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Title: Senior Civil/Structural Consultant Engineer

Professional Experience: Over 30 years

EDUCATION/TRAINING:

- University of Illinois at Chicago Circle, Bachelor of Science in Structural and Materials Engineering, 1980
- Completed various continuing education programs, management trainings and finished all the Nuclear Power Plant's Systems' training and exams.
- Qualified Seismic Qualification Utility Group (SQUG) member
- 50.59 screener and evaluator

EXPERIENCE SUMMARY:

(Please visit www.poustinchian.com for some examples of the latest projects)

A technical Senior Structural/Civil Consultant Engineer with over 30 years experience in engineering design, coordination and management for various projects related to nuclear power-generation facilities. Background and experience include the following;

- Replacements and riggings of nuclear power plants' major components, such as Steam Generators, Reactor Heads, Feed Water Heaters, Tube Bundles, Pumps, and other major components
- Nuclear power plant's security upgrades
- Steel structures, steel platforms and related welded and bolted connections
- Reinforced concrete walls, slabs, foundations, block walls and other various reinforced concrete structures
- Experience with finite element programs such as STAAD Pro, STRUDL and ALGOR
- Experience with other professional programs such as SolidWorks 3D modeling, Alibre Design, MathCAD, BasePlate, PIPSEIS, SEISHANG, Microsoft Office, Adobe Flash, Adobe Dreamweaver, Adobe Acrobat Professional and Adobe 3D
- Familiar with ESA PrimaWin (3D FEA Program developed by Scia Software and used by Mammoet to analyze large rigging structures), ANSYS, AutoCad and Bentley Micro Station
- Very familiar with various engineering books, codes, standards, specifications and procedures such as AISC, ACI, FSARs, ASTM, ASME, ANSI, AWS, UBC and Nuclear Plants' Specifications and Procedures
- Seismic Qualification Utility Group (SQUG) training and experience
- Mechanical and electrical components seismic qualifications
- Preparation and reviews of Engineering Change (EC), Design Change Packages (DCPs) and other engineering documents for nuclear power plants
- Experience with construction cost analysis, bids, proposals and contract management
- 50.59 screener and evaluator

PROFESSIONAL EXPERIENCE:

IEPSON Consulting Enterprises, Incorporation, (3/2009 to Present)

Progress Energy, (03/2011 to Present)

Due to postponing the Steam Generator Replacement Outage at Waterford 3, got a new assignment at Crystal River Nuclear Power Plant in Florida and started to work for Progress Energy. The responsibilities at Crystal River involve security upgrades which consist of supporting the Central Alarm Station 2 (CAS2) construction and installations of the Intrusion Detection Systems (IDS).

The differences between the actual field conditions and the design documentations require many changes to be made to the design documentations in order to proceed with construction activities. Timely advance approvals and solutions need to be provided for new design changes and they need to be practical, economical and as simple as possible to enhance the schedules. At the meantime, maintaining the structural integrity of the structures is a high priority and it would not be compromised.

Due to some complex design changes, the computer programs are used extensively to design the new required modifications. The modified structures are modeled in SolidWorks and the 3D model is imported to ALGOR FEA program and analyzed for structural integrity. The required drawings are generated automatically by utilizing SolidWorks drawing features. Due to familiarity with the new technology and having extensive experience with the computer programs, the qualification process and all the new documentations are completed in a matter of days instead of weeks. The resulting new high quality documentations are by far exceeding the client's expectations.

When proposals for bids are provided to outside vendors to fabricate the modified structures, the vendors are provided with the best computer generated 3D drawings which show all the details. An interactive 3D model of the modified structure is also provided to them in a PDF file format. They could open the interactive 3D file with a PDF reader program and play with the 3D model to see all the details and all the connections from different views. They could rotate the 3D model for close inspection, zoom in and out, make the parts transparent or hide any part to reveal the hidden parts and make section cuts to see everything they need to see. The positive response from the vendors has been very encouraging and the bids are coming in much lower than expected because the uncertainties are eliminated and the vendors have a very clear view of what is expected from them.

