

The Business Roundtable

Model for a Constructor Safety Process

Gulf States Inc.

1989 Constructor Award Recipient

SIC 17 - Special Trade Contractors

More than 200,000 Man-hours Worked Annually

**Construction Industry
Safety Excellence Award Program**

The Business Roundtable
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New York, New York 10166
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MODEL FOR A CONSTRUCTOR SAFETY PROCESS

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DEFINITIONS

The Business Roundtable...an association of about 200 chief executive officers of American companies in all fields who examine public issues that affect the economy and develop positions that seek to reflect sound economic and social principles.

CICE...a cooperative long-term campaign of the construction industry, open to all owners, contractors, architects and engineers, labor organizations, regulators, construction professionals, academics and others interested in any aspect of construction. **Its objective: To improve the cost effectiveness of the American construction industry.** It began as the Construction Industry Cost Effectiveness Project of the Construction Committee of The Business Roundtable. It is composed of task forces responsible for continuing to develop and implement recommendations to enhance construction cost effectiveness.

A-3, “Improving Construction Safety Performance”...a guideline developed by the CICE Task Force encouraging owners to develop programs and procedures which would influence contractor safety performance. The A-3 Report outlines potential long-range cost savings to owners by improving contractor’s performance.

CISE...a cooperative effort between owners, contractors and contractor associations to improve construction safety awareness with a goal of reducing human suffering and construction costs. **The Construction Industry Safety Excellence Awards program recognizes Roundtable members and constructors who have utilized the recommendations of A-3, Improving Construction Safety Performance, and achieved superior safety results.**



OBJECTIVES OF THE CISE AWARDS PROGRAM

- Improve safety management and results
- Enhance the use of CICE Report A-3 Recommendations
- Improve the availability and the quality of safety statistical data
- Enhance the cooperations between The Business Roundtable and construction industry associations
- Increase the safety awareness of owners and constructors
- Provide safety models and encourage their uses
- Maximize the impact of Roundtable efforts to achieve Report A-3 objectives
- Establish credible, unique, prestigious, nationally recognized awards



**WORKING
TOGETHER
FOR A BETTER
TOMORROW**

GULF STATES INC

GULF STATES INC.

Gulf States Inc. is an open shop industrial contractor functioning as a general contractor while maintaining specialties in electrical / instrumentation and maintenance services. The company was founded in 1969. The corporate office is located in Freeport, Texas. Gulf States Inc. was ranked number seventy-one (71) of the Top 400 Contractors in the 1989 Engineering News-Record Survey. Approximately two thousand (2000) employees are currently working on construction and maintenance projects throughout the United States with offices in California, Louisiana and Texas.

Gulf States Inc. has developed a strong safety process by working with large industrial clients recognized for their safety standards. The Company's Continuous Improvement Process (CIP) and Drug Program, initiated in 1986 by top management, has resulted in significant improvements in safety performance as reflected by an EMR (experience modification rate) of 0.55.

Gulf States Inc. is pleased to share their safety philosophy and process with others in an effort to continually improve the safety performance of the construction industry. Please contact the Corporate Safety Director at (409) 233-5555 for more information or write to:

Gulf States Inc.
P. O. Box 856
Freeport, Texas 77541
ATTN: Corporate Safety Department

A synopsis of Gulf States Inc.'s application for the Constructor Safety Excellence Award is printed as a Model For A Constructor Safety Process. Supporting information is available upon request to Gulf States Inc.

MODEL FOR A CONSTRUCTOR SAFETY PROCESS

EXECUTIVE SUMMARY

Gulf States Inc. has had a structured safety process since its inception in 1969. Management recognized early in the development of the company practices that safety was an important requirement and worked with client companies recognized for their safety standards to develop an aggressive safety program. Management's commitment and willingness to interact and respond to personnel input through the Continuous Improvement Process (CIP) has allowed GSI to develop a dynamic safety process adapting to the industrial work environment.

