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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
CAROLINA POWER & LIGHT)	Docket No. 50-400-LA
COMPANY)	
(Shearon Harris Nuclear Power Plant))	ASLBP No. 99-762-02-LA

**APPLICANT'S THIRD SUPPLEMENTAL RESPONSE TO
THE BOARD OF COMMISSIONERS OF ORANGE COUNTY'S
FIRST SET OF DISCOVERY REQUESTS**

Pursuant to 10 C.F.R. § 2.740(e), Applicant Carolina Power & Light Company ("CP&L") files this third supplement to Applicant's responses to the August 5, 1999 "Orange County's First Set of Discovery Requests Directed to the Applicant" ("BCOC's First Discovery Requests"). This third supplement provides additional responses to General Interrogatory 3 in BCOC's First Discovery Requests.

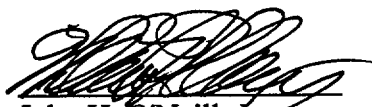
GENERAL INTERROGATORY NO. 3. For each admitted Orange County contention, identify each expert on whom CP&L intends to rely on in its written filing for the Subpart K proceeding described in the Board's July 29, 1999 Memorandum and Order, the general subject matter on which each expert is expected to provide sworn affidavits and declarations for the written filing, the qualifications of each expert whom CP&L expects to provide sworn affidavits and declarations for the written filing, a list of all publications authored by the expert within the preceding ten years, and a listing of any other cases in which the expert has testified as an expert at a trial, hearing or by deposition within the preceding four years.

APPLICANT'S RESPONSE: The Applicant supplements its response to BCOC's First Discovery Requests by providing a list of publications authored by Mr.

George Licina within the preceding ten years. Mr. Licina was identified as a person upon whom Applicant expects to rely in the Applicant's October 1, 1999 supplemental response to General Interrogatory No. 3. A list of publications for Mr. Licina is attached to this response.

With respect to Stanley E. Turner, identified in the Applicant's September 24, 1999 supplemental response to General Interrogatory No. 3, Dr. Turner has not authored anything that has been published within the preceding 10 years.

Respectfully submitted,



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Dated: October 13, 1999

PUBLICATIONS AUTHORED BY GEORGE LICINA

G. J. Licina, "A Review of Microbiologically Induced Corrosion in Nuclear Power Plant Systems," Corrosion '88, Paper 268, NACE, 1988.

G. J. Licina, "An Overview of Microbiologically Influenced Corrosion in Nuclear Power Plant Systems," Materials Performance, October 1989, Vol. 28, No.10, pp. 55-60.

G. J. Licina and D. Cubicciotti, "Microbial-Induced Corrosion in Nuclear Power Plant Materials," Journal of Metals, December 1989.

G. J. Licina, M. L. Pytel, and N. S. Hirota, "An Innovative Method for Mitigation of MIC in Stainless Steel Weldments," Corrosion '90, Paper 114, NACE, 1990.

G. J. Licina and R. S. Pathania, "The Effect of Chromates on the Intergranular Stress Corrosion Cracking of Boiling Water Reactor Components," Corrosion '92, Paper 85, NACE, 1992.

C. E. Carney, G. J. Licina, C. P. Sturrock, D. Cubicciotti, and B. C. Syrett, "MICPro – Software for Assessing Microbiologically Influenced Corrosion in Power Plants," EPRI Seminar on Expert System Applications for the Electric Power Industry, Boston, MA, 1991.

G. J. Licina, A. J. Giannuzzi, J. A. Nevshemal, and T. Naughton, "Remediation of Nuclear Plant Piping and Components by Weld Reinforcement Repairs and Weld Buildups," Fifth International Symposium on Environmental Degradation of Materials in Nuclear Power Systems, American Nuclear Society, 1991.

P. C. Riccardella, S. S. Tang, G. J. Licina, K. L. Chen, W. R. Brose, T. P. Sherlock, J. Stein, and L. Nottingham, "Development of a Generator Retaining Ring Life Assessment Code," EPRI Steam Turbine and Generator NDE, Life Assessment and Maintenance Workshop, Charlotte, NC, July 1991.

G. J. Licina, S. Anderson, M. K. Maner, and G. L. Ward, "In-Plant Electrochemical Studies of Service Water System Materials," Corrosion '91, Paper 277, NACE, 1991.

G. J. Licina, G. Nekoxsa, and G. Ward, "An Electrochemical Method for Monitoring the Development of Biofilms in Cooling Water," International Conference on Microbiologically Influenced Corrosion, Knoxville, TN, October 1990.

S. W. Borenstein and G. J. Licina, "Avoid MIC-Related Problems in Nuclear Cooling Systems," Power, June 1990.

G. J. Licina, C. E. Carney, D. Cubicciotti, and R. W. Lutey, "MICPro – Predictive Software for Microbiologically Influenced Corrosion," Corrosion '90, Paper 536, NACE, 1990.

