RIVR13001 Date Submitted: Sept. 9, 2015

	Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing		
		Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIVR12001	All	Riverkeeper Hearing Exhibit List ("RIV Exhibit List")	June 9, 2015
RIV000002	RK-TC-2	Riverkeeper Initial Statement of Position Regarding Contention RK-TC-2 - Flow Accelerated Corrosion ("RK-TC-2 SOP")	Dec. 22, 2011
RIV000003	RK-TC-2	Pre-Filed Testimony of Joram Hopenfeld in Support of RK-TC-2 ("Hopenfeld Testimony RK-TC-2")	Dec. 22, 2011
RIV000004	RK-TC-2; RK-TC-1B; RK-TC-5	Curriculum Vitae of Joram Hopenfeld ("Hopenfeld CV")	Dec. 22, 2011
RIVR00005	RK-TC-2	Report of Joram Hopenfeld in Support of RK-TC-2 ("Hopenfeld RK-TC-2 Report") (re-designated non-proprietary)	Sept. 7, 2012
RIV000006	RK-TC-2	NRC Information Notice No 86-106, "Feed Water Line Break," December 16, 1986 ("NRC IN 86-106")	Dec. 22, 2011
RIV00007	RK-TC-2	NRC Bulletin 87-01, "Thinning Pipe Walls in Nuclear Plants," July 9, 1987 ("NRC Bulletin 87-01")	Dec. 22, 2011
RIVR00008	RK-TC-2	NRC Information Notice 1991-019, "Steam Generator Feed Water Distribution Piping Damage," March 12, 1991 ("NRC IN 1991-019")	Oct. 1, 2012
RIV000009	RK-TC-2	Monitoring Report 5-93-0042, Steam Generator Feedring Nozzle Through Wall Erosion, June 16, 1993 ("NRC MR 5-93-0042")	Dec. 22, 2011
RIV000010	RK-TC-2	NRC Information Notice 1997-084, "Rupture of Extraction Steam Piping," December 11, 1997 ("NRC IN 1997-084")	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing	
		Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000011	RK-TC-2	NRC Information Notice 2006-008, "Secondary Piping Rupture at Mihama Power Station in Japan," March 16, 2006 ("NRC IN 2006-008")	Dec. 22, 2011
RIV000012	RK-TC-2	EPRI, Recommendations for an Effective Flow-Accelerated Corrosion Program, NSAC-202L-R3 ("EPRI NSAC-202L-R3")	Dec. 22, 2011
RIV000013	RK-TC-2	Safety Evaluation by the Office of Nuclear Reactor Regulations Related to Amendment No. 229 to Facility Operating License No. DPR-28 Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vermont Power Station, Docket No. 50-571), at § 2.8.7.1, p. 190, ADAMS Accession No. ML060050028 ("VY Safety Eval")	Dec. 22, 2011
RIV000014	RK-TC-2	Aging Management Program Evaluation Report – Non-Class 1 Mechanical, IP-RPT-06-LRD07, Revision 5, March 18, 2009 ("AMP Eval Report Rev 5")	Dec. 22, 2011
RIV000015	RK-TC-2	EN-DC-315, Revision 3, Flow Accelerated Corrosion Program (March 1, 2010) ("Entergy FAC Program")	Dec. 22, 2011
RIV00016A	RK-TC-2	Graphs excerpted from CHECWORKS Reports ("CHECWORKS Wear Graphs Part 1")	Dec. 22, 2011
RIV00016B	RK-TC-2	Graphs excerpted from CHECWORKS Reports ("CHECWORKS Wear Graphs Part 2")	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000017	RK-TC-2	V.K. Chexal, W.H. Layman, & J.S. Horowitz, Tackling the Single-Phase Erosion Corrosion Issue, To Be Presented at the American Power Conference April 18-20, 1988, Chicago Illinois (EPRI) ("Chexal APC")	Dec. 22, 2011
RIV000018	RK-TC-2	CHECWORKS TM Steam/Feedwater Application, Guidelines for Plant Modeling and Evaluation of Component Inspection Data, 1009599, Final Report, September 2004, IPECPROP00000271, at p.6-7 (IPECPROP00000334) ("CHECWORKS Proprietary Report 1009599")	Dec. 22, 2011
RIV000019	RK-TC-2	Rudolf H. Hausler, Flow Assisted Corrosion (FAC) and Flow Induced Localized Corrosion: Comparison and Discussion, at 1, 8 (RHH Rebuttal, June 2, 2008, Vermont Yankee License Renewal Proceeding, 06-849-03-LR ("Hausler VY Testimony")	Dec. 22, 2011
RIV000020	RK-TC-2	CSI, Technologies, Inc., Indian Point Unit 3 CHECWORKS SFA Model, Calculation No. 0705.100-01, Revision 2, August 2, 2011, at p.26 (excerpt re: LCF) ("IP3 CHECWORKS SFA Model Aug 2011")	Dec. 22, 2011
