant.

Both respondents argues the legal ground of the general design criteria, ~~w~~Whereas neither Staff nor Entergy takes issue with the historical events leading to our conclusion. The regulatory history regarding applicability is not contested as documented on the table beginning on page 169 of the petition. Entergy argues that we simply arrived at the incorrect conclusion. Even with Unit 3, for example, stating in Section 1.3 of the UFSAR that it complies with the GDCs, Entergy's counsel states with respect to contentions 10, 11A and 22, 23, 24, and 25 that *neither plant is committed to the GDCs at all.*

Much on point, ~~there~~this is a substantial error in Entergy's response.

Page 59 of the Applicant' response states the following:

The GDC, which are contained in Appendix A to 10 C.F.R. Part 50, establish minimum requirements for the principal design criteria for water-cooled nuclear power plants. As set forth in NRR Office Instruction LIC-I00, Revision 1, *the GDC are not applicable to plants with construction permits issued prior to May 21, 1971.* The construction permits for Indian Point Units 2 and 3 were issued before that date; on October 14, 1966, and August 13, 1969, respectively. *Thus, the GDC do not apply to those plants.* [emphasis added]

This is a substantial error. The reliance of Energy and Staff of the legality of LIC 100 is misguided—the document is far from authoritative. See Exhibit W. There are literally 100s of places in the license basis where the applicant directly or by inference states that he or she intends to comply with the GDC in question so as to answer the notice, letter, order or tiered licensing document.

Several examples are provided. A very high tier document is the plant Technical Specification Manual. This is essentially the undisputed black letter set of rules that the plant must conform to operate within its license conditions, and technical limits to operational actions are required for off-normal events, or design basis accidents.

The TRM cites B 3.1 REACTIVITY CONTROL SYSTEMS, B 3.1.3 Moderator Temperature Coefficient (MTC), that ***GDC 11 is required***. GDC 11 for this application is the *final GDC dated May 21, 1971*. According to GDC 11 (Ref. 1, in the TRM), “the reactor core and its interaction with the Reactor Coolant System (RCS) must be designed for inherently stable power operation, even in the possible event of an accident. In particular, the net reactivity feedback in the system must compensate for any unintended reactivity increases.”

In addition, on page 65 of the file, and The meteorological monitoring instrumentation system was installed to meet the requirements, in part, of 10 CFR 50 Appendix A (again, the TRM cites Ref.1), Title 10, Code of Federal Regulations, Part 50 Appendix A, Criterion 64, "Monitoring Radioactivity Releases." See exhibit Y

Just by making this statement in their response they essentially invalidate and discredit their entire license renewal application, and there January 22nd response. In fact, any statement they make in the LRA, or in responses to RAIs, or legal proceeding may be interpreted as *a possible modification to the CLB*. A statement "thus, the GDC do not apply to those plants," (see page should have Staff more than just a little agitated. A second occurrence is found on Page 64, of Entergy's reply contention 11B renewal. "As a threshold matter, IPEC Units 2 and 3 are not subject to the GDC...further, to the extent WestCAN is challenging the underlying design of the facility, such matters are beyond the scope of this proceeding and are inadmissible as a matter of law." One cannot fathom that with these kinds of fundamental errors, of what design criteria the plant is required to be engineered, designed and operated to, it is beyond sound engineering, that one can somehow apply engineering analysis to any aspect of the rules of 10CFR54.

A second example is provided in Exhibit P. In this example, NRC BULLETIN 2003-02: leakage from reactor pressure vessel lower Head penetrations and reactor coolant pressure Boundary integrity is at issue. On page 4 of Entergy's response to the Bulletin (included in Exhibit M), the applicant states "Also, the information provided in Section 3, Regulatory Requirements, of MRP-48 (Reference 1) is applicable for the IP2 and IP3 RPV lower head. *Compliance with the applicable general design criteria (GDC 14, 31, and 32) is discussed in the Updated Final Safety Analysis Reports for IP2 and IP3.*"

Control room habitability is a third example.

We stand firm that admissibility threshold is met for all six criteria. We disagree with the Applicants complaint of lack of particularity and specificity. These examples should have been ferreted out the Applicant prior to wasting so many resources in and the public health and safety at risk for so many years and not suggesting 20 more.

