



GUARDIAN F.E. MORAN SPECIAL HAZARD SYSTEMS

*Protecting People,
Plant and Production*

Fire Protection Systems for High-risk, High-value Facilities

We have what it takes to get the job done right.

High-risk, high-value facilities need specialized protection from someone you can trust and understands your industry. We have the expertise you need. We've been providing fire protection solutions since 1979, completing over 700 projects worldwide. Our in-depth knowledge of codes, design methodologies, and our skilled installation crews offer you the best fire protection service available.

Focusing on power generation and industrial facilities, our experience with new and retrofit systems is unmatched in our industry. We have the resources and capabilities to meet demanding schedules while delivering proven, cost-effective solutions.



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Learn more about Guardian FE Moran Special Hazard Systems at www.femoranshs.com

Services

From planning to final inspections, we offer all aspects of fire protection and detection services. We're there for you. As a worldwide design-build contractor, you can count on us during every step of the process. Our typical scope of work for each project includes:

- Planning
- Estimating
- Project Management
- Design
- Purchasing
- Fabrication
- Installation
- Start-up testing
- Inspection

In addition, we have an in-depth knowledge of applicable codes, design methodologies, skilled installation crews, and continued success working throughout the world with local authorities .



Systems

We've worked on a wide range of projects and all types of fire protection and detection systems. Our experience with new and retrofit systems for power and industrial facilities is unmatched in the industry. These systems include:

- Wet pipe sprinkler
- Dry pipe sprinkler
- Deluge
- Preaction
- Water mist
- Clean agent
- CO2
- Foam
- Standpipe and hose
- Underground supply
- Fire pumps
- Tanks
- Fire alarm and detection
- Gas detection





GUARDIAN F.E. MORAN SPECIAL HAZARD SYSTEMS

Why us?

Because We Have What it Takes

We know your industry. We've been in business since 1979 and have the experience you want. We're a licensed contractor in over 40 states with in-house licensed professional engineers.

We are in this business for the long haul. Our centralized approach to sales and project personnel offers the opportunity to continue working with people who know your specific requirements.

We also offer:

- Proven solutions for specific special hazard environment
- Competitive pricing
- Resources and experience to meet demanding schedules
- Active planning and coordination
- Sensitivity to the operational requirements of each facility
- Successful experience with a broad range of approval authorities
- Single source solution options
- Strong computer applications
- Unparalleled safety record
- Quality Assurance procedures
- Industry participation
- Qualified field staff



Most of our experienced foremen, design and project management staff have been with us for ten years, and many as long as twenty. They've worked on hundreds of projects and have expertise in all areas of Special Hazard Systems. Our stable, dedicated workforce is committed to getting the job done right.

Safety Comes First

We have a passion for safety. Over the years we've accumulated a superior safety record, with only one accident that resulted in lost time in over 670,000 hours of work. Our focus on safety has resulted in a current EMR of 0.75. We have a well-defined safety program that meets or exceeds the requirements expected in high-risk facilities. Our program includes:

- Head protection
- Housekeeping
- Signs, barricades, flagging
- Safety belts and lifelines
- Emergency procedures
- Road safety (driving)
- Respiratory protection
- First aid facilities
- Rigging and crane safety
- Perimeter guarding
- Trenching and excavating
- Scaffolding
- Toxic substances
- Eye protection
- Fire protection
- Electrical safety



Learn more about Guardian FE Moran Special Hazard Systems at www.femoranshs.com



GUARDIAN F.E. MORAN SPECIAL HAZARD SYSTEMS

About Us

Guardian FE Moran

Located in La Porte, Texas, Guardian FE Moran was incorporated as Guardian Fire Protection in 1981.

Guardian specialized in Fire Protection Systems for high-risk, high-value chemical process facilities in the Gulf Coast region. Guardian has developed a strong reputation as a dependable, service-oriented fire protection contractor intimately familiar with the complex chemical process facilities in the Gulf Coast region.

F.E. Moran Special Hazard Systems

Located in Northbrook, IL, F.E. Moran SHS was incorporated in 1979 as a subsidiary of Armon, Inc.