Entergy Operations Incorporations (EOI), (3/2009 to 3/2011)

Started working for Entergy Operations Incorporations (EOI) and got assigned to Waterford 3 Nuclear Power Plant located in Louisiana. Worked on emergent engineering related activities for RF17. Completed engineering assignments for Old Steam Generator's Storage Facility (OSGSF) project. The assignments were related to reviewing engineering design documentations, vendor's technical documentations and various geotechnical test reports. Performed construction supervision, resolved construction problems and provided technical solutions to accommodate construction activities.

Other responsibilities were related to Temporary Assembly building (TAB). As a lead Civil engineer, reviewed vendor's design and qualifying documentations and supervised the construction activities.

Other tasks included reviewing the qualifying design calculations and drawings prepared by Mammoet and Steam Generating Team (SGT) for all the rigging structures related to the replacement outage. Supported the Waterford's N-1 outage activities and prepared documentations for emergent Engineering Changes (EC).

System One Services, (10/2007 to 3/2009)

Moved to California with SGT group and started working at Diablo Canyon Nuclear Power Plant. As a team member for Steam Generator Replacement Project, modified plant's Fuel Handling Building to remove interference problems on existing building structures. Designed and qualified new seismic cranes which were fabricated, installed and operated inside the Reactor Building during normal plant's operation (Mode 1). Worked on several rigging plans and supported the rigging activities for unit 2's Steam Generator Replacement Project. Reviewed Design Change Packages (DCPs) and provided design modifications as needed. Completed the 50.59 screening exam and became a qualified 50.59 screener. Reviewed engineering documentations to assure they were in compliance with 50.59 requirements.

Stayed at Diablo Canyon Nuclear Power Plant for Steam Generator Replacement Project for unit 1 and continued the same tasks and responsibilities.

Hudson Global Resources, (3/2006 to 10/2007)

Got assigned to AREVA and started working at AREVA's Charlotte's office for SGT group. Became a Diablo Canyon team member and worked on engineering documentations for Old Steam Generator's Storage Facility (OSGSF).

As a consultant engineer for St Lucie's Unit 2 Steam Generator and Reactor Head replacement project, the responsibilities included reviewing Mammoet's rigging documentations, this included rigging drawings and qualifying calculations. Discovered numerous substantial mistakes in subcontractor's design and engineering documentations and provided the proper solutions for correcting the errors. Coordinated rigging activities and worked with Mammoet to resolve interference issues and rigging problems.

Reviewed design documentations for several new seismic storage racks inside Reactor Building. The new permanent racks inside Containment Building had to meet code and seismic requirements for normal operations.

Hudson Global Resources, (6/2005 to 1/2006)

Got assigned to Steam Generator Team (SGT) and stayed at Arkansas Nuclear One (ANO) to work on Steam Generators and Reactor Head replacement project. As a lead rigging engineer, completed the full training program for rigging and handling and became the Person In Charge (PIC). Reviewed and resolved construction problems related to concrete foundations for Outside Lift System (OLS) and Hatch Transfer System (HTS). Completed the design for Chipping Platform by using STAAD Pro program and resolved the construction interferences and provided timely solutions as needed. Reviewed the analysis for Reactor Cavity Deck Platform and provided solutions for the discovered constructability problems to accommodate construction. Reviewed the lift plans for Engineering Lifts and Non-Standard Lifts and approved and signed the required forms for such lifts. Provided supervision and oversight for all the major rigging activities.

IEPSON Consulting Enterprises, Incorporation, (1/2004 to 6/2005)

10/2004 to 6/2005: Performed duties as a consultant Engineer at Arkansas Nuclear One (ANO) and worked on Feed Water Heaters' replacement project. Prepared design calculations for the existing steel and concrete structures. Evaluated the existing structures for increased loading due to rigging activities and sliding loads. Completed the civil related documentations and prepared the civil installation packages for the required modifications.