RIV000021	RK-TC-2	CSI, Technologies, Inc., Indian Point Unit 3 CHECWORKS SFA Model, Calculation No. 0705.100-01, Revision 2, August 2, 2011, Appendix K – Components with Negative Time to Tcrit, IPEC00238096 ("CHECWORKS SFA Model Aug 2011 App K")	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000022	RK-TC-2	Statement by Dr. F. Peter Ford, transcript of January 26, 2005 meeting of the ACRS Subcommittee on Thermal Hydraulics (January 26, 2005), at 198, ADAMS Accession No. ML050400613 ("2005 ACRS Transcript")	Dec. 22, 2011
RIV000023	RK-TC-2	NUREG/CR-6936, PNNL 16186, Probabilities of Failure and Uncertainty Estimate Information for Passive Components - a Literature Review (May 2007) ("NUREG/CR-6936")	Dec. 22, 2011
RIV000024	RK-TC-2	Entergy Engineering Report, Operating Experience Review Report, IP-RPT-06-LRD05, Rev. 3 (2008), IPEC00186046 ("Entergy Op Ex Rev Report")	Dec. 22, 2011
RIV000025	RK-TC-2	Daily DER Report, DER-01-01522, April 25, 2001, IPEC00020501 ("DER Report")	Dec. 22, 2011
RIV000026	RK-TC-2	Entergy Operations, Inc, Condition Report List, IPEC00185743 ("Condition Report List 1")	Dec. 22, 2011
RIV000027	RK-TC-2	Entergy Operations, Inc., Condition Report List, IPEC00092551 ("Condition Report List 2")	Dec. 22, 2011
RIV000028	RK-TC-2	Entergy Condition Report CR-IP2-2001-10525, IPEC00092616 ("Entergy CR-IP2-2001-10525")	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing	
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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000029	RK-TC-2	Entergy Condition Report CR-IP3-2006-02270, IPEC00025699 ("Entergy CR-IP3-2006-02270")	Dec. 22, 2011
RIV000030	RK-TC-2	Transcript of Meeting of Advisory Committee on Reactor Safeguards (Sept. 10, 2009), ADAMS Accession No. ML092670114, at 90-96 ("ACRS Mtg Transcript Sept 2009")	Dec. 22, 2011
RIV000031	RK-TC-2	Lynn R. Sykes, John G. Armbruster, Won-Young Kim, & Leonardo Seeber, Observations and Tectonic Setting of Historic and Instrumentally Located Earthquakes in the Greater New York City–Philadelphia Area, Bulletin of the Seismological Society of America, Vol. 98, No. 4, pp. 1696–1719, August 2008 ("Sykes Study")	Dec. 22, 2011
RIV000032	RK-TC-2	Generic Issue 199 (GI-199), Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States on Existing Plants Safety/Risk Assessment, August 2010, at Appendix D ("Seismic Sore-Damage Frequencies) ("NRC GI-199")	Dec. 22, 2011
RIV000033	RK-TC-2	Bill Dedman, What are the odds? US nuke plants ranked by quake risk, March 17, 2011 ("Dedman Article")	Dec. 22, 2011
RIV000034	RK-TC-1B	Dr.Hopenfeld Pre-filed Testimony	Dec. 22, 2011
RIV000035	RK-TC-1B; RK-TC-5	Dr. Hopenfeld Report	Dec. 22, 2011
RIV000036	RK-TC-1B; RK-TC-5	Westinghouse "EnvFat User's Manual Version 1" IPECPROP00056785	Dec. 22, 2011
RIV000037	RK-TC-1B; RK-TC-5	Official Transcript, ACRS Subcommittee, 12/6/2006	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3),	
		Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01	
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		Riverkeeper ("RIV") Hearing Exhibits	
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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
	Traditional Sylvanian		
RIV000038	RK-TC-1B; RK-TC-5	NRC IN 2011-04	Dec. 22, 2011
RIV000039	RK-TC-1B; RK-TC-5	Entergy Nuclear Vt. Yankee, Affidavit of Kenneth C. Chang, 5/12/08	Dec. 22, 2011
RIV000040	RK-TC-1B; RK-TC-5	Taylor, EPRI R & D Status Report, Jan/Feb 1983	Dec. 22, 2011
RIV000041	RK-TC-1B; RK-TC-5	Entergy, Table of Environmental Correction Actions for Metal Fatigue, 11/6/07	Dec. 22, 2011
RIV000042	RK-TC-1B; RK-TC-5	DC Cook Charging Nozzle LR Fatigue Evaluations, IPECPROP00061294	Dec. 22, 2011
