

Dr. Dipak K. Chandiramani

Independent Consultant

Career summary

Served as Junior/Senior Engineer in the Offshore R&D Department, Mazagon Dock Ltd., India from December 1980 to June 1985

Lloyds Register Asia from July, 1985 to January 2015.

Current Activities

Reviewing FEA of ASME Section VIII Div. 2 pressure vessels

Certifying User's Design Specifications of ASME Section VIII Div. 2 pressure vessels

Reviewing NDE procedures and monitoring NDE as ASNT NDT Level III in RT, UT, PT and MT

ASME Authorized Trainer for ASME Section VIII Division 1, Section VIII Division 2 and Section V

Past Activities:

Monitored shop and site pressure vessel construction and assembly for quality and Code compliance at HURL Gorakhpur, HURL Barauni and HURL Sindri.

Monitored shop fabrication of Bimetallic Urea Stripper for HURL Barauni and Sindri at Villa & Bonaldi, Italy and various vessels at ISGEC Dahej, during 2019 and part of 2020.

Participated in conducting workshop at Technip Delhi for Talcher Fertilizer Ltd. in February, 2021

Qualifications

Academic

- Ph.D. in Mechanical Engineering (Underwater Welding), IIT Kharagpur, 1980
 - Master of Technology in Mechanical Engineering (Production Science and Technology), 1st Class, IIT Kharagpur, 1976.
 - Bachelor of Technology (Hons.) in Mechanical Engg. 1st Class, IIT Kharagpur 1974.
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Professional

- Life Member, Indian Institute of Welding
 - Life Member of the American Welding Society
 - Member of the American Society for Nondestructive Testing
 - Member of The Institution of Engineers (India)
 - Chartered Engineer (India)
 - Member of The American Society of Mechanical Engineers
 - Member of the American Society for Metals
 - Member of ASME Section XII Subgroup Design and Materials (SGDM)
 - Member of ASME Section VIII Subgroup Design
 - Contributing Member of ASME Section IX Subgroup Welding Qualifications
 - International Professional Engineer, Institution of Engineers (India)
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- **Chairman of the International Working Group (India) of ASME Section VIII**

Professional experience (Lloyd's Register)

2013 – Jan 2015	Lloyd's Register Asia
	Senior Principal Specialist
	Resolving technical issues related to Design Appraisal
	Conducting Technical Training for Clients to ASME Section I, Section VIII Div. 1, Section VIII Div. 2
	Raising technical queries with ASME and obtaining interpretations and Code Revisions for better understanding of Code rules
2008 – 2013	LR Insurance Inc.
	Technical Manager
	Resolving technical issues
	Conducting Technical Training for Clients to ASME Section I, Section VIII Div. 1, Section VIII Div. 2
	Raising technical queries with ASME and obtaining interpretations and Code Revisions for better understanding of Code rules
	Maintaining technical competence of LR Insurance Inc. Authorised Inspectors and arranging relevant training programs. Resolving Code related issues.
2007 – 2008	LR Insurance Inc.
	Deputy Technical Manager
	Resolving Code issues in Asia Region
2005 – 2007	Mumbai Plan Appraisal
	Principal Surveyor
	Managing Plan Appraisal activities in Mumbai
2001 – 2005	Mumbai Plan Appraisal
	Senior Surveyor in Charge
	Appraisal of drawings of Boilers and Pressure Vessels to ASME Section I, Section VIII Div. 1, Section VIII Div. 2, European Pressure Vessel Codes.
	Apart from Plan Appraisal work, I was appointed NDE Level – III for Lloyd's Register Asia and carried out training of Surveyors to NDE Level – II competency in the NDE methods RT, UT, PT and MT.
1997 – 2001	Mumbai Plan Appraisal

	Senior Surveyor in Charge, Surat Office
	Involved in inspection of pressure equipment to ASME Section VIII Div. 1, Section VIII Div. 2 and Section I. Vessels include Urea stripper, Ammonia Converter, EO Reactor, etc.
1989 – 1997	Mumbai Plan Appraisal
	Involved in appraisal of drawings to ASME Section I, IV, VIII Div. 1, VIII Div. 2, TEMA, AD-MERKBLATTER, PD5500, API, Australian Standards and IS codes. Shop and field inspection as Authorised Inspector of ASME code symbol stamped boilers and pressure vessels to ASME Sec. I, Sec. IV, Sec. VIII Div. 1 and Sec. VIII Div. 2
1985 – 1989	LR Mumbai
	Field Surveyor
	Temporary assignments at GSFC Sikka for inspection of Ammonia Storage Tanks and associated pipelines, GSFC Vadodara for inspection of Harp Assemblies for Ammonia Condensers.

PROFESSIONAL EXPERIENCE (Prior to joining Lloyd's Register)

1980 – 1985	Mazagon Dock Ltd., Mumbai, India
	Senior Engineer, Offshore R&D. Responsible for development of welding procedures for offshore fixed platforms, jack-up drilling rigs, single point mooring systems, offshore pipelines, offshore platform piping and submarines. Involved in resolving problems related to cracking in submarine steels and weld distortion in ship structures.

