

# The Augustus Group, LLC

## Maintenance Engineering Edge

Projects | Products | Engineering Consulting



**.....we provide  
technology  
solutions working  
as a member of  
your team.....**

Our goal is to deliver truly differentiated products and services through our national and international partner network. With our experience and our focus on business risk in its broadest sense, Augustus is well positioned to support our clients' evolving integrity & reliability management needs.

Call 281-537-6860  
For More Information  
[www.theaugustusgroup.com](http://www.theaugustusgroup.com)



**The Augustus Group**  
*Projects Products and Engineering Consulting*  
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# The Company

# The Augustus Group

The Augustus Group is privately owned and operated from Houston, Texas. Our consultants have 100s of years heavy industrial engineering and consulting experience.

Our staff consists of knowledgeable and experienced professionals with diverse and varied backgrounds in the process industries.

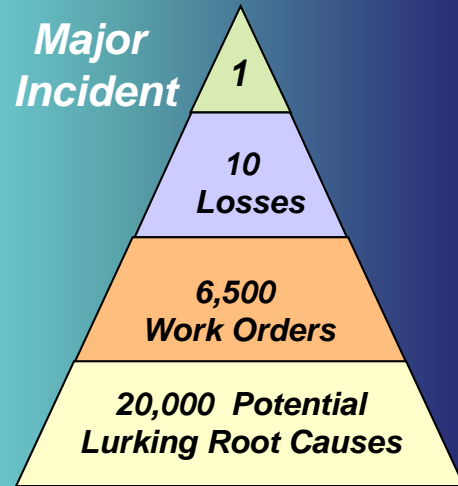
## INDUSTRIES

Augustus has professionals experienced working world-wide:

- Petroleum And Chemical Downstream
- Oil And Gas Upstream, On-shore And Off-shore
- Fertilizer, Food, and Pharmaceutical
- Nuclear And Fossil Power

## SERVICES

- Risk Management Consulting and Coaching
- Risk-Based Inspection (API RP 580/581)
- PSM and MI Management Systems, Procedures, and Quality Assurance/Control
- Fixed Equipment, Piping, Rotating Equipment, Relief Valve Integrity Management
- Atmospheric Storage Tank and Pipe-Line Integrity Management
- Design Basis and Suitability for Service Analysis of Pressure Equipment
- Metallurgy, Corrosion Engineering & Fitness for Service (API RP 579/ASME FFS-1)
- Incident Investigation & Insurance/Litigation Support
- Audits, Seminars, Training, and Coaching
- QA/QC of New Construction, Materials and Equipment
- CAPA and Non-conformance Resolution
- Technical Writing and Editorial Assistance



AUGUSTUS  
CAESAR

# Augustus Engineers and Consultants

# The Augustus Group



## TECHNOLOGY MATRIX & BREADTH OF OUR ENGINEERING EXPERIENCE

- **Acoustics, Robotics, Statistics and Remote Monitoring** – Gene Silverman, Paul Rose
- **Auditing** – Dick Jones, Peter Hunt, Scott Miller, Mike Fox, Ed Merrick, Jim Towers, Gene Rak
- **Bolting and Flange Integrity Management** – Ed Merrick, Robert Noble, Gopal Murti, Jesse Meisterling
- **Corrosion** – Gene Rak, Dick Jones, Marvin Mehler
- **Inspection Management** – David Sanders, Frank Simpton, Dan Lebsack
- **Mechanical Engineering** – Gopal Murti, Raj Barua, Ed Merrick, Dan Lebsack
- **Asset/Mechanical Integrity** – Peter Hunt, Ed Merrick
- **Metallurgy and Materials Engineering** – Ed Merrick, Dick Jones, Mark Koss, Les Loushin, Marvin Mehler, Gene Rak, Dan Lebsack, Gopal Murti
- **Maintenance** – Mike Fox, Peter Hunt
- **Management** – Peter Hunt, Dick Jones, Mike Fox
- **NDE** – Scott Miller, Paul Rose
- **Pipelines and Plant Piping** – Jim Towers, Gopal Murti, Raj Barua
- **Quality Assurance/Quality Control** – Peter Hunt, Ed Merrick,
- **Process Engineering** – Jyoti Das, Justin O’Neal
- **RBI & Risk Management** – Ed Merrick, Les Loushin, Gene Silverman, Marvin Mehler, David Sanders
- **Sales** – Alan Judkins, Ed Merrick
- **Stress and Fracture Mechanics Analysis** – Marvin Mehler, Bob Blackstone, Les Loushin, Gopal Murti
- **Training** – Ed Merrick, Peter Hunt, Dick Jones, Les Loushin, Scott Merrick
- **Welding** – Ed Merrick, Gene Rak, Gopal Murti, Raj Barua

