

Pipeline Performance Group (PPG) Qualifications and Services

PPG has partnered with over 115 client companies and business units across more than 130 control centers, delivering a comprehensive range of Control Room Management (CRM) and Human Factors services. Our expertise includes control room assessments, CRM plan development and implementation, audit preparation and facilitation, new control room design, workload assessments, SCADA HMI evaluation and design, training programs, procedural development, and Fatigue Risk Management.

To date, we have successfully completed more than 900 CRM-related projects and over 540 workload assessments, establishing industry benchmarks for Controller workload, alertness, and task distribution.

PPG is uniquely positioned as the only Human Factors consulting firm that combines practical pipeline shift work experience, deep CRM expertise, and doctoral-level Human Factors knowledge. This integrated approach enables us to develop effective, compliant CRM programs, deliver actionable Human Factors solutions, and implement fatigue risk management strategies that enhance both safety and operational performance.

The result is a practical, experience-driven approach that not only meets regulatory expectations but measurably improves control room performance and reliability.

Global Experience Since 2008 Across the U.S., Canada, Australia, and South America

In our eighteen years of service, we have delivered a comprehensive suite of CRM and Human Factors services, including:

Control Room Management Plans

- Developed over 25 full CRM programs and evaluated more than 50 existing plans

540+ Workload Assessments

- Conducted across pipeline, gas plant, and refinery control rooms

Training Development and Delivery

- Team Resource Management (TRM) for Controllers and supporting personnel
- Fatigue Risk Management (FRM) training
- Filthy 15 Causes of Errors and Accidents
- Emergency Response and Communications training
- Delivered in-person, online, and through interactive virtual sessions

Compliance Assurance Solutions

- Supporting CRM implementation, audit readiness, and continuous improvement

Human Factors Research and Support

- Informed by data from over 2,200 Controllers across key CRM areas, including roles and responsibilities, pipeline safety, SCADA HMI, training, fatigue, shift work, procedures, communication, and job satisfaction.



Safety Culture and Organizational Assessments

- Providing actionable insights to strengthen strategy, elevate safety performance, and drive meaningful, sustained organizational improvement.

Audit Preparation and Facilitation for CRM Inspections

- Supporting successful outcomes with PHMSA, the Texas Railroad Commission, and the Louisiana Department of Natural Resources.

Operating procedures

- Development of task-specific operating procedures
- Evaluation and enhancement of procedure programs

SCADA HMI

- Develop procedures for backup SCADA system and Point-to-Point tests
- Alarm Management Plan implementation facilitation, alarm rationalization, and reviews
- Develop Design Philosophy and Style Guide

Fatigue Risk Management Systems (FRMS)

- Develop and implement FRMS.
- Collaboration with InterDynamics Pty Ltd, providers of FAID™ and advanced fatigue modeling tools.
- Assist in control room development to mitigate fatigue.

Development and Publication of Controller Educational Content

- “Managing Fatigue” annual calendars (2011–present), providing ongoing fatigue awareness and practical guidance
- Monthly fatigue management articles, delivering actionable insights and countermeasures
- Alertness exercises and practical fatigue countermeasures for real-world control room application
- Monthly CRM articles (2015–2022), focused on improving control room compliance
- Industry journal publications and conference presentations, contributing to thought leadership across the pipeline industry
- Webinars and educational sessions, supporting continuous learning and engagement
- Published books and reference materials on Human Factors, CRM, and fatigue management

API Recommended Practice Committees

- Served on the API committee that developed the first edition of API Recommended Practice 1167 (Alarm Management)
- Contributed to the development of API Recommended Practice 1168 (Control Room Management) through review and formal industry feedback
- Served on the API committee that developed the second edition of API Recommended Practice 1165 (Pipeline SCADA Displays)

Contact

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