RIV000043	RK-TC-1B; RK-TC-5	Diablo Canyon Unit 1 Insurge/Outsurge Eval, IPECPROP00061179	Dec. 22, 2011
RIV000044	RK-TC-1B; RK-TC-5	NRC Bulletin 88-08	Dec. 22, 2011
RIV000045	RK-TC-1B; RK-TC-5	NRC Bulletin 88-08 Supp. 1	Dec. 22, 2011
RIV000046	RK-TC-1B; RK-TC-5	NRC Bulletin 88-08 Supp. 2	Dec. 22, 2011
RIV000047	RK-TC-1B; RK-TC-5	NRC IN 97-46	Dec. 22, 2011
RIV000048	RK-TC-1B; RK-TC-5	Final Report of the NESC-Thermal Fatigue Project, EUR22763	Dec. 22, 2011
RIV000049	RK-TC-1B; RK-TC-5,	Entergy Indian Point U3, FAC, 3RF13 Outage, 2005	Dec. 22, 2011
	RK-TC-2		
RIV000050	RK-TC-1B; RK-TC-5	Westinghouse, WCAP-14950, IPECPROP00059247	Dec. 22, 2011
RIV000051	RK-TC-1B; RK-TC-5	Kwang Chu Kim, Journal of Mechanical Science/Technology, 2008	Dec. 22, 2011
RIV000052A- D	RK-TC-1B; RK-TC-5	Combustion Engineering, Inc., CENC-1110	Dec. 22, 2011
RIV000053	RK-TC-1B; RK-TC-5	Combustion Engineering, Inc., CENC-1122	Dec. 22, 2011
RIV000054	RK-TC-1B; RK-TC-5	letter from P. Bessette to D. Brancato, 10/18/11	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000055 RIV000056	RK-TC-1B; RK-TC-5 RK-TC-1B; RK-TC-5	Westinghouse CN-PAFM-09-64, IPECPROP00058077 Systems Standard Design Criteria, IPECPROP00059698	Dec. 22, 2011 Dec. 22, 2011
RIV000057	RK-TC-1B; RK-TC-5	RAI Indian Point U2 and U3 LRA, 2/10/11	Dec. 22, 2011
RIVR00058 RIV000059	RK-TC-1B; RK-TC-5 RK-EC-3/CW-EC-1	Response to RAI, Indian Point U2 and U3, 3/28/11 Riverkeeper and Clearwater Initial Statement of Position Regarding Consolidated Contention RK-EC-3/CW-EC-1 (Spent Fuel Pool Leaks) ("RK-EC-3-CW-EC-1 SOP")	Oct. 9, 2012 Dec. 22, 2011
RIV000060	RK-EC-3/CW-EC-1	Testimony of Arnold Gundersen on Consolidated Contention RK-EC-3/CW-EC-1 – Spent Fuel Pool Leaks ("Gundersen Testimony")	Dec. 22, 2011
RIV000061	RK-EC-3/CW-EC-1	Testimony of Gillian Stewart on Consolidated Contention RK-EC-3/CW-EC-1 – Spent Fuel Pool Leaks ("Stewart Testimony")	Dec. 22, 2011
RIV000062	RK-EC-3/CW-EC-1	Curriculum Vitae of Arnold Gundersen ("Gundersen CV")	Dec. 22, 2011
RIV000063	RK-EC-3/CW-EC-1	Curriculum Vitae of Gillian Stewart ("Stewart CV")	Dec. 22, 2011
RIV000064	RK-EC-3/CW-EC-1	NUREG-1437, Revision 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants (July 2009) Draft Report for Comment ("GEIS Update")	Dec. 22, 2011
RIV000065	RK-EC-3/CW-EC-1	U.S. EPA, Radionuclides in Drinking Water: A Small Entity Compliance Guide (February 2002)	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing	
		Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000066	RK-EC-3/CW-EC-1	GZA, GeoEnvironmental, Inc., Hydrogeologic Site Investigation Report, Indian Point Energy Center, January 7, 2008, IPEC00195418	Dec. 22, 2011
RIV000067	RK-EC-3/CW-EC-1	Indian Point Nuclear Generating Units 1 & 2 – NRC Inspection Report Nos. 05000003/2007010 and 05000247/2007010, EA-08-088, May 13, 2008	Dec. 22, 2011
RIV000068	RK-EC-3/CW-EC-1	Entergy, Groundwater Investigation Executive Summary, Indian Point Energy Center, Buchanan, NY (January 2008)	Dec. 22, 2011
RIV000069	RK-EC-3/CW-EC-1	Indian Point Nuclear Generating Unit 2 – NRC Special Inspection Report No. 05000247/2005011, March 16, 2006	Dec. 22, 2011
RIV000070	RK-EC-3/CW-EC-1	Indian Point Energy Center Status Report (Sept. 6, 2007)	Dec. 22, 2011
RIV000071	RK-EC-3/CW-EC-1	In the Matter of Entergy Nuclear Indian Point 2, LLC, and Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations Inc's Joint Application for CWA § 401 Water Quality Certification, Prefiled Testimony of Matthew J. Barvenik, Issue for Adjudication No. 3 – Radiological Materials (July 22, 2011)	Dec. 22, 2011
RIV000072	RK-EC-3/CW-EC-1	E-mail from Michael Rutkoske to Steven Verrochi (Entergy), Re: SFP Exams - What's Next? (Nov. 19, 2005), IPEC00065830	Dec. 22, 2011
