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Missouri Public
Service Commission

1 Kumar are asking for a Commission prudence review based on projected total costs
2 exceeding an earlier budget forecast.

3 Q. WHAT BASIS DO YOU HAVE FOR RESPONDING TO THIS ISSUE?

4 A. KCP&L asked Pegasus-Global to perform an independent and objective evaluation of the
5 effectiveness of KCP&L management regarding the Iatan Unit 1 project and the prudence
6 of the decisions made by the Project Leadership Team. In developing the study scope, the
7 following objectives were established:

- 8 • Assessment of the management processes used by KCP&L to plan, execute and
9 control functional activities.
- 10 • Identification of management strengths and positive actions which may have had
11 an impact on cost and/or schedule.
- 12 • Identification of any management shortcomings which may have had an impact
13 on cost and/or schedule.
- 14 • Determination of the effectiveness of overall Design, Procurement and
15 Construction Management practices and the extent to which these practices
16 avoided, mitigated or resulted in cost and/or schedule impacts.

17 I, Dr. Kris Nielsen, am the "sponsor" of the Pegasus-Global analysis. I directed and
18 actively participated in the evaluations and preparation of this testimony.

19 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
20 PROFESSIONAL EXPERIENCE.

21 A. I have earned a doctorate in Infrastructure Systems (Civil) Engineering from Kochi
22 University of Technology in Kochi, Japan in 2005, a Doctorate of Jurisprudence from
23 George Washington University Law School in Washington D.C. in 1970, and a Bachelor
24 of Mechanical Engineering degree from Princeton University in 1967. I have over 40

1 years of experience, including 27 as a management consultant in utility prudence and
2 management reviews, evaluations and audits. I have authored over 100 papers and
3 publications including the area of prudence and utility management. My power plant
4 experience includes nearly 90 power plants. I have testified 90 times of which over 40 of
5 those testimonies involved power plant projects.

6 I have performed extensive work on behalf of both public and private sector clients, on a
7 wide-range of complex, global engagements involving the construction, engineering, and
8 procurement of large projects with long-lead times. I have an extensive background in
9 engineering, construction and project management, including controls and scheduling. I
10 have also presented expert witness testimony in legal proceedings around the world
11 including numerous Commission dockets regarding the prudence of multiple power
12 plants. As a senior Pegasus-Global leader or member on risk management or strategic
13 consulting engagements, and I have undertaken and led performance and prudence audits,
14 evaluations and assessments of project-specific and corporate risk.

15 I have been involved with pre-design, engineering, procurement, construction, and
16 commissioning work for mega and large projects like the development of Iatan Unit 1,
17 which includes significant experience in bidding and bid solicitation for such projects,
18 procurement, constructability reviews, schedule resource loading and activity evaluation,
19 code and permitting processes, due diligence studies, overhead calculations, quality
20 assurance and control, startup and operations, commissioning, testing and maintenance. I
21 have worked on engineering and construction projects in over 60 countries.

22 I have performed prudence audits, management and performance audits, and technical
23 analyses and provided expert testimony before regulatory bodies, in court and in
24 arbitration hearings in the following areas:

- 25 • Utility Management Prudence
- 26 • Corporate/Utility Management

- 1 • Economics of the Construction and Utility Industries
- 2 • Project Controls
- 3 • Engineering/Procurement Management
- 4 • Project/Construction Management
- 5 • Nuclear/Fossil Licensing/QA/QC
- 6 • Cost Engineering/CPM Scheduling
- 7 • Construction Law/Disputes Analysis

8 My work experience and publications, including management and prudence audits is
9 described in my curriculum vita, which I have attached as Schedule KRN-1. My nuclear
10 power plant experience is attached as Schedule KRN-2. My non-nuclear power plant
11 experience is attached as Schedule KRN-3. My prior testimony is attached as Schedule
12 KRN-4.

13 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN ANY REGULATORY**
14 **PROCEEDINGS REGARDING UTILITY PRUDENCE PRIOR TO THIS KCP&L**
15 **CASE?**

16 **A.** Yes, I have testified on the following utility power projects for the party indicated:

- 17 • Vogtle Nuclear Power Plant, Units 3 &4, Georgia Public Service Commission, for
18 the Georgia Power Company
- 19 • Connecticut Yankee Nuclear Power Plant, Federal Energy Regulatory
20 Commission, for the Northeast Utilities Company

- 1 • South Texas Nuclear Plant, Public Utility Commission of Texas, for Central
2 Power & Light Company
- 3 • Trojan Nuclear Power Project, Oregon Public Utility Commission, for the
4 Portland General Electric Company
- 5 • Comanche Peak Nuclear Power Plant, Public Utility Commission of Texas, for
6 the staff of the Texas Public Utilities Commission
- 7 • Pilgrim Nuclear Power Plant, Massachusetts Department of Utilities, for the
8 Boston Edison Company
- 9 • Waterford 3 Nuclear Power Plant, City of New Orleans, for the staff of the City of
10 New Orleans City Council, the utility regulatory body within the corporate limits
11 of the City of New Orleans.
- 12 • Vogtle Nuclear Power Plant, Units 1 & 2, Georgia Public Utility Commission, for
13 the Georgia Power Company
- 14 • Perry Nuclear Power Plant, Public Utilities Commission of Ohio, for the staff of
15 the Public Utilities Commission of Ohio
- 16 • Perry Nuclear Power Plant, Pennsylvania Public Utility Commission, for the staff
17 of the Pennsylvania Public Utility Commission
- 18 • Scherer Fossil Power Plant, Georgia Public Utilities Commission, for the Georgia
19 Power Company
- 20 • Millstone Nuclear Power Plant, Unit 3, Connecticut Department of Public
21 Utilities Control, as the management prudence auditor for the Department of
22 Public Utility Control.

