



Ahmad Taufik, M.Eng., Ph.D., CMRP.
Asset Integrity & Reliability Specialist

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I. Present Occupation & Background

1. **Asset Integrity & Reliability Specialist, at PT. Fortasindo (Since 2022).**
2. Last Education Background Ph.D., (Metallurgy & Materials Engineering – **Georgia Tech, Atlanta, USA 1996**)
3. Lecturer at Graduate Study Program (S2), Metallurgical Engineering and Ocean Engineering Department, ITB Bandung, since 1997 and Visiting Lecturer in Mechanical Engineering, ITENAS, Bandung, since 2005.
4. Risk and Integrity Consultant for PT. Surveyor Indonesia Jakarta (2019 – 2022).

II. Interest and Expertise

1. Risk Based Inspection (RBI) and Assessment Pressurized System ; Pipeline, Piping, Pressure Vessels (API 580 / API 581, DNV-RP- G101).
2. Pipeline Integrity Management System (PIMS) – API 1160, ASME B31.8S.
3. Fitness for Services Assessment (ASME B31.G, R Strength, API 579/ASME- FFS1).
4. Damage Mechanism / Root Cause / Failure Analysis (API 571).
5. Fire and Explosion Analysis (Chemical Process Safety).
6. Remaining Life Assessment (API 510, API 570).
7. Engineering Critical Assessment (API 1104, API 579/ASME FFS-1, BS 7910).
8. Reliability Engineering (ISO 14224, OREDA 2016, RCM3-Aladon)
9. Author, *Guideline for Pipeline Engineering Critical Assessment – A Practical Approach to Methodology and Application*, 1st Edition, A Textbook, ITB Press (2022).
10. Failure Mode and Effect Critical Analysis (FMECA) / Reliability Centered Maintenance (RCM).

III. Professional Experiences in Companies and Institutions

1. Integrity Specialist for Asset Integrity Management Project, Mubadala Petroleum (Pearl Oil) responsible for Mechanical and Pressurize System (Pressure Vessels and Piping). Performing RBI and FFS assessment, inspection, maintenance and repair analysis, and failure analysis. PT. Velosi (2014 – 2017).
2. Integrity Specialist for Asset Integrity Management Project, PHE-ONWJ (formerly BP West Java) responsible for Subsea Pipeline (perform RBI and defect assessment, inspection, maintenance and repair analysis, leak detection and failure analysis). PT. Velosi (2008 – 2011).
3. Moderator for Reliability Group Discussion in MIGAS Online Indonesia, Indonesian Community for Oil and Gas (KMI) since March 2003.
4. Oil and Gas Operation Manger, PT. Lloyd's Register Indonesia, Jakarta (June 2006 – August 2007).

5. Inland Steel Company, East Chicago, Indiana, USA. Fatigue & Fracture Test (1994 – 1995).
6. McGill University, Montreal, Canada and Georgia Tech, Atlanta, USA (1993), Failure Analysis and Fractures Laboratories (1989 – 1990).

IV. Involvement in Various Industrial Projects / Assignments

1. ECA & FMEA Study of Flare Gas Recovery Facility, JOB Pertamina – Medco E&P Tomori (2023)
2. Conducted Gap Analysis for AIMS Development and Implementation, PT. Badak, NLG, Bontang East Kalimantan, PT Fortasindo (June – July 2023).
3. Gas Export Pipeline ICDA and ECDA and Inspection Plan, ENI Muara Bakau, BV, East Kalimantan (March 2023 – May 2023)
4. RCM Project Development – JOB Pertamina – Medco E&P Tomori (Nov 2022 – Feb 2023).
5. Subsea Pipeline Integrity Assessment (ICDA and ECDA), PT PHE-ONWJ (Nov 2022 – March 2023)
6. Corrosion Analysis for 24" Export Gas P/L Project, ENI Muara Bakau BV, East Kalimantan, (Des 2022 – Feb 2023)
7. Subsea Export Pipeline Risk Based Inspection, ENI Muara Bakau, BV, East Kalimantan (Oct 2022 – Des 2022).
8. Developing Pipeline Risk & Integrity Management, PT.TGI (July – December 2022).
9. RAM Analysis, Gas Compressor Station, PT TGI (July 2022 – March 2023).
10. Risk Assessment of Offshore Gas Pipeline related to Anchor Drop, Anchor Drag and Vessel Sinking, PT MEI – PT. JSP (August – December 2021).
11. RBI Procedure Development, ARAMCO Saudi Arabia – Luberef – PT Winestra (2020).
12. Update Pipeline Risk Assessment Methodology – Pipeline Distribution, PGN – SENA (2019).
13. Update Pipeline Risk Assessment Methodology - Pipeline Transmission, PGN-SENA (2019)
14. Reliability Analysis (RAM, RCM and FMECA) for Gas Turbines in PHE-WMO, with PT. Velosi (2018)
15. FMECA Analysis of Subsea Valves, Mubadala Petroleum, Ruby Offshore Platform, East Kalimantan (2018)
16. ECA on Premature Failure of Gas Pipeline, a Consultative Discussion, Block A Gas Development Facility, MEDCO, E&P (2018).
17. RBI Assessment for Pressure Safety Devices and Related Protected Equipment, BP Tangguh (October - November 2016).
18. Material Selection for Casing Geothermal Well, Pertamina Geothermal Energy, LAPI-ITB (April 2016).
19. FMECA Study on Flexible Pipeline and SBM, PHE-WMO, PT Velosi Indonesia (2016 – 2017)
20. FFS Level 2 and Level 3 Assessment (API 569) for Bulged Pressure Vessels, TUV – ADCO (2015)
21. FMECA Analysis for ORF and Metering System, PT. PGN – PT AT Solusi (2015).
22. Develop PIMS Database and Risk Software with IT Team for PGN SBU – TSJ, with PT. PGASol and PT. AT Solusi (2008 – 2010).
23. PIMS Database Development for CNOOC, Jakarta, with PT. BIRU (2009 – 2010)
24. Develop PIMS Database and Risk Software with IT Team for Pertamina EP with PT. AT Solusi (2012 - 2013)
25. CUI and Integrity Assessment Steam Piping, Pertamina UP IV Refinery Cilacap, PT. BKI Semarang 2013 – 2014.
26. In Field Joint Integrity Assessment using Fracture Mechanics (ECA) on Gas Transmission Pipeline subject to Geohazard Risk, PT AT Solusi - PGN SBU SSWJ (2013) – Phase I & II.