RIV000073	RK-EC-3/CW-EC-1	Entergy, U2 SFP Leak Monitoring Wells and Underground Piping (3/31/06), IPEC00063518	Dec. 22, 2011

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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000074 RIV000075	RK-EC-3/CW-EC-1 RK-EC-3/CW-EC-1	Entergy, Problem Development Sheet – Groundwater, IPEC00207416 E-mail from Ronald Sachatello to Donald Mayer (Entergy), Joseph Adler (TLG), Gary Hinrichs (Entergy), Re: IS THE POOL LEAK OFF COLLECTION BOX EFFECTIVE?, IPEC00063351	Dec. 22, 2011 Dec. 22, 2011
RIVR00076	RK-EC-3/CW-EC-1	GZA, GeoEnvironmental, Inc. Final IPEC Quarterly Long-Term Groundwater Monitoring Report, Quarter Two 2010 (Report No. 10) (February 15, 2011), IPEC00227561	Oct. 1, 2012
RIV000077	RK-EC-3/CW-EC-1	Entergy Chart of Leak Locations, I PEC00059360	Dec. 22, 2011
RIV000078	RK-EC-3/CW-EC-1	IPEC Site Management Manual, IP-SMM, CY-110, Rev. 1, 8.6 RGWMP Quarterly Integrated Review Checklist (Quarter 1, 2009), IPEC00225217	Dec. 22, 2011
RIV000079	RK-EC-3/CW-EC-1	Annie Correal, Indian Pt. Broken Pipe Spurs Safety Worries, THE NEW YORK TIMES (March 1, 2009)	Dec. 22, 2011
RIV000080	RK-EC-3/CW-EC-1	IPEC Site Management Manual, IP-SMM, CY-110, Rev. 3, 8.6 RGWMP Quarterly Integrated Review Checklist (Quarter 1, 2010), IPEC00225219	Dec. 22, 2011
RIV000081	RK-EC-3/CW-EC-1	IPEC Site Management Manual, IP-SMM, CY-110, Rev. 1, 8.6 RGWMP Quarterly Integrated Review Checklist (Quarter 2, 2010), IPEC00225223	Dec. 22, 2011
RIV000082	RK-EC-3/CW-EC-1	Entergy, Nuclear Management Manual, EN-MA-125, Rev. 4, Attachment 9.1, Initial Investigation, Troubleshooting Plan for H-3 Investigation, Storm Drain System A, March/April 2009, IPEC00194517	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000083	RK-EC-3/CW-EC-1	IPEC Site Management Manual, IP-SMM, CY-110, Rev. 3, 8.6 RGWMP Quarterly Integrated Review Checklist (Quarter 4, 2010), IPEC00233519	Dec. 22, 2011
RIV000084	RK-EC-3/CW-EC-1	IPEC Site Management Manual, IP-SMM, CY-110, Rev. 4, 10.7 RGWMP Quarterly Integrated Review Checklist (Quarter 1, 2011), IPEC00233515	Dec. 22, 2011
RIV000085	RK-EC-3/CW-EC-1	Indian Point Nuclear Generating Unit 3 – NRC Integrated Inspection Report 05000286/2011004 (November 7, 2011)	Dec. 22, 2011
RIV000086	RK-EC-3/CW-EC-1	Entergy correspondence, e-mails regarding approach to groundwater contamination, IPEC00067228, IPEC00065510, IPEC00130549, IPEC00062936	Dec. 22, 2011
RIV000087	RK-EC-3/CW-EC-1	Potential Sources of Tritium at IPEC & Inspection Method, IPEC00065506	Dec. 22, 2011
RIV000088	RK-EC-3/CW-EC-1	Supplemental Report of the Public Oversight Panel Regarding the Comprehensive Reliability Assessment of the Vermont Yankee Nuclear Power Plant, July 20, 2010	Dec. 22, 2011
RIV000089	RK-EC-3/CW-EC-1	GAO Report to Congressional Requesters, Nuclear Regulatory Commission, Oversight of Underground Piping Systems Commensurate with Risk, but Proactive Measures Could Help Address Future Leaks, GAO-11-563 (June 2011)	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000090	RK-EC-3/CW-EC-1	Entergy Groundwater Well Data, Quarter 3, 2010, IPEC, IPEC00225100	Dec. 22, 2011
RIV000091	RK-EC-3/CW-EC-1	Liquid Radioactive Release Lessons Learned Task Force Final Report, U.S. NRC (September 1, 2006)	Dec. 22, 2011
RIV000092	RK-EC-3/CW-EC-1	Coastal Fish & Wildlife Habitat Rating Form, Haverstraw Bay	Dec. 22, 2011
RIV000093	RK-EC-3/CW-EC-1	National Research Council, Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII – Phase 2 (2006)	Dec. 22, 2011
RIV000094	RK-EC-3/CW-EC-1	Entergy E-mail from David Winslow (GZA) to Donald Mayer (Entergy), G. Hinrichs (Entergy), Re: Remedial Report (May 19, 2006), IPEC00064221	Dec. 22, 2011
