

Key Relevance
Liquids Integrity Management
Control Room Management
Information Analysis
Integrity Assessments
Fitness for Service
MAOP/MOP Verification
Regulatory Compliance
Project Management

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Job Title:

Senior Project Manager
Integrity

Years with EN Engineering: 3

Total Years of Experience: 25

Primary Office Location:

Warrenville, IL / Houston, TX

Education:

- MS, Welding Engineering
The Ohio State University
- BS, Mathematics
Ohio Dominican University

Professional Organizations & Affiliations:

- American Petroleum Institute
- American Society of
Mechanical Engineers
- NACE

Overview: Mr. Hughes has twenty five (25) years of experience in engineering, management, operations, sales, and education. He has fourteen (14) years of experience in asset integrity and operations specific to the energy industry. Experienced in pipeline analysis, CRM, FFS, and RCA as well as regulatory compliance.

Relevant Projects:

**Control Room Management
Project Manager**

Implemented and managed multiple CRM projects involving plan audits, gap analysis, plan development and alarm rationalization for multiple natural gas distribution companies.

**Integrity Management Program
Project Manager**

Implemented and managed multiple IMP projects involving gap analysis, plan audits and procedure & plan development for multiple companies for both hazardous liquid and natural gas assets.

**Fitness for Service
Project Manager, Engineer**

Manage a multi-disciplinary approach to evaluate structural components to determine if they are fit for continued service due to flaws, damage or severe operating conditions at defined maximum operating pressures for natural gas and hazardous liquid pipelines.

**MAOP / MOP Verifications
Project Manager**

Implemented and managed a multi-million dollar MAOP/MOP Standardization projects involving multiple teams in multiple locations to document and ensure compliance of natural gas transmission systems and hazardous liquid pipelines. Performed due diligence of pipeline material, pump location and pressure testing records, performed calculations, and determined appropriate MOP / MAOP per 49 CFR 192 and 49 CFR 195.

**Information Analysis
Project Manager, Engineer**

Managed and performed comprehensive review of pipeline information regarding potential impact of release, HCAs, historical data, age, product type, pipeline characteristics, terrain, response times, coating and other available information to accurately recommend assessments, program reviews and revisions, remediation and other risk factors for both natural gas and hazardous liquid pipelines.

**Regulatory Compliance
Project Manager, Engineer**

Spearheaded multi-departmental diagnostic review of regulatory status of company assets and implementation of changes resulting in the most comprehensive regulatory status inventory to date. Coordinated and implemented PHMSA and API annual reports.

Review of regulatory status and physical properties of client onshore and offshore assets to provide third party opinions regarding jurisdiction and applicable assessments.

Relevant Projects (Cont'd):

Operating Procedure / Qualification

Project Manager

Procedure and OQ development and maturation including welding, operator qualification and liquids Integrity Management Program procedures.

Material Testing

Engineer

Supervised destructive testing of pipe and weld samples including physical and chemical analysis for various clients. Performed metallography of samples and provided full analysis of results and recommendations.

ECDA / ICDA

Project Manager

Management and implementation of External Corrosion and Internal Corrosion Direct Assessment projects for both natural gas and hazardous liquid operators.

Workshops

Engineer

Coordinated national association's training in Pipeline Repair facilitating all schedules and the acquisition of speakers / demonstrators and caterers ensuring a successful two day experience. Delivered presentations on pipeline repair methods.

National Manuals

Engineer

Part of team that developed the DOT Pipeline Repair Manual and TTO5 as well as a contributing author.

Acquisition Due Diligence

Engineer

Coordinated with Commercial Engineering departments to develop acquisition valuation of potential pipeline acquisitions. Performed document due diligence.

Stress Corrosion Cracking Analysis

Engineer

Analyzed the factors contributing to SCC found on line pipe, determining likely causes and areas of risk for hazardous liquid pipelines.

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Previous Employment

Enterprise Products Partners - Houston, TX Pipeline Integrity Engineer

Led pipeline integrity efforts and programs in pipeline risk management and analysis. Implemented and matured the written Integrity Management Programs, standards and procedures improving efficiency. Coordinated and implemented PHMSA and API annual reports helping improve industry knowledge and safety. Matured and strengthened the assessment method selection process improving assessment data quality.

Recommended preventive and mitigative measures; determined re-assessment interval and methods through informational analysis of pipelines while maintaining system safety and regulatory compliance. Provided Engineering support including welding calculations, material selection, sizing, test pressure, MOP/MAOP/Set Point calculations, evaluation of defects and recommend appropriate repairs improving overall pipeline safety. Provided input to new construction of pipelines and due diligence supporting Pipeline Integrity safety and regulation efforts.

DNV – Columbus (formerly CC Technologies) - Dublin, OH Staff Engineer

Developed, managed, and implemented projects for oil and gas companies resulting in successful completion on time and within budget. Directed engineers to perform applicable testing / research providing clients with detailed analysis. Analyzed pipeline designs, noted areas of concern, and recommended changes maintaining regulatory compliance. Managed and organized national association's training in Pipeline Repair facilitating all schedules and the acquisition of speakers / demonstrators and caterers.

Tested physical and chemical properties of welds, materials, and coatings providing recommendations to clients. Employed Engineering Critical Assessment methods, calculated remaining life and fatigue, determined corrosion high-risk areas, proposed solutions, and verified code compliance improving compliance and safety of client pipelines.

Developed repair, material testing, and welding manuals and procedures used by the U.S. government and various pipeline companies. Delivered presentations on pipeline stress, corrosion, and repair to clients and students

Columbia Gas - Columbus, OH Gas Controller

Calculated cost and benefit analyses of operating strategies optimizing profitability. Performed statistical, trend, and forecast analysis for pipeline operations ensuring safe delivery of sufficient supply. Coordinated pipeline flow via SCADA ensuring uninterrupted natural gas supply to commercial markets. Trained new Gas Controllers. Established and maintained SCADA alarms. Created CADD drawings for new SCADA system. Responsible for day to day operations of the Columbia Gas System.

U.S. Army & U.S Army Reserve Petroleum Specialist / Combat Engineer

Managed facility personnel maintaining integrity of storage tanks and pipelines as section leader and squad leader. Analyzed and managed purchasing and inventory, ensuring combat ready supplies. Constructed and managed mobile pipelines to maintain fuel supplies in the field. Operated heavy machinery as part of construction, demolition of structures, earth movement and fuel transportation.