27. Steam Pipeline Hydraulic Analysis (Pressure Drop, Flowrate and Leak Analysis), PT. LAPI – ITB, PT. Pertamina Geothermal Energy, Kamojang, (2012 – 2013).
28. Pipeline Risk & Integrity Specialist, 28" OD Gas Transmission Onshore and Offshore Pipelines, PT. Transportasi Gas Indonesia (PT. TGI), Jakarta, June – December 2011.
29. Pipeline Risk & Reliability Specialist, Point A – Point B, Gas and Condensate Pipeline Risk Assessment and Engineering Feasibility Study, Aceh, MEDCO E & P (October 2010 – March 2011).
30. Pipeline Risk Specialist Suban 12"OD Condensate Pipeline Business Risk Assessment, Jambi, ConocoPhillips, (June – October 2010).
31. Project Leader, Pipeline Integrity Management System Software Development. CNOOC – PT. BIRU , Jakarta (August 2009 – February 2010).
32. Pipeline Integrity Specialist, Mechanical Impact Analysis on Gas Pipeline, Pertamina Gas, July 2009.
33. RBI Assessment for Storage Tanks, Chevron Pacific Indonesia, Dumai, Pekanbaru – ABS Consulting, Riau (2010)
34. As a Senior Pipeline Risk Consultant, in PT. PGN, Tbk, Head Quarter, Engineering Department, Jakarta Developing a Risk Based Decision Making for Project Investment (August – December 2008).
35. As a Pipeline Risk and Integrity Specialist, Offshore Pipeline FEED Project, (Muara Tawar & Muara Karang) PT. PLN Jakarta, September 2008.
36. Integrity Expert, PT. Perusahaan Gas Negara (Persero) – Tokyo Gas Engineering (TGE) – PT. Prosys, Long-Term Technical Collaboration Services (LTCS) Project (January – July 2008).
37. Pipeline Integrity Specialist, Pipeline CIPS and DCVG Survey and Evaluation, PT. Badak – NGL & PT. Biro Klasifikasi Indonesia (PT. BKI) Balikpapan Branch (June 2008 – On Going Project).
38. Pipeline Risk and Integrity Specialist for Pipeline Integrity Management (PIM) Project for Gas Pipelines, South Sumatra region, MEDCO, PT. AT Solusi – PT. Biru, Palembang, June – December 2008. Contact Person: Mr. Rachmat Sudjana (Pipeline Supervisor – Asset Integrity) PT. MEDCO E&P.
39. Team Leader, Risk Based Inspection, Gas Receiving Plant, Borang, Indrajaya, dan Gunung Megang, Sumatera Selatan, MEDCO E&P, PT. Biru dan PT. AT. Solusi, February – May 2008.
40. Team Leader, Optimizing Reliability through Integrity Method of Pipeline Subject to Geohazard, PT. Pertamina Gas, Palembang 2008, LAPI – ITB.
41. Senior Pipeline Engineer, Design Project (FEED) on Offshore Pipelines (including material selection), Tuban, East Java, PT. Pertamina - PT. IKPT (Jakarta), PT. AT Solusi, Jakarta (Feb – May 2008).
42. Technical Expert, Development of Onshore Pipeline Operation Manual, ConocoPhillips Indonesia Lloyd's Register Indonesia, Jakarta, 2007. Contact person: Anggiat Sihotang, Assest Integrity Group - COPI.
43. Technical Expert, Free Span Risk and Integrity Analysis of 24" OD Offshore Pipeline Parigi – Cilamaya (45 km), Pertamina E & P and PT. Surveyor Indonesia. Contact Person: Arie Wisianto of PT. Pertagas, Jakarta.
44. Technical Expert, Initial Development of Quantitative Risk Assessment (QRA), West Natuna Transportation System – WNTS (Subsea Pipeline) , ConocoPhillips Indonesia - Lloyd's Register Indonesia, Jakarta, 2007. Contact person: Anggiat Sihotang, Assest Integrity Group - COPI.
45. Pipeline Risk and Integrity Engineer for Pipeline Integrity Management (PIM) Project for Crude Oil Pipelines, South Sumatra region, MEDCO Energy – PT Surveyor Indonesia, Palembang, 2006 – 2007. Contact Person: Mr. Rachmat Sudjana (Pipeline Supervisor – Asset Integrity) PT. MEDCO E&P.
46. Technical Advisor for Detail Design Engineering and Material Selection for Subsea Pipeline Tuban Aromatic Project. PT. Trans Pacific Petrochemical Indotama (TPPI)- WAIJO (PT. Wijaya Karya – PT. Adhi Karya – PT. IKPT JO) & PT. AT Solusi, Contract No. TAP-PO-910-80-ER 003. August – September 2005.