RIV000095	RK-EC-3/CW-EC-1	Groundwater Investigation '06 Quarter 4 Activities and Results, IPEC00063899	Dec. 22, 2011
RIV000096	RK-EC-3/CW-EC-1	Entergy E-mail from Kathleen McMullin (Entergy) to various, Re: IPEC Status Report for Dec. 21	Dec. 22, 2011
RIV000097	RK-EC-3/CW-EC-1	Entergy Document, "Unit 1 Status for ENC Presentation notes," "Groundwater Status," IPEC00062939	Dec. 22, 2011

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000098	RK-EC-3/CW-EC-1	Letter from Kathryn Sutton (Counsel for Entergy) to Deborah Brancato (Riverkeeper), Re: Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR (June 24, 2011)	Dec. 22, 2011
RIV000099	RK-EC-3/CW-EC-1	In the Matter of Entergy Nuclear Indian Point 2, LLC, and Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations Inc's Joint Application for CWA § 401 Water Quality Certification, Combined Prefiled Rebuttal Testimony of Thomas C. Esselman, Ph.D., Matthew J. Barvenik, and Owen Hoffman, Ph.D., Radiological – Issue for Adjudication No. 3 (October 4, 2011)	Dec. 22, 2011
RIV000100	RK-EC-3/CW-EC-1	E-mail From Dara Gray (Entergy) to J. Noggle (NRC) (Jan. 24, 2007), Re: Historical Sr Data (Exhibit RIV000100)	Dec. 22, 2011
RIV000101	RK-EC-3/CW-EC-1	Haverstraw Water Supply Project DEIS, Draft EIS Chapter 2	Dec. 22, 2011
RIV000102	RK-TC-5	Pre-Filed Testimony of Joram Hopenfeld in Support of RK-TC-5	June 19, 2012
RIV000103	RK-TC-5; RK-TC-1B	Hopenfeld, Small Sodium-to-Gas Leak Behavior in Relation to LMFBR Leak Detection System Design (International Conference on Liquid Metal Technology, May 3-6, 1976)	June 19, 2012

	Docket Nos. 50-247-LR and 50-286-1 Evidentian	Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000104	RK-TC-5; RK-TC-1B	Memorandum from S. Collins (NRR) to W. Travers (EDO), Re: Steam Generator Action Plan Revision to Address Differing Professional Opinion on Steam Generator Tube Integrity (WITS ITEM 200100026), May 11, 2011	June 19, 2012
RIV000105	RK-TC-5; RK-TC-1B	NUREG-1740, Voltage-Based Alternative Repair Criteria, A Report to the Advisory Committee on Reactor Safeguards by the Ad Hoc Subcommittee on a Differing Professional Opinion (March/Feb. 2001)	June 19, 2012
RIV000106	RK-TC-5; RK-TC-1B	Associated Press, Nuke inspectors focus on 'unusual' wear on tubes, Fox News.com, February 3, 2012	June 19, 2012
RIV000107	RK-TC-2	Riverkeeper Revised Statement of Position Regarding Contention RK-TC-2 (Flow Accelerated Corrosion)	June 29, 2012
RIV000108	RK-TC-2	Prefiled Rebuttal Testimony of Dr. Joram Hopenfeld Regarding Riverkeeper Contention TC-2 - Flow Accelerated Corrosion	June 29, 2012
RIV000109	RK-TC-2	Official Transcript of Proceedings, Nuclear Regulatory Commission, Entergy Nuclear Vermont Yankee, 50-271-LR; ASLBP No. 06-849-03-LR, Newfane, Vermont, pages 1451-1741 (July 24, 2008), at 1477 (excerpt)	June 29, 2012

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RIV000110	RK-TC-2	Stéphane Trevin & Marie-Pierre Moutrille, Optimization of EDF's NPPs Maintenance due to Flow Accelerated Corrosion and BRT-CICEROTM Improvement by NDT Results Analysis (18th World Conference on Nondestructive Testing, 16-20 April 2012, Durban, South Africa)	June 29, 2012
RIV000111	RK-TC-2	Hopenfeld, Demonstration of Flawed Presentation of CHECWORKS Data	June 29, 2012
RIV000112	RK-TC-2	Graphs from CHECWORKS Reports (Excerpts)	June 29, 2012
RIV000113	RK-TC-2	In the Matter of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), Docket No. 50-271 –LR, ASLBP No. 06-849-03-LR, Testimony of Jeffrey S. Horowitz and James C. Fitzpatrick on NEC Contention 4 – Flow-Accelerated Corrosion (May 12, 2008), at 12-13 (excerpt)	June 29, 2012
RIV000114	RK-TC-1B	Prefiled Rebuttal Testimony of Dr. Joram Hopenfeld Regarding Contention NYS-26B/TC-1B - Metal Fatigue	June 29, 2012