G. J. Licina, D. Cubicciotti, "Microbial Induced Corrosion," Proceedings of a Workshop on Microbial Induced Corrosion Held in Charlotte, NC, October 18, 1988, EPRI, Exploratory Research Project 8000-26, EPRI-ER-6345.

G. J. Licina, "Microbiologically Influenced Corrosion in Nuclear Power Plants – A Review of Susceptibility and Mitigation Methods," Corrosion '90, Paper 527, NACE 1990.

G. J. Licina, G. Nekoksa, R. L. Howard, "An Electrochemical Method for On-Line Monitoring of Biofilm Activity in Cooling Water Using the BI-GEORGE Probe," ASTM STP 1232, Philadelphia, 1994, pp. 118-127.

G. J. Licina, G. Nekoksa, R. L. Howard, "On-Line Monitoring of Biofilm Activity at the Browns Ferry Nuclear Plant," EPRI Corrosion in Electric Power Plant Service Water Systems Workshop, April 22-24, 1992, Clearwater, Florida.

G. J. Licina, G. Nekoksa, R. L. Howard, "The BI-GEORGE Probe – An Electrochemical Method for On-Line Monitoring of Biofilm Activity," NSF – CONICET Workshop "Biocorrosion and Biofouling", Mar del Plata, Argentina, November, 1992.

G. J. Licina, G. Nekoksa, "An Electrochemical Method for On-Line Monitoring of Biofilm Activity," NACE Paper Number Corrosion '93, Paper 403, NACE 1993.

G. J. Licina, G. Nekoksa, "On-Line Monitoring of Microbiologically Influenced Corrosion in Power Plant Environments," NACE Paper Corrosion '93, Paper 297, NACE 1993.

G. J. Licina, G. Nekoksa, G. L. Ward, R. L. Howard, D. Cubicciotti, "Monitoring Corrosion and Biofilm Formation in Nuclear Power Plants Using Electrochemical Methods," Sixth International Symposium on Environmental Degradation of Materials in Nuclear Power Systems – Water Reactors, San Diego, California, 1993.

G. J. Licina, S. Dietch, R. J. DiLetto, "Deposition and Corrosion in Stainless Steel Heat Exchanger Tubes," EPRI Service Water System Reliability Improvement Symposium, May 1993.

G. J. Licina, and S. W. Borenstein, "Nuclear Service Water System Piping – Replacements and Refurbishment," Power, December 1993.

G. J. Licina, G. Nekoksa, "Experience with On-Line Monitoring of Biofilms in Power Plant Environments," Corrosion '94, Paper 257, NACE 1994.

G. J. Licina, P. R. Puckorius, G. Nekoksa, "Corrosion and Deposition Monitoring – Recent Developments," Corrosion '94, Paper 350, NACE 1994.

G. J. Licina, S. W. Borenstein, "Service Water Systems – Replacement and Refurbishments Due To Corrosion-Related Problems," ASME Pressure Vessel and Piping Conference, March 1994.

G. J. Licina, S. Anderson, M. Maner, G. L. Ward, "In-Plant Electrochemical Studies of Service Water System Materials," Corrosion '91, Paper 277, NACE 1991.

G. Licina, G. Nekoksa, G. Ward, "An Electrochemical Method for Monitoring The Development of Biofilms in Cooling Water," International Congress on Microbiologically Influenced Corrosion, October 1990.

S. W. Borenstein, and G. J. Licina, "Monitoring And Inspecting Biofouled Surfaces," Third European Federation of Corrosion Workshop on Microbial Corrosion, 1994.

S. W. Borenstein, and G. J. Licina, "Inspecting And Monitoring For Biofouling And Corrosion," International Joint Power Generation Conference, PWR - Vol. 25, 1994.

G. J. Licina, G. Nekoksa, and R. Howard, "Experience With On-Line Monitoring Of Biofilms In Nuclear Service Water System Environments," 7th Annual EPRI Service Water System Reliability Improvement Seminar, 1994.

S. W. Borenstein, and G. J. Licina, "Detecting Microbiologically Influenced Corrosion Using Innovative Monitoring And Inspection Techniques," UK Corrosion '94.

G. J. Licina, and G. Nekoksa, "The Influence of Water Chemistry and Biocide Additions on the Response of an On-Line Biofilm Monitor," NACE International, Corrosion '95, Paper 527, NACE, 1995.

G. J. Licina, and G. Nekoksa, "On-Line Monitoring of Biofilm Formation for the Control and Prevention of Microbiologically Influenced Corrosion," International Symposium on Microbiologically Influenced Corrosion, NACE, 1995.

L. H. Bisbee, S. T. Burns, and G. J. Licina, "Detection Of Microbiologically Influenced Corrosion (MIC) Utilizing A Focused Array Transducer System (FATS)," 8th EPRI Service Water Systems Reliability Improvement Seminar, 1995.