Essentially every other element of safety and hinges on integrity, control and management of the licensing and design basis, and compliance with the law, and lawful operation of the facility. One would think one could simply examine the SER, along with the rest of the CLB circa the original operating license granted and find transparent the records for design basis,

construction, licensing conditions, maintenance and safe operation of the plant.

After careful examination of the facts, as represented in the table of events, it appears that just the opposite is true. Applicable rules as found in 10 CFR are not followed, and in fact it appears the applicant and the regulator are under “discretionary enforcement” or other unlawful bypassing of the rules such as LIC-100, the opposite routinely. Bypassing the core protection provided to the public under the Administrative Procedures Act is unacceptable.

The past and present owners of Indian Point have failed for forty years to ensure that the nuclear reactor(s) are in compliance with regulations established by the US Nuclear Regulatory Commission to ensure public health and safety.

In its application for a 20-year license extension, Entergy has misrepresented the official record of the Federal Register to give a false appearance of compliance with regulations. In fact, the reactors have been out of compliance since they were granted its original operating license 40 years ago.

The License Renewal Rule requires the applicant to identify which set of rules and regulations the reactor complies to (NRC regulations have been changed and updated several times since the 1960's.) However, the Applicant and the NRC are unable or unwilling to state which regulations are applicable to Indian Point.

The Nuclear Regulatory Commission has failed in its responsibilities by allowing Indian Point to operate under a set of "guidelines" proposed forty years ago by an industry lobbying group, but never approved by the NRC's mandatory "rule-making" process.

The results of this are painfully obvious. A plant that that experienced a design basis event tube rupture, spent fuel pools leaking, and piping leaking. Establishing and maintaining the design basis is impossible, when the core general design criteria are simply set aside.

The smoking gun is evident in the complete version of the 1968 DDFSAR. I cannot endorse relicensing the Indian Point Unit 2 facility based upon the record and the facts of the historical record up to and including the current statements contained the Applicants LRA regarding the construction, management, and safe operation of the plant being in compliance with the draft general design criteria published in the Federal Register in 1967, with

the 1968 DDFSAR Report (see petition filed December 10, 2007) stating otherwise.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed this 15th day of February, 2008.

Ulrich K. Witte

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
ENTERGY NUCLEAR OPERATIONS, INC.) Docket Nos. 50-247/286-LR
)
(Indian Point Nuclear Generating))
Units 2 and 3) February 27, 2008
)
)

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Errata Document submitted by Petitioners WestCAN et al. dated February 27, 2008, has been served by email and by deposit with the U.S. Postal Service upon the following addresses below, this 27th day of February, 2008.

Lawrence G. McDade, Chair
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: LGM1@nrc.gov

Office of Commission Appellate Adjudication
U. S. Nuclear Regulatory Commission
Mail Stop: O-16G4
Washington, D.C. 20555-0001
Email: OCAAMAIL@nrc.gov

Dr. Richard E. Wardwell
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: REW@nrc.gov

Office of the Secretary
Attn: Rulemaking and Adjudications Staff
Mail Stop: O-16G4
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Email: HEARINGDOCKET@nrc.gov

Dr. Kaye D. Lathrop
Atomic Safety and Licensing Board
190 Cedar Lane E.
Ridgeway, CO 81432
E-mail: KDL2@nrc.gov

Zachary S. Kähn, Law Clerk
Atomic Safety and Licensing Board
Mail Stop – T-3 F23
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Email: ZXK1@nrc.gov

Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Mail Stop – T-3 F23
Washington, D.C. 20555-0001

William C. Dennis, Esq.
Assistant General Counsel
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601
Email: wdennis@entergy.com

Kathryn M. Sutton, Esq.
Paul M. Bessette, Esq.
Martin J. O'Neill, Esq.
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, NW
Washington, D.C. 20004
E-mail: ksutton@morganlewis.com
E-mail: pbessette@morganlewis.com
E-mail: martin.o'neill@morganlewis.com

Michael J. Delaney, Esq.
Vice President – Energy Department
New York City Economic Development
Corporation (NYCDEC)
110 William Street
New York, NY 10038
E-mail: mdelaney@nycedc.com

John LeKay
FUSE USA
351 Dyckman Street
Peekskill, NY 10566
E-mail: fuse_usa@yahoo.com