RIV000115	RK-TC-1B; RK-TC-5	NRC Bulletin No. 88-11: Pressurizer Surge Line Thermal Stratification (December 20, 1988)	June 29, 2012
RIV000116	RK-TC-1B; RK-TC-5	Audit of NRC's License Renewal Program, OIG-07-A-15, September 6, 2007	June 29, 2012

		Entergy Nuclear Operations, Inc. (Indian Point Units 2 and 3), Docket Nos. 50-247-LR and 50-286-LR, ASLBP No. 07-858-03-LR-BD01 Evidentiary Hearing Riverkeeper ("RIV") Hearing Exhibits	
RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000117	RK-TC-1B; RK-TC-5	Makoto Higuchi, Takao Nakamura, & Yasuaki Sugie, Development of an Environmental Fatigue Evaluation Method for Nuclear Power Plants in JSME Code*, J. of Environment and Engineering Vol. 6, No. 2, 2011	June 29, 2012
RIV000118	RK-TC-1B; RK-TC-5	G. T. Yahr and R. C. Gwaltney (Oak Ridge National Laboratory), Ao K. Richardson and W. L. Server (EG&G Idaho, Inc), Case Study of the Propagation of a Small Flaw Under PWR Loading Conditions and Comparison with the ASME Code Design Life, Comparison of the ASME Code Section III and XI, CONF-860722—12, TI86 005150	June 29, 2012
RIV000119	RK-TC-1B; RK-TC-5	International Atomic Energy Agency, Applicability of the leak before break concept, Report of the IAEA Extrabudgetary Programme on the Safety of WWER-440 Model 230 Nuclear Power Plants, Status report on a generic safety issue, IAEA-TECDOC-710, ISSN 1011-4289 (June 1993)	June 29, 2012
RIV000120	RK-EC-3/CW-EC-1	Riverkeeper and Hudson River Sloop Clearwater Revised Statement of Position Regarding Consolidated Contention RK-EC-3/CW-EC-1 (Spent Fuel Pool Leaks)	July 13, 2012
RIVR00090	RK-EC-3/CW-EC-1	Entergy Groundwater Well Data, Quarter 2, 2011, IPEC00233539 (CORRECTED)	July 13, 2012
RIV000121 RIV000122	RK-EC-3/CW-EC-1 RK-EC-3/CW-EC-1	Entergy Groundwater Well Data, Quarter 3, 2011, IPEC00239720 Entergy Groundwater Well Data, Quarter 4, 2011, IPEC00257769	July 13, 2012 July 13, 2012

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RIV000123 RIV000124	RK-EC-3/CW-EC-1 RK-EC-3/CW-EC-1	Entergy Groundwater Well Data, Quarter 1, 2012, IPEC00261760 NOAA Fact Sheet, Atlantic Sturgeon New York Bight Distinct Population Segment: Endangered	July 13, 2012 July 13, 2012
RIV000125 RIV000126	RK-EC-3/CW-EC-1 RK-EC-3/CW-EC-1	Declaration of Phillip Musegaas (July 13, 2012) In the Matter of: Entergy Nuclear Indian Point 2, LLC, and Entergy Indian Point 3, LLC, For a State Pollution Discharge Elimination System Permit Renewal and Modification, DEC No.: 3-5522-00011/00004, SPDES No.: NY-0004472; Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations, Inc. Joint Application for CWA § 401 Water Quality Certification, DEC App. Nos. 3-5522-00011/00030 (IP2), 3-5522-00105/00031, Transcript of Arbitration before Daniel P. O'Connell, ALJ, Maria E. Villa, ALJ, Reporter: Alan H. Brock, RDR, CRR, Farmer Arsenault Brock LLC (January 23, 2012, pages 3895-4125) EXCERPT	July 13, 2012 July 13, 2012
RIV000127 RIV000128	RK-TC-2	Digby D. Macdonald, The Point Defect Model for the Passive State, J. of the Electrochemical Society, Vol. 139, Issue No. 12 (Dec. 1992) Bryan Poulson and Russel Robinson, The Use of A Corrosion Process to Obtain Mass Transfer Data, Science, Vol. 26, No.4, pp. 265-280 (1986)	Oct. 11, 2012 Oct. 11, 2012

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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000129	RK-TC-2	G.J. Bignold, K. Garbett, R. Garnsey, & I.S. Woolsey, Erosion/Corrosion in Nuclear Steam Generators, in Water Chemistry of Nuclear Reactor Systems 5, Paper 1 (British Nuclear Engineering Society, 1980	Oct. 11, 2012
RIV000130	RK-TC-2	Entergy Ultrasonic Examination Report, IPEC00020853	Oct. 11, 2012
