

SRINIVASAN --

EXHIBIT 1

INDIVIDUAL EXPERIENCE RECORD

Dr. Ram Srinivasan
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EDUCATION: BE in Civil Engineering (with honors), University of Madras
MS in Civil Engineering, University of Illinois
MS in Business and Taxation, San Jose State University
Ph.D. in Civil Engineering, University of Illinois

**PROFESSIONAL
ACTIVITIES:** Member, American Society of Civil Engineers

**PROFESSIONAL
REGISTRATION:** Professional Engineer, Illinois and California
Structural Engineer, State of Illinois

**PUBLICATIONS
AND REPORTS:** Several technical papers in ASCE and other technical societies on various topics, including Piping Analysis, Seismic Soil-Structure Interaction, Post-Earthquake Analysis, Blast Analysis, Inelastic Seismic Analysis of Fossil Fuel Boiler Structure, Limit Design, Fatigue Strength of High Strength Steel, etc. (See attached List of Publications.)

EXPERIENCE SUMMARY:

Dr. Ram Srinivasan is presently the Manager of Design Engineering at BNFL Fuel Solutions. He has participated in and coordinated the design and analysis of dry cask spent fuel storage and transportation systems. The systems include the TranStor™ and VSC-24 designs. He has also contributed to the various sections of the safety analysis reports of the TranStor™ and VSC-24 systems.

Dr. Srinivasan has a Ph.D. in Civil Engineering from the University of Illinois, Urbana – Champaign, Illinois. He has over 25 years of experience in the design of nuclear power plants. For ten years he has been a consultant to the Electric Power Research Institute, Palo Alto, California. He has actively participated in the various phases of the Advanced Light Water Reactor (ALWR) Program. This experience includes the preparation of the Utility Requirements Document (Evolutionary and Passive Plants), Design Certification of the various vendor designs, and Conformance Assessment of the vendor designs to the utility requirements. He has also participated in the Life Cycle Cost Reduction Programs, including Operation and Maintenance Costs.

Dr. Srinivasan has extensive experience in engineering and project management of power plant structures and components. He held positions as Head of Structural Engineering Specialist Section at Sargent and Lundy, Chicago (1972 – 1980); Project Manager of several piping projects at Quadrex Corporation, Campbell, CA (1980-1982); and Senior Consultant at S. Levy Inc. (1984-1994). Experience includes structural and engineering mechanics, structural dynamics including seismic analysis and design, piping and pipe supports, and application of ASME, ACI, ASCE, ANSI Codes and Standards.

Provided technical training and project management for a number of utility and industry clients. Assisted utilities in several costs saving projects: eliminating unnecessary requirements from procurement specifications, efficient design of small bore piping, snubber reduction programs, etc.

SPECIFIC PROJECTS

Dry Cask Storage and Transportation Casks Participated in and coordinated the design and analysis of dry cask spent fuel storage and transportation systems. The systems include the TranStor™ and VSC-24 designs. The design includes the consideration of pressure, thermal, handling and external loads (tornado, earthquake, flood, etc.). He has also contributed to the various sections of the safety analysis reports of the TranStor™ and VSC-24 systems.

EPRI Advanced Light Water Reactor Program. Key participant in the development of Utility Requirements Document (URD) and assessment of vendor designs (ABWR, SBWR, and AP600) for conformance to the URD.

Third Party Review of the Commanche Peak Steam Electric Station. As a Group Leader of the Civil/Structural discipline, reviewed the design of the various structures, seismic analysis, component (equipment, cable tray, conduit, etc.) supports. Also reviewed the structural design interfaces between the NSSS Vendor and Architect Engineer.

Pipe Support Reduction Program. Reviewed existing design of Small Bore Piping based on Architect Engineer Simplified Dynamic Analysis (SDA). Analyzed sample lines using the computer code NUPIPE and identified removal of those supports not required. Summarized conservatisms and limitations of the SDA.

Review of ASME Class 1 Piping Stress Reports. Prepared detailed checklists based on ASME Code requirements (NA-3300) for Owner Review of Stress Reports. Reviewed all ASME Class 1 Piping Stress Reports using the checklists.

Independent Review of Mark 1 Containment Study: Reviewed Plant Unique Assessment Report (PUAR) for the Duane Arnold Energy Center. The review included comparison of the NRC requirements against utility commitments. The reports were then reviewed in light of the NRC requirements and the utility commitments.

Review of Seismic Qualification of Mechanical Equipment. Performed an independent review of seismic requalification of mechanical equipment (ECCS pumps, fuel racks, etc.).

Technical Training. Established and presented training courses to utility engineering staff. Several courses were presented to different utilities. The source material included (1) Introduction to the ASME Code; (2) Piping Design and Analysis; (3) Pressure Vessel and Component Design.

Litigation Record Review. Reviewed the litigation records for Houston Lighting and Power Company for identification of any deficiencies in the design and construction of the South Texas Plants.

In-depth technical Review of Piping Stress Analysis and Support Design performed by Brown & Root in connection with litigation of the South Texas Project (client: Houston Light and Power).

Technical assistance to Commonwealth Edison Co. on their Snubber Reduction Programs for LaSalle County Stations (BWR) and Byron Stations (PWR).

PUBLICATIONS

1. "On-Site Staffing Requirements for a Simplified Boiling Water Reactor (SBWR)," presented at the ICONE-4 Conference in New Orleans, Louisiana, March 1996.

2. "A Snubber Reduction Pilot Program," presented at the ASME Pressure Vessel and Piping Conference, Chicago, June 1986.
3. "Economic Application of Computer Analysis to Small Bore Piping Design." Presented at ASME Pressure Vessel and Piping Conference, Portland, Oregon, June 1983.
4. "Application of Frequency Response Method in Post-Earthquake Analysis." Presented at Sixth SMiRT Conference, Paris, August 1981.
5. "Blast Effects on Safety-related Structures." Presented at Second ASCE Specialty Conference on Structural Design of Nuclear Plant Facilities, New Orleans, Louisiana, December 1975.
6. "Response of Suspended Boilers to Earthquake Motions." Presented at ASCE, Power Division, Specialty Conference on Electric Power and the Civil Engineer, Boulder, Colorado, August 1974.
7. "Three-Dimensional Soil-Structure Seismic Analysis Using Finite Elements." Presented at ASCE Conference on Structural Design of Nuclear Plant Facilities, Chicago, December 1973.
8. "Inelastic Response of Steel Frames to Simulated Earthquake Motions." Ph.D. Doctoral Dissertation, Department of Civil Engineering, University of Illinois, Urbana, May 1972.
9. "Fatigue Strength of Bolted High Strength Structural Steel." *Journal of the Structural Division*, Proceedings of ASCE, March 1971.