FE Moran Special Hazard Systems specializes in Fire Protection Systems for high-risk, high-value power and chemical process facilities. In the 29 years of existence, F.E. Moran SHS has completed over 700 projects.

We average 40 projects per year and are currently working on projects worth \$60M.

We belong to these professional organizations:

- National Fire Sprinkler Association
- Society of Fire Protection Engineers
- American Society of Mechanical Engineers
- American Society of Civil Engineers
- National Fire Protection Association - with active committee membership on the following committees:
 - NFPA 850
 - NFPA 851
 - NFPA 214
 - NFPA 16
 - NFPA Subcommittee on Alternative Fuel Steam Electric Generating Plants
- PRB Users' Group



Registrations

We hold these registrations/certifications:

- Licensed Contractor/ Fire Protection Contractor in over 40 states
- Licensed Professional Engineer in 28 states
- Fire Protection Engineer
- NICET Level II Inspectors
- NICET Level II, III and IV designers
- ISO 9000 Compliant QA Program
- UA Star Certification - Superiority in Sprinkler Fitting
- Registered Contractor - Mine Safety and Health Administration

Learn more about Guardian FE Moran Special Hazard Systems at www.femoranshs.com



Broad Knowledge, Unmatched Expertise

We've been providing fire protection solutions for high-risk, high-value facilities since 1979. Our experience over the past year includes working at the following chemical process facility clients:

- AES Deepwater
- Akzo Nobel
- Agrifos Fertilizer
- Anadarko Industries
- Arkema
- Baker Petrolite
- BASF
- Bayer Material Science
- Calpine Deer Park Energy
- Champion Technologies
- Chusei
- Cray Valley
- E.R. Carpenter
- Exxon Mobil
- FMC
- GB Biosciences
- General Polymers
- Kaneka
- LBC Terminals
- Lubrizol Corporation
- MEMC
- Metal Plate Galvanizing
- Pasadena Refining
- Sanyo Chemical
- Shintech
- Sulzer Hickham
- Texas Molecular
- Total Petrochemicals USA
- Zeon Chemicals

Local 24-hour on-call support with personnel that can diagnose and repair fire protection systems typically found in chemical process facilities.

Qualified inspectors

Knowledge of plant processes and safety requirements.





Broad Knowledge, Unmatched Expertise

We've been providing fire protection solutions for high-risk, high-value facilities since 1979, completing over 700 projects worldwide. Our experience over the past six years includes:

- Fifty-six projects at fossil fuel generating plants (including 10 FGD projects) representing over \$63 million of fire protection work.
- Sixty-three projects at combustion turbine / combined cycle generating plants representing over \$35 million of fire protection work.
- Six projects at nuclear generating stations representing over \$700,000 of fire protection work.
- Nineteen projects at industrial facilities (including new ethanol plants) representing over \$17 million of fire protection work.
- Thirty-one projects on power generating or industrial cooling towers and other special structures representing over \$5 million of fire protection work.

Please visit www.femoranshs.com for additional project experience information.

The following provides a representative overview of our recent projects.

Fossil Fuel Generating Plants

Cross Unit 3, 600 MW Fossil Fuel Plant - Pineville, SC
Cross Unit 4, 600 MW Fossil Fuel Plant - Pineville, SC
Springerville Unit 3, 400MW Fossil fuel Plant - Springerville, AZ
A.S. King Plant, 588 MW Fossil Fuel Plant - Oak Park Heights, MN

Combustion Turbine / Combined Cycle Generating Plants

Inland Empire Energy - Romoland, CA
Port Westward Generating Plant - Columbia County, OR
Fox Energy Center - Kaukauna, WI

Nuclear Generating Plants

Browns Ferry Nuclear Station - North Alabama
DC Cook Nuclear Station - Bridgman, MI
North Anna Power Station - Mineral, VA