RIV000131	RK-TC-2	Jianrong Wang, Siamack A. Shirazi, A CFD based correlation for mass transfer coefficient in elbows, Int'l J. of Heat and Mass Transfer, 44 (2001) 1817-1822	Oct. 11, 2012
RIV000132	RK-TC-2; RK-TC-5	Excerpt of IP3, RO13 FAC Inspection Report (2005), IP00044076	Oct. 17, 2012
RIV000133	RK-TC-2; RK-TC-5	Excerpt of IP3, RO15 FAC Inspection Report (2009), IPEC00213685	Oct. 17, 2012
RIV000134	RK-TC-5	Prefiled Rebuttal Testimony of Dr. Joram Hopenfeld Regarding Contention NYS-38/RK-TC-5	Nov. 9, 2012
RIV000135	RK-TC-5; RK-TC-1B	Entergy Ultrasonic Examination Reports, IPEC00020933	Nov. 9, 2012
RIV000136	RK-TC-5; RK-TC-1B	New York Power Authority Ultrasonic Examination Report, Report No.: 99UT155, IPEC00021837	Nov. 9, 2012
RIV000137	RK-TC-5; RK-TC-1B	New York Power Authority Ultrasonic Examination Report, Report No.: 99UT251, IPEC00021885	Nov. 9, 2012

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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000138	RK-TC-5; RK-TC-1B	J.S. Kim & J.S. Seo, Development of Engineering Formulae for Stress Concentration Factors of Local Wall Thinning in CANDU Feeder Pipe Under Pressure, Proceedings of the ASME 2011 Pressure Vessels & Piping Division Conference, PVP2011, July 17-21, 2011, Baltimore, Maryland, USA, PVP2011-57930	Nov. 9, 2012
RIV000139	RK-TC-5; RK-TC-1B	M.J. Jhung, Fatigue Analysis of a Reactor Pressure Vessel For SMART, Nuclear Engineering and Technology, Vol. 44, No. 6 (August 2012)	Nov. 9, 2012
RIV000140	RK-TC-5; RK-TC-1B	François Vaillant, et al., Influence of a Cyclic Loading on the Initiation and Propagation of PWSCC in Weld Metal 182, Proceedings of the 12th International Conference on Environmental Degradation of Materials in Nuclear Power System – Water Reactors – Edited by T.R. Allen, P.J. King, and L. Nelson TMS (The Minerals, Metals & Materials Society), 2005	Nov. 9, 2012
RIV000141	RK-TC-5; RK-TC-1B	E.C. Eggertson, et al, Turbulent Mixing and its Effects on Thermal Fatigue in Nuclear Reactors, World Academy of Science, Engineering and Technology 52 (2011)	Nov. 9, 2012
RIV000142	RK-TC-5; RK-TC-1B	Supplemental Prefiled Written Testimony of Dr. Joram Hopenfeld Regarding Contention NYS-26B/RK-TC-1B	June 9, 2015

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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000143	RK-TC-5; RK-TC-1B	Supplemental Prefiled Written Testimony of Dr. Joram Hopenfeld Regarding Contention NYS-38/RK-TC-5	June 9, 2015
RIV000144	RK-TC-5; RK-TC-1B	Supplemental Report of Dr. Joram Hopenfeld in Support of Contention NYS-26B/RK-TC-1B and Amended Contention NYS-38/RK-TC-5 (Non-Public/Non-Redacted) [PROPRIETARY]	June 9, 2015
RIV000145	RK-TC-5; RK-TC-1B	K L Murty, Materials Ageing and Degradation in Light Water Reactors (Woodhead Publishing Ltd. 2013) [EXCERPT; COPYRIGHT]	June 9, 2015
RIV00146A-B	RK-TC-5; RK-TC-1B	NUREG-1150, Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants (1990), available at http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1150/	June 9, 2015
RIV000147	RK-TC-5; RK-TC-1B	NUREG-75/014 (WASH-1400), Reactor Safety Study: An Assessment of Accident Risks in U.S. Commercial Nuclear Power Plants (1975)	June 9, 2015
RIV000148	RK-TC-5; RK-TC-1B	Declaration of Dr. Joram Hopenfeld (February 12, 2015) [PROPRIETARY]	June 9, 2015
RIV000149	RK-TC-5; RK-TC-1B	Material Aging Institute International Conference on Plants Materials Degradations, Chemical conditioning of Light Water reactors Systems (2008), IPEC00265853	June 9, 2015
RIV000150	RK-TC-5; RK-TC-1B	ANL, Report on Assessment of Environmentally-Assisted Fatigue for LWR Extended Service Conditions, ANL-LWRS-47 (September 2011)	June 9, 2015