***Our Highly Experienced Engineers are Key to  
Augustus’ Success***

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# Flange Leak Management and Bolting Integrity

# The Augustus Group

## ARE YOU FRUSTRATED by STARTUP DELAYS & OPERATING PROBLEMS CAUSED by LEAKING FLANGE CONNECTIONS?

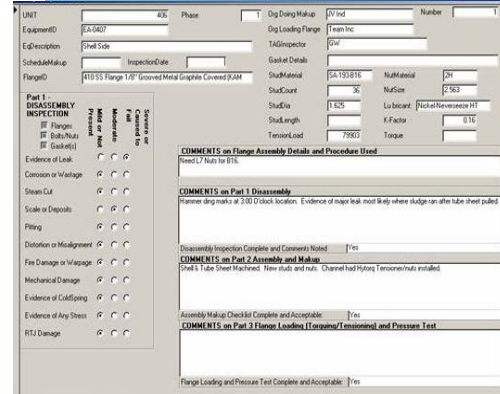
*Augustus is not in the business of doing the work. We ASSIST YOU ensure IT IS DONE properly.*

Augustus can use our SharePoint Solution or if desired - Assett55's Integrity iQ™ Software, we:

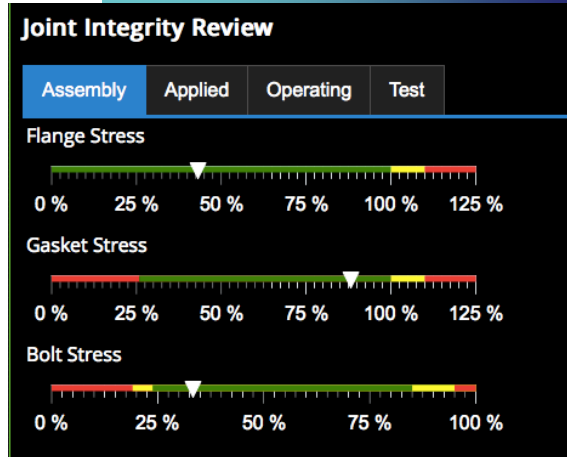
- Prioritize connections including a risk-based option.
- Conduct flange joint calculations (we consider all essential elements to ASME PCC-1 App O, including the effect of tools proposed to be used).
- Provide independent oversight & quality control to assist managing those doing the work.
- Manage work-packs, including procedures, material quality, disassembly and re-assembly quality control checklists, photo-documentation, P&IDs, etc.
- Witness & sign-off as the owner's agent.

We cover management of:

- Documentation of as found condition during disassembly.
- Inspection and Makeup of flanges.
- Controlled Loading by tensioning or torquing.
- Pressure test results & any rework if required.
- Our program includes use of Assett55's Integrity iQ™ software to insure a successful startup.
- We offer, one to two day public and customized private in-house seminars for:
  - Flange management and problem solving for Engineers and Managers.
  - Basic Training for mechanics & maintenance personnel in essentials for success
  - Training on use and application of the of Assett55 Integrity iQ™ software



FLANGE ASSEMBLY QC



SEVERE FLANGECORROSION



# Risk Based Mechanical Integrity

# The Augustus Group

## IS YOUR RBI PROGRAM WORKING FOR YOU?

*Augustus fixes broken programs to facilitate implementation and can take the Mystery out of the Calculations. **LET AUGUSTUS AUDIT YOUR PROGRAM!!***

*We are in the business of assisting you to get the work done; we can also provide oversight and quality control assistance. We ASSIST YOU ensure IT IS DONE properly.*

**Our Principle Engineers and Consultants managed the first RBI project ever implemented in the US.** We have contributed to implementation of RBI Projects world-wide since 1995 and are experienced in use and application of software by Lloyds Register-Capstone, API, Tischuk, TWI, Meridium, PCMS, APTECH, and Reliasoft. We can conduct an efficient informative Audit of your RBI program.