Training

- Pipe Stress Analysis (2005)
- Finite Element Analysis (2006/2008)
- ASME Course on Section VIII Div. 2: 2007 (2008)
- Ultrasonic Time of Flight Diffraction (2009)
- Phased Array Ultrasonic Testing (2010)
- Fracture Mechanics (2012)

ASME Training course on

- ASME Boiler and Pressure Vessel Code Section III Division 1 (2007)
- Design Examples in Stress Categories and Tube – to – Tubesheet Junctions (2010)

- New Technology in Design at Elevated Temperatures and Design Comparisons of ASME Section VIII Divisions 1 and 2 (2010)
- Part A: Compressive Stress in the Creep Range, VIII-1, Part B: Ellipsoidal and Torispherical heads in the VIII-1 and VIII-2 Codes (2010)
- Fatigue Methods in Part 5 of Section VIII Division 2 (2012)
- Overview of Welding Applications and Processes for Power Plant Piping and Pressure Vessels (2014)
- Application of API 579-1/ASME FFS-1 and BS 7910 Fitness-for-Service Procedures

SELF STUDY

- Elementary Engineering Fracture Mechanics by David Broek
- Fracture Mechanics – Fundamentals and Applications by T.L. Anderson
- API 579-1/ASME FFS-1 – 2007

Publications

- Quality Assurance – A State of Mind: Presented at the Indian Institute of Welding National Welding Meet Bhubaneswar September 2023.
- A Treatise on Weld Evaluation: PVP2018-84109 Presented at the ASME Pressure Vessels and Piping Conference, Prague, Czech Republic, July 2018.
- A Comparative Study of Eccentrically and Concentrically Pierced Flat Unstayed Heads: PVP2017-65521 Presented at the ASME Pressure Vessels and Piping Conference, Hawaii, USA, July 2017
- Design of Threaded Closures for High Pressure Screw Plug Heat Exchangers Designed to ASME Section VIII Div. 2: PVP2017-65458 Presented at the ASME Pressure Vessels and Piping Conference, Hawaii, USA, July 2017
- A Study of Stresses in Cylindrical Shells Having Tapped Holes Parallel to the Axis of the Cylinder: Presented at the ASME Pressure Vessels and Piping Conference, Vancouver, BC, Canada, July 2016
- An Improved Design of Threaded Closures for Screw Plug (Breech Lock) Heat Exchangers: Presented at the ASME Pressure Vessels and Piping Conference, Vancouver, BC, Canada, July 2016
- A Effect Of Nozzle Dimensions On The Stresses In Compensated Openings In Cylindrical Shells: Presented at the ASME Pressure Vessels and Piping Conference, Boston, July 2015
- Assessment of Weep Holes in Cylindrical Shell based on Elastic-Plastic Stress Analysis Method: Presented at the ASME Pressure Vessels and Piping Conference, Anaheim, July 2014
- Large openings in Cylindrical Pressure Vessels – An Assessment based on Absolute Size: Presented at the ASME Pressure Vessels and Piping Conference, Anaheim, July 2014
- Stresses in Nozzle-Shell Junctions due to External Loads – A Comparative Study: Presented at the ASME Pressure Vessels and Piping Conference, Paris, July 2013.

- Weld Quality in Steel Fabrication: Presented at the 62nd Annual Assembly of the International Institute of Welding held at Singapore, July 2009.
- Quality Assurance in Pressure Vessel Construction: Presented at the Materials Technology Institute's SinoTAC Meeting, Shanghai, September, 2008
- Hydrogen Reduced in Wet Underwater Welds: Welding Journal (USA), March, 1994
- Quality Assurance in the Manufacture of Harp Assemblies for Ammonia Condensers: Presented at the National Welding Seminar, India, 1990
- Welding Quality: Presented at the Annual Welding Seminar, IIW Mumbai Branch, February, 1989
- Some Aspects of Bead Deposition during Underwater Gas Shielded Metal Arc Welding: Welding Journal (USA), May, 1982.
- Underwater Repair and Inspection Techniques: Presented at the Oil and Natural Gas Commission's seminar on Metallurgy in Offshore Technology, Mumbai, 1982.
- Underwater Welding – Scope of Development in mid '80s: Presented at the workshop on Shipbuilding and Underwater Welding, BHEL, Tiruchirappalli, India, 1981.
- Hydrogen Pickup during Underwater Welding: Presented at the National Welding Seminar, Mumbai, India, 1981.
- Temperature Distribution and Cooling Rate during Underwater Welding: Presented at the National Welding Seminar, Madras, India in 1980
- Underwater Welding Research in India: Presented at the National Welding Seminar, Bangalore, India in 1979
- Underwater CO₂/MIG welding: Presented at the Afro-Asian Conference on Welding, New Delhi, India in 1978

Personal information

Date of birth	30 th January, 1953
Nationality	Indian
Passport number	Z4231340
No. years employed at Lloyd's Register	30
No. years' experience in industry	42
Languages	English, Hindi, Bengali, Sindhi
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(DIPAK CHANDIRAMANI)

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