- 1 • Millstone Nuclear Power Plant, Unit 3, Vermont Public Service Board, for
2 Central Vermont Public Service Company
- 3 • Clinton Nuclear Power Station, Illinois Commerce Commission, for the staff of
4 the Illinois Commerce Commission
- 5 • Seabrook Nuclear Station Unit 2, Massachusetts Department of Utilities, for the
6 Massachusetts Attorney General
- 7 • Seabrook Nuclear Station Unit 1, New Hampshire Public Utilities Commission,
8 for the staff of the New Hampshire Public Utilities Commission
- 9 • Iatan Unit 1, Kansas Corporation Commission for Kansas City Power & Light
10 Company

11 **Q. HAVE YOU BEEN INVOLVED IN OTHER UTILITY POWER PROJECTS**
12 **THAT INVOLVED THE REVIEW OF PRUDENCE?**

13 **A.** Yes, with respect to power projects involving prudence investigations in which I have
14 either provided testimony in a forum other than regulatory hearings and/or the parties
15 involved entered into a settlement agreement, thus eliminating the need for a public
16 hearing include the following along with the respective client:

- 17 • 2003 Energy Black-Out in the Northeastern U.S. and Canada, U.S Federal District
18 Court, Ohio, for First Energy
- 19 • Indian Point Nuclear Power Plant, Unit 3, State Court, New York, for
20 Consolidated Edison
- 21 • Peach Bottom Atomic Generating Station, U.S Federal District Court, for Public
22 Service Electric & Gas

- 1 • Cooper Nuclear Station, State Court of Nebraska, for the Nebraska Public Power
2 District

- 3 • Millstone Nuclear Power Plant, Unit 3, American Arbitration Association, for
4 Northeast Utilities

- 5 • Salem Nuclear Power Plant, U.S. Federal District Court, Philadelphia, for the
6 Public Service Electric & Gas

- 7 • Diablo Canyon Nuclear Plant, Units 1 & 2, California Public Utilities
8 Commission, for the Attorney General of California

- 9 • Comanche Peak Nuclear Power Plant, U.S. Federal District Court, Texas, for
10 Texas Utilities

- 11 • Maine Yankee Nuclear Plant, for Stone & Webster regarding prudent
12 management of the decommissioning for utility report to the Maine Public
13 Utilities Commission

- 14 • Shoreham Nuclear Power Plant, U.S. Federal Court, New York, for the Counsel
15 for Suffolk County, the primary intervenor before the New York Public Service
16 Commission

- 17 • Wolf Creek Nuclear Power Plant, State Court, for Bechtel Corporation

- 18 • Calvert Cliffs Nuclear Plant, Maryland Public Service Commission, for Baltimore
19 Gas & Electric

- 20 • Turkey Point Nuclear Power Station, Unites 3 & 4, for Florida Power & Light

- 21 • Palo Verde Nuclear Power Plant, State Court, Arizona, for Combustion
22 Engineering, the Nuclear Steam Supply System vendor

- 1 • Palo Verde Nuclear Power Plant, State Court, Colorado, for Ernst & Young, the
2 Prudence Auditor for the Arizona Corporation Commission
- 3 • Pleasant Prairie Nuclear Generating Station Unit 2, U.S Federal District Court,
4 Wisconsin, General Contractor for the plant
- 5 • Reid Gardner Coal-Fired Generating Station, Unit 4, for the California
6 Department of Water Resources

7 **Q. WHO WERE THE OTHER PEGASUS-GLOBAL TEAM MEMBERS WHO**
8 **ASSISTED YOU IN YOUR REVIEW OF THE VANTAGE REPORT AND**
9 **EVALUATION OF PRUDENCE ON THE IATAN UNIT 1 PROJECT?**

10 **A.** Under my direction, the following Pegasus-Global principal consultants assisted me in
11 the prudence evaluation of the Iatan Unit 1:

- 12 • Dr. Patricia D. Galloway, Chief Executive Officer, Pegasus-Global
- 13 • John L. Owen, Specialist Consultant, Pegasus-Global
- 14 • Gerald W. Tucker, Specialist Consultant, Pegasus-Global

15 **Q. DR. NIELSEN, WILL YOU DESCRIBE THE GENERAL QUALIFICATIONS OF**
16 **THESE PRINCIPAL CONSULTANTS?**

17 **A.** Yes. In Schedule KRN-5 are the detailed resumes of Dr. Galloway, Mr. Owen and Mr.
18 Tucker. In a summary manner, however, the following information is provided regarding
19 their broad and applicable experience:

20 A. *Dr. Patricia D. Galloway* is a licensed professional engineer in fourteen U.S.
21 States (including Kansas), Canada and Australia, a certified project management
22 professional, and a certified forensic claims consultant. Dr. Galloway is known
23 for her experience and expertise in global engineering and construction. Her