1/2004 to 10/2004: Worked on Security Upgrade and reviewed safeguard design documentations prepared by outside vendors. Prepared civil design calculations and completed Engineering Report

(ER) packages for various civil projects. Resolved civil related issues and provided required construction modifications to accommodate installations, budgets and schedules.

Adecco Technical, (6/2003 to 12/2003)

As a consultant contractor was assigned to Entergy Operations Incorporations and worked at Arkansas Nuclear One (ANO). Completed several modification projects and provided the required documentations for such projects. Became a member of Alloy 600 team and worked on problems related to Alloy 600. Proposed repair methods for Reactor Head nozzles to take care of Alloy 600 deficiencies.

Self Employed and working part time, (1/2000 to 2003)

Worked on few projects for different clients and provided engineering drawings, construction instructions and qualifying documentations.

- **Client: American Rock Climbing Company** - Completed structural design analysis and qualification for portable climbing walls' structures. The qualifications incorporated different code and safety requirements. Provided fabrication and engineering drawings for fabrications and construction. Supervised fabrication and construction activities and provided input and guidance to facilitate budgets and productivity.
- **Client: Quest Air Soaring Center** - Provided fabrication, engineering drawings, qualifying documents and construction supervision for a hangar at Groveland's Airport in Florida. The local code requirements and different environmental conditions had to be incorporated in design documentations. The new structure was designed and constructed to meet all the required requirements.

Entergy Operations, Incorporations (EOI) (Arkansas Nuclear One, 8/90 – 1/2000)

As a Senior Structural/Civil Engineer, responsibilities included consolidating and updating the seismic design documentations and performing reviews for engineering documentations transmitted by outside consulting firms. Designed new structures or modified existing structures and provided engineering documentations for engineering activities. As a qualified Seismic Qualification Utility Group (SQUG) member, prepared and reviewed various Safety Evaluation Screens for different plant's systems and components. Prepared Design Change Packages (DCPs) for different projects. As a Contract Manager, responsibilities included preparation of proposals for bids and performing assessment of different contractors and evaluating the bids. Coordinated and managed contracts' scope, schedules, budgets and deliverables from start to finish.

Sargent & Lundy Engineers, Chicago, Illinois (1980 to 1990)

As a consultant engineer and field liaison engineer traveled and worked on different projects at various Nuclear Power Plants under construction around Illinois. Some of the projects are as following;

- **Braidwood Nuclear Power Plant**, Braidwood, Illinois (Client: Commonwealth Edison Company): Coordinated and trained new engineers to analysis different structures for structural integrity by utilizing different computer programs. As a resident liaison engineer, responsibilities included construction coordination with different contractors. Designed new and modified existing structures to accommodate field conditions and provided advance approvals for required modifications to expedite schedules and productivity. As a team member for "Braidwood Construction Assessment Program", participated in construction planning and coordinating various projects.

- **Enrico Fermi Nuclear Power Plant**, Monroe, Michigan (Client: Detroit Edison Company): Responsibilities included analysis and design of Containment internal framing structure. Analyzed and designed blast-resistant structural steel and reinforced concrete structures. As a resident liaison engineer, reviewed construction drawings and provided solutions for the discovered problems.
- **Clinton Nuclear Power Plant**, Clinton, Illinois (Client: Illinois Power Company): Responsibilities included designing mechanical component supports and equipment foundations by utilizing various finite element programs. As a liaison engineer, responsible for processing and providing solutions for Field Change Requests, Engineering Change Notices and Non-Conformance Reports.

Special Skills:

A very technical Civil/Structural engineer with over 30 years of technical and practical experience in nuclear industry. Always looking forward to challenging tasks and focused on producing quality work efficiently and accurately. A team player and ready to help and assist others who are in need of help. Broke the World's Hang Gliding Distance Record in 2001 when flew for 10 continuous hours on one flight and landed 369 miles away from the start. Because, if you have a goal and believe in yourself, with determination, you can reach your dreams and achieve your goals.

References:

References and contacts can be provided if requested.