Arthur J. Kremer, Chairman
New York Affordable Reliable Electricity
Alliance (AREA)
347 Fifth Avenue, Suite 508
New York, NY 10016
E-mail: ajkremer@rmfp.com
kremer@area-alliance.org

Diane Curran, Esq.
Harmon, Curran, Spielberg & Eisenberg, LLP
1726 M Street, NW, Suite 600
Washington, D.C. 20036
E-mail: dcurran@harmoncurran.com

Manna Jo Greene
Hudson River Sloop Clearwater, Inc.
112 Little Market Street
Poughkeepsie, NY 12601
Email: Mannaio@clearwater.org

Justin D. Pruyne, Esq.
Assistant County Attorney
Westchester County Attorney's Office
148 Martine Avenue, 6th Floor
White Plains, NY 10601
E-mail: jdp3@westchestergov.com

Daniel E. O'Neill, Mayor
James Seirmarco, M.S.
Village of Buchanan
Municipal Building
Buchanan, NY 10511-1298
E-mail: vob@bestweb.net

John J. Sipos, Esq.
Charlie Donaldson, Esq.
Assistants Attorney General
New York State Department of Law
Environmental Protection Bureau
The Capitol
Albany, NY 12224
E-mail: john.sipos@oag.state.ny.us

Joan Leary Matthews, Esq.
Senior Attorney for Special Projects
New York State Department of
Environmental Conservation
Office of the General Counsel
625 Broadway, 14th Floor
Albany, NY 12233-1500
E-mail: jlmattthe@gw.dec.state.ny.us

Robert Snook, Esq.
Office of the Attorney General
State of Connecticut
55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120
E-mail: robert.snook@po.state.ct.us

Daniel Riesel, Esq.
Thomas F. Wood, Esq.
Ms. Jessica Steinberg, J.D.
Sive, Paget & Riesel, P.C.
460 Park Avenue
New York, NY 10022
E-mail: driesel@sprlaw.com
jsteinberg@sprlaw.com

Ms. Nancy Burtop
147 Cross Highway
Redding Ridge, CT 06876
E-mail: nancyburtonct@aol.com

Janice A. Dean
Assistant Attorney General
Office of the Attorney General
120 Broadway, 26th Floor
New York, NY 10271
E-mail: janice.dean@oag.state.ny.us

Victor Tafur, Esq.
Phillip Musegaas, Esq.
Riverkeeper, Inc.
828 South Broadway
Tarrytown, NY 10591
E-mail: phillip@riverkeeper.org
vtafur@riverkeeper.org

Elise N. Zoli, Esq.
Goodwin Procter, LLP
Exchange Place
53 State Street
Boston, MA 02109
E-mail: ezoli@goodwinprocter.com

Sherwin Turk, Esq.
Lloyd Subin, Esq.
Beth N. Mizuno, Esq.
Kimberly Sexton, Esq.
Christopher Chandler, Esq.
Office of the General Counsel
U.S. Nuclear Regulatory Commission
Mail Stop 0-15-D-21
Washington, D.C. 20555
Email: Sherwin.turk@nrc.gov
Beth.mizuno@nrc.gov
christopher.chandler@nrc.gov
kimberly.sexton@nrc.gov


Sarah L. Wagner, Esq.



THE ASSEMBLY
STATE OF NEW YORK
ALBANY

RICHARD L. BRODSKY
Assemblyman 92ND District

Westchester County

CHAIRMAN
Committee on
Corporations, Authorities
and Commissions

February 27, 2008

Office of the Secretary
U.S. Nuclear Regulatory Committee
Sixteenth Floor
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

Re: Indian Point License Renewal, Docket No. 50-247/286-LR

To Whom It May Concern:

Enclosed please find Petitioners Westchester Citizen's Awareness Network (WestCAN), Rockland County Conservation Association, Inc. (RCCA), Public Health and Sustainable Energy (PHASE), Sierra Club - Atlantic Chapter (Sierra Club), and New York State Assemblyman Richard L. Brodsky Errata to Petitioners Reply Brief dated February 15, 2008.

Sincerely,

A handwritten signature in black ink, appearing to read "Sarah L. Wagner", followed by a long horizontal line extending to the right.

Sarah L. Wagner

cc: service list