W. E. Garrett, Jr., and G. J. Licina, "Monitoring Microfouling In A Once-Through Service Water System," 8th EPRI Service Water System Reliability Improvement Seminar, 1994.

G. J. Licina, and G. Nekoksa, "Monitoring Biofilm Formation In Power Plant Environments," Corrosion Testing in Natural Waters, ASTM STP 1300, 1996.

G. J. Licina, and G. Nekoksa, "Monitoring Biofilm Formation In A Brackish Water Cooled Power Plant Environment," Corrosion '96, Paper 581, 1996.

G. J. Licina, "MIC in the Power Industry," NACE International, to be published, 1999.

G. J. Licina, L. E. Willertz, B. M. Swoyer, and R. S. Tombaugh, "Monitoring Corrosion And Biofilm Formation In The Emergency Service Water System At Susquehanna," 9th EPRI Service Water Reliability Improvement Seminar, June 1996.

G. J. Licina, "Detection and Control of Microbiologically Influenced Corrosion," International Water Conference, IWC-96-68, 1996.

G. J. Licina, and P. R. Puckorius, "Advanced Monitoring Methods for Corrosion and Fouling in Cooling Tower Systems," EPRI Cooling Tower Conference, 1997.

C. S. Ahlgren, S. W. Borenstein, G. J. Licina, "Inspection of Aging Steel Penstocks," WATERPOWER '97.

G. J. Licina, "Monitoring System Fouling with a Model Heat Exchanger and An Electrochemical Biofilm Activity Probe," American Power Conference, Illinois Institute of Technology, 1998.

T. P. Zintel, G. J. Licina, and T. R. Jack, "Breakthroughs in MIC Monitoring," NACE International, to be published 1999.

G. J. Licina, L. H. Bisbee, and P. Puckorius, "Inspection for Corrosion and Environmental Degradation," EPRI Corrosion and Degradation Conference, May, 1999.

G. J. Licina and J. J. Drasler, "Condition Assessment - River Water Systems", 12th EPRI Service Water System Reliability Improvement, 1999.

G. J. Licina, G. Nekoksa, R. L. Howard, "An Electrochemical Method For On-Line Monitoring of Biofilm Activity in Cooling Water," Corrosion '92, Paper 177, NACE, 1992.

H. L. Gustin, G. J. Licina, C. H. Griffin, "Development of Flaw Tolerance Diagrams for Steam Generator Welds at a Nuclear Power Plant," ASME, PVP-Volume 240, 1992.

G. J. Licina, G. Nekoksa, "An Electrochemical Method For On-Line Monitoring of Biofilm Activity," Corrosion '93, Paper 403, NACE, 1993.

S. W. Borenstein, G. J. Licina, "An Overview of Monitoring Techniques for the Study of Microbiologically Influenced Corrosion," Corrosion '94, Paper 611, NACE, 1994.

G. J. Licina, G. Nekoksa, "Rapid Detection of Microbiologically Influenced Corrosion in Shipboard Equipment by On-Line Monitoring of Biofilm Formation," Corrosion '97, Paper 222, 1997.

G. J. Licina, G. Nekoksa, "Monitoring Biofilm Formation in a Brackish Water Cooled Power Plant Environment," Corrosion '97, Paper 528, 1997.

G. J. Licina, C. S. Carney, L. S. Dorfman, "Monitoring Biofilm Activity in Service Water Systems in Real Time," Tenth Annual EPRI Service Water Reliability Improvement Seminar, 1997.

October 13, 1999

D. A. Rosario, C. H. Wells, G. J. Licina, R. Viswanathan, "Stress Corrosion Cracking of Steam Turbine Rotors," EPRI, 1997.

G. J. Licina, M. S. Mazzola, "Pulsed Acoustics as an Innovative Alternative to Oxidizing Biocides for Biofouling Control," Eleventh EPRI Service Water Systems Reliability Improvement Seminar, 1998.

G. J. Licina, C. S. Carney, "Monitoring Biofilm Formation and Incipient MIC in Real Time," Corrosion '99, Paper 175, NACE, 1999.

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Before the Atomic Safety and Licensing Board

OFFICE OF THE SECRETARY
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In the Matter of)	
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CAROLINA POWER & LIGHT)	Docket No. 50-400-LA
COMPANY)	
(Shearon Harris Nuclear Power Plant))	ASLBP No. 99-762-02-LA

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Applicant's Third Supplemental Response to the Board of Commissioners of Orange County's First Set of Discovery Requests," dated October 13, 1999, was served on the persons listed below by U.S. mail, first class, postage prepaid, and by electronic mail transmission, this 13th day of October, 1999.

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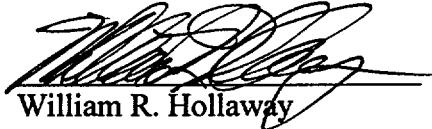
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