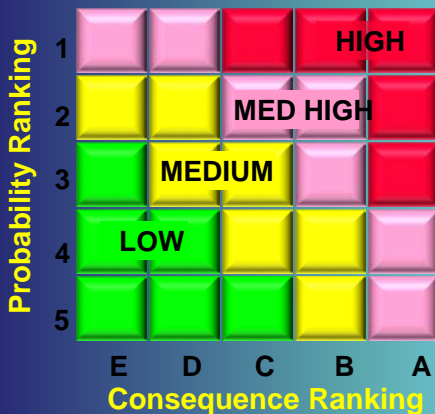
RBI Projects are conducted for many reasons:

- Improving Safety in an Old Plant
- Baseline Inspection Plan For A New Unit
- Planning For An Upcoming TA or Outage
- Program Optimization Using Non-invasive Inspection Technology
- Improvement In Overall Efficiency

### Implementation Process:

- Measures of Success are agreed upon.
- Scope, Policies, Procedures and Training Requirements defined.
- Data Collected
- Metallurgy and Corrosion/Criticality Analysis Done
- Tasks Assigned, Planned, Representative Assets Identified
- Inspections Completed
- Analysis Updated
- Management Reporting and Audit

*Augustus uses **Evidence Based Risk Analysis Principals** meeting API RP580/581 requirements.*

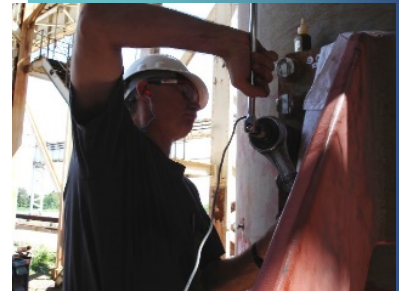


# PSM/MI Management Systems and Procedures

# The Augustus Group

## EXPERIENCE AND APPLICATION

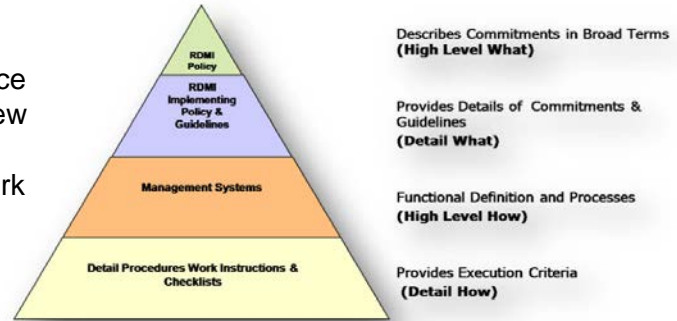
Working with the Chemical Manufacturer's Association (CMA) in 1994 our personnel developed the first document by an industry group to interpret the MI Rule. It was used to train 300 of their member companies.



On August 1, 2013, Executive Order 13650, entitled Improving Chemical Facility Safety and Security was signed. OSHA have initiated steps to modernize the PSM RULE and identified 17 potential rulemaking topics. EPA has followed with their version and Industry has submitted numerous comments. Perhaps biggest anticipated impact is potential for 3<sup>rd</sup> Party Audit requirement.

Augustus has over 3000 procedure and work instruction templates available for maintenance tasks and can assist you by engineering review of procedures prior to TA, Outage, and with Quality Control of your Contractors during work execution.

## LET US AUDIT OR DO A GAP ANALYSIS ON YOUR PROGRAM



KEY to a successful PSM program is your Corporate Safety Culture and effective Management Systems.

- **Document Management**, key to proving compliance – how's it working for you?
- **Process Safety Information**, P&IDs up to date?
- **Application**, covered equipment identified?
- **Written Procedures**, in place used daily?
- **Training**, personnel needing procedures for critical tasks trained and using them?
- **Equipment Deficiencies**, no backlog?
- **Inspection Testing and Maintenance**, work identified and up to date?
- **Control of Material Equipment and Supplies**, all material and equipment installed as designed?
- **Quality Assurance and Control of Contractors**, documentation in order for new equipment, maintenance and modifications?