47. Project Manager, Pipeline Integrity Management (PIM) Project, PT. Pertamina (PERSERO) – (DOH - JBB), Cirebon, PT. Surveyor Indonesia, On Going Project, 2005 – 2006. Contact Person: Mr. Arie Wisianto, Head of Gas Pipeline Operation, PT. Pertamina (PERSERO) DOH – JBB.
48. Engineering Material Selection and Economy Analysis for High CO₂ Content Gas Pipeline from Bungin Reservoir to Dayung Process Facility, Jambi – Sumatera Selatan, ConocoPhillips, December – February, LAPI-ITB 2005. Contract Number : GSSJ - 10953, Contact Person: Mr. Handjono Suwono, Engineering Service Manager, COPI, Menara Mulia, 12th Floor, Jl. Gatot Subroto, Jakarta.
49. Team Leader, Survey and Inspection on Cathodic Protection System on 8" Export Line, 21 km, Melibur – Kurau, Kondur Petroleum, S.A, Riau, January 2005, LAPI – ITB. Contract Number: S 51000-1141-1, Contact Person: Mr. Subaga, Head of Field Engineer, Kurau Based, 021-5290-6100/6200.
50. Project Leader on Engineering Analysis and Repair Design of 40" Submarine Pipeline (150,000 DWT) Pertamina UP VI-Balongan, LAPI-ITB (November 2003). Contact: Mr. Edi Suwandi, Engineering Design Group, Pertamina UP VI – Balongan.
51. Team member for "SPM 35,000 DWT Submarine Pipeline Design", PT. Pertamina (PERSERO) UP VI, Balongan, Indramayu, LAPI – ITB 2003.
52. Technical Assistant (TA) on "A Comprehensive Survey on Onshore and Subsea Pipelines & Risers Covering Kurau-Melibur-Lalang-Selatan-Mengkapan Fields", Kondur Petroleum, S.A. Riau April 2003.
53. Field Manager on Cross Country Oil 16" API-5L-X46 Pipeline Risk Assessment (RBI), Balongan Plumpang Jakarta (210 km Pipeline). LPPM-ITB & Pertamina UPPDN III, November 2002 – April 2003. Contact Person : Mr. Arie, Inspection Division, Pertamina UPM III Jakarta.
54. Corrosion Problem, Analysis and Solution at Condensate Injection Piping System, Darajat Geothermal Plant, Garut, Amoseas Indonesia, Inc, LAPI-ITB, March 2002.
55. ECA on Offshore Pipeline Contain Undercut Defect – PT Komaritim and Total Indonesia E&P (2000).

V. Involvement in Professional Training & Workshop

1. Asset Integrity Management System (AIMS), Workshop Team Leader, PT. Badak, LNG, Bontang (March 2023).
2. Reliability Centered Maintenance (RCM) Workshop Team Leader, JOB-Tomori (January 2023).
3. FMECA Training Team Leader, HCML Husky-CNOOC, Madura Limited, PT Winestra, October (2022).
4. Webinar, Risk Based Inspection (RBI), Engineering Critical Assessment (ECA) (2021 – 2022).
5. Training Instructor "Pipeline Engineering from Design to Operation and Maintenance", SENA (2019).
6. Workshop Leader, Asset Integrity Management (RBI, RCM, FMECA), Pertamina Refinery Directory, Lombok (2019).
7. Training and Workshop ECA, RCM, FMECA & RBI for the Last 5 years in various industries (2014 - 2019).
8. Training and Workshop Leader Asset Integrity Management System. PT. LAPI – ITB, Bandung (September 2013).
9. Training and Workshop Leader; "*Risk Based Inspection for Gas Transmission Pipeline and Mechanical Piping at Compressor Station*" PT. Pertamina DOH – JBB, PT. Surveyor Indonesia, and Lloyd Register Indonesia, Bandung, Hotel Jayakarta, July 25 - 27, 2005.

Jakarta, February, 2024



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Various Taufik Project's Involments in Indonesia, Sout East Asia & Middle East (2000 – 2023)



