

# **Magnus Engineering Services, Inc.**

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## **Brief Resume of Pankajkumar Shah (PK)**

PK Shah started Magnus Engineering Services, Inc. in 1995.

### **EDUCATION**

BS (India), MS (Tulane Uni.), MS Electrical (Uni. of Tenn.), MBA (Uni. of Tenn.)  
P.E., Professional Engineer License in Massachusetts

### **PROFESSIONAL AFFILIATION**

Member of the ASME Section III Nuclear Power Plant Components Code Committees

- (i) Working Group on Vessels (SG-D) (SC III)
- (ii) Working on Section III Design Methodology

### **SUMMARY**

- Over 35 years of experience in the nuclear power industry, including the nuclear vessel shop floor experience in the design, materials, welding, fabrication, and detailed analyses of PWR and BWR reactor vessels, internals, PWR steam generators, pressurizers, heat exchangers, ASME vessels and tanks, and piping.
- Extensive experience in ASME Section III – Divisions 1 and 5, Section VIII Div. 1 and Div. 2, Section XI, FEA based structural, thermal, seismic, and fatigue analyses of vessels.
- Has assisted international clients in the design of the Small Modular Reactors.
- Has worked at the PWR and BWR plant sites and has prepared plant modification packages.
- Has performed and managed most all types of analyses necessary in the nuclear industry.
- Familiarity with NRC 0800 SRP Plan, 10CFR50, Applicable NRC Reg. Guides, NUREGS, and EPRI documents
- Participated in the design of Elevated Temperature Nuclear Components (DOE-MHTGR)
- Experienced in flaw evaluation per ASME Section XI Fracture Mechanics
- NRC 10CFR50 PT Curves and Pressurized Thermal Shock (PTS) Analysis
- Detailed Seismic Analysis of Systems and Components using FEA codes
- Design documents review for Power Up-rate and TLAA Analyses for License Renewals
- Detail design of heat exchangers based on TEMA and HEI standards
- Flow Induced vibration analysis of heat exchangers based on Industry Standards

As a contract consulting engineer, upon winning the confidence of his clients, he and his employees have served his clients for long term assignments. His clients have been Entergy, AREVA, GE, Millstone Units, American Ship Building (ABS), Westinghouse, NuScale Power, Curtiss-Wright, and LPI.

His broad background in ASME Codes, materials and fabrication of nuclear vessels, ASTM Standards, NRC 10CFR50 and associated NRC Reg. Guides, NUREGS, EPRI and NEI reports, along with strong structural analytical skills using ANSYS has been valuable to all his clients which are leading nuclear utilities and engineering firms serving nuclear industries.

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