Industrial / Chemical Plants

Hastings Extraction/Fractionation Plant - Pine Grove, WV
Galmish Loading and Storage Facility - Pine Grove, WV
MGP Riga Ethanol Production Facility - Riga, MI
Pinal Energy Project, Ethanol Production Facility - Maricopa, AZ
Agri-Energy Ethanol Production Facility - Hopkinsville, KY





Industrial / Chemical

Hazardous Waste Treatment Facility, Kimball, NE/Waste Tech Services, Inc.
Strategic Petroleum Reserve, West Hackberry, LA/U.S. Dept. of Energy
Carolina Eastman Facility, Columbia, SC/Carolina Eastman Company
Strategic Petroleum Reserve, Winnie, TX/U.S. Dept. of Energy
Red River Army Depot, Texarkana, TX/U.S. Dept. of the Army
GATX Terminals Corp, Argo, IL/GATX Terminals Corporation
FGAP Facility, Kingsport, TN/Tennessee Eastman Company
Hypergol Stockpile Storage Fac., Cape Canaveral, FL/NASA
Launch Complex 40, Cape Canaveral, FL/U.S. Air Force
Firex Facility, Kennedy Space Center, FL/NASA



Nuclear Generating Stations

Savannah River, Aiken, SC/U.S. Dept. of Energy
Prairie Island Nuclear Station, Welch, MN/Northern States Power
Davis Besse Nuclear Station, Oak Harbor, OH/Toledo Edison Company
Sequoyah Nuclear Station, Soddy Daisy, TN/Tennessee Valley Authority
D.C. Cook Nuclear Plant, Bridgman, MI/Indiana Michigan Electric Company



Combustion Turbine / Combined Cycle

Martin Plant, Indiantown, FL/Florida Power & Light Company
Cane Island Plant, Kissimmee, FL/Kissimmee Utility Authority
Hardee Power Station, Ft. Green Springs, FL/TECO Power Services
Lauderdale Plant, Ft. Lauderdale, FL/Florida Power & Light Company
Chesterfield Unit 7, Chesterfield, VA/Virginia Electric Power Company
Woodsdale Generating Station, Trenton, OH/Cincinnati Gas & Electric
Midland Cogeneration Venture, Midland, MI/Midland Cogeneration Venture
Indian River Combustion Turbine, Titusville, FL/Orlando Utilities Commission
Gravel Neck Comb Turb, Newport News, VA/Virginia Electric Power Company
Cleburne Cogeneration Facility, Cleburne, TX/Tenaska IV Texas Partners, Ltd.



Q. How is Guardian FE Moran related to the other FE Moran companies?

- A. Located in La Porte, Texas, Guardian FE Moran was incorporated as Guardian Fire Protection in 1981. Guardian specialized in Fire Protection Systems for high-risk, high-value chemical process facilities in the Gulf coast region. Guardian has developed a strong reputation as a dependable, service-oriented fire protection contractor intimately familiar with the complex chemical process facilities in the Gulf Coast.

Q. Can you help me prepare a budget estimate for a potential project at my facility?

- A. Yes, we help our clients do this all the time. We have the experience to develop reliable project budget estimates with limited information based on "rules-of-thumb" and the data that we maintain from past projects. We provide this support to our clients on a regular basis to help increase the accuracy of their budgeting decisions.

Q. Can you meet the safety, insurance and bonding requirements of my facility?

- A. We have a passion for safety. Our safety program is well defined and followed. However, we also make project-specific enhancements to address site-specific conditions and client program requirements. We provide strong insurance coverage from top-name providers and have over \$20 million dollars of bonding capacity due to our strong financial condition and performance record.

Q. As a union contractor, is it difficult for you to compete with open shop companies and projects?

- A. We have many projects at non-union as well as union project sites. Our union field personnel are well trained and efficient. Working with the 669 Local Road Sprinkler Fitters allows us access to trained installation personnel anywhere in the country. We also have strong working relationships with various autonomous sprinkler fitter locals allowing us to work effectively within their territory.

Q. What manufacturers' equipment do you utilize?

- A. We work with fire protection equipment supplied by all approved manufacturers. In fact, in order to maintain our independence when recommending solutions, we do not act as a distributor for any manufacturer.