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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000151	RK-TC-5; RK-TC-1B	NASA, Nuclear and Space Radiation Effects on Materials, NASA SP-8053 (June 1970), available at, http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19710015558.pdf	June 9, 2015
RIV000152	RK-TC-5; RK-TC-1B	G. E. Korth & M. D. Harper, Effects of Neutron Radiation on the Fatigue and Creep/Fatigue Behavior of Type 308 Stainless Steel Weld Metal at Elevated Temperatures (Seventh ASTM International Symposium on Effects of Radiation on Structural Materials, June 1974), available at, http://www.osti.gov/scitech/servlets/purl/4294682	June 9, 2015
RIV000153	RK-TC-5; RK-TC-1B	Argonne National Laboratory, Corrosion and Mechanics of Materials, Light Water Reactors, Irradiation-Induced Stress Corrosion Cracking of Austenitic Stainless Steels, http://www.ne.anl.gov/capabilities/cmm/highlights/ssc_austenic_ss.html (last visited June 2, 2015)	June 9, 2015
RIV000154	RK-TC-5; RK-TC-1B	S. Mohanty, S. Majumdar, & K. Natesan, Argonne National Laboratory, A Review of Stress Corrosion Cracking/Fatigue Modeling for Light Water Reactor Cooling System Components (June 2012)	June 9, 2015
RIV000155	RK-TC-5; RK-TC-1B	S. McKelvey & A. Fatemi, "Effect of Forging Surface on Fatigue Behavior of Steels: A Literature Review (University of Toledo)	June 9, 2015

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RIV Exhibit #	Contentions Addressed by Exhibit	Exhibit Name	Exhibit Submission Date
RIV000156	RK-TC-5; RK-TC-1B	Westinghouse, Indian Point Unit 2 Reactor Vessel Core Support Pad Fatigue Reevaluation, CN-MRCDA-13-11, IPECPROP00079179 [PROPRIETARY]	June 9, 2015
RIV000157	RK-TC-5; RK-TC-1B	Pilkey & Pilkey, Peterson's Stress Concentration Factors, 3rd Edition, ISBN: 978-0-470-04824-5 (2008) [EXCERPT; COPYRIGHT]	June 9, 2015
RIV000158	RK-TC-5; RK-TC-1B	Herve Bodineau & Thierry Sollier, Tube support plate clogging up of French PWR steam generators, Eurosafe, IRSN – Reactor Safety Division, BP17 (2009)	June 9, 2015
RIV000159	RK-TC-5; RK-TC-1B	NUREG/BR-0058, Rev.4, Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission (2004), available at http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0058/br0058r4.pdf	June 9, 2015
RIV000160	RK-TC-5; RK-TC-1B	U.S. NRC, Commissioner Apostolakis, Application of Risk Assessment and Management to Nuclear Safety (DOE Nuclear Safety Workshop, September 2012), available at, http://energy.gov/sites/prod/files/2013/12/f5/Apostolakis.pdf	June 9, 2015
RIV000161	RK-TC-5; RK-TC-1B	Report of Dr. Joram Hopenfeld in Response to Entergy and NRC Staff Testimony Regarding Contention NYS-26/RK0TC-1B and Amended Contention NYS-38/RK-TC-5 [PROPRIETARY]	Sept. 9, 2015

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RIV Exhibit #	Contentions Addressed by Exhibit	Riverkeeper ("RIV") Hearing Exhibits Exhibit Name	Exhibit Submission Date
RIV000162	RK-TC-5; RK-TC-1B	Prefiled Rebuttal Testimony of Dr. Joram Hopenfeld Regarding Contention NYS-38/RK-TC-5 [PROPRIETARY]	Sept. 9, 2015
RIV000163	RK-TC-5; RK-TC-1B	Prefiled Rebuttal Testimony of Dr. Joram Hopenfeld Regarding Contention NYS-26B/RK-TC-1B [PROPRIETARY]	Sept. 9, 2015
RIV000164	RK-TC-5; RK-TC-1B	NUREG-1740, ACRS, Voltage-Based Alternative Repair Criteria: A Report to the Advisory Committee on Reactor Safeguards by the Ad Hoc Subcommittee on a Differing Professional Opinion (2001), available at, http://pbadupws.nrc.gov/docs/ML0107/ML010750315.pdf	Sept. 9, 2015
RIV000165	RK-TC-5; RK-TC-1B	U.S. NRC, Office of the Inspector General, OIG-07-A-15, Audit of NRC's License Renewal Program (September 6, 2007), available at, http://pbadupws.nrc.gov/docs/ML0724/ML072490486.pdf	Sept. 9, 2015