Managing safety in this manner has resulted in a reduction in the Company's Experience Modification Rate (EMR) from 0.88 in 1986 to a 0.55 overall rate in 1989. This equates to a net reduction of 38%. The man-hours worked during this time frame ranged from 1.5 - 3.9 million per year.

Summary of Statistics:	Gulf States Inc.	National Average
Fatalities / Lost Workday Cases	0.7	7.1
Experience Modification Rate	0.55	1.0

Gulf States utilizes the quality process in safety management. The fundamental principle is "the continuous improvement in quality and productivity of all forms of work." All employees become responsible for instituting organized change in the way the business operates. Management made safety the first directive of the Continuous Improvement Process, and asked employees for their involvement in the identification, analysis and solutions of safety problems.

Development of effective safety training programs, continuous upgrading and reinforcement of existing programs, and anticipation of future training needs has distinguished Gulf States nationally as a leader in training. Management also strongly supports and participates in safety training companywide. GSI does not put an employee on-the-job without the necessary "safety tools" to

perform his / her work. We believe it is our primary responsibility and obligation to equip every employee with the knowledge, skills and motivation to work safely.

Gulf States Inc. recognizes alcoholism and drug abuse as highly complex illnesses which can be successfully treated. A Contraband Interdiction Policy was established in 1986 that prohibits illegal and unauthorized drugs, alcohol, weapons, and other related items on Gulf States' premises and work locations. Various CIP Teams developed a drug program which meets the needs of the company and is acceptable to the employees. Employees are encouraged to request assistance and are assured strict confidentiality and job security when entering any rehabilitation program.

Gulf States Inc. selects subcontractors with good safety records. The safety director is involved in the selection process. The company works closely with its subcontractors to develop and improve their safety programs and performance. Two of our primary subcontractors have received CISE Awards.

Management's commitment to setting goals and measuring performance, emphasis on training, aggressive management of the safety environment, including implementation of a strong drug screening program, and properly selecting subcontractors allows the company to continually improve safety awareness in all our operations.

The Company's approach for managing safety is outlined in the Elements of Gulf States' Safety Process.

ELEMENTS OF GULF STATES' SAFETY PROCESS

Management's Commitment To Safety

Gulf States Inc.'s management commitment to safety begins with our basic Core Values, the principles on which we operate. The Core Values state in part ... " *Our employees are our most important asset. Safety, Training, Quality, Productivity, Involvement and Opportunity will be emphasized at all levels.*" As an industrial contractor our business is labor intensive. The superior qualifications and performance of our employees gives us a competitive edge. The safety, health and well being of all our employees is a key to success.

Long-term growth and profitability are directly impacted by safety performance. Following a downturn in the economy in the early 80's, a rapid escalation in business was realized and a significant increase in cost was identified as a result of our safety performance. At that time management re-evaluated the

safety effort. To ensure that safety is given proper priority, it is addressed as the first item of business in weekly operating meetings and Board Meetings. This may seem simple, but it creates a network of reporting that brings all accidents/incidents to the attention of top management directly and quickly.

Commitment to safety is demonstrated by emphasizing safety during field visits and by the timely review of accidents / incidents. A high profile in safety is maintained at all times. Safety is considered first on job performance reviews, evaluations and disciplinary action. *Safety is a condition of employment.* Safety policies, procedures and programs are communicated companywide through a myriad of medias including training at all levels, staff meetings, tool box meetings, accident reviews, the company newsletter and posters.

Annual budgets and personnel projections are established prior to the start of each fiscal year with consideration for safety requirements. Items included in the budgeting process are corporate safety personnel, on site safety representatives, the drug program, training, safety equipment, communications and award / recognition programs. Long-term planning is done at periodic strategic planning meetings.

Continuous Improvement Process (CIP)

The management of Gulf States Inc. recognized the need to make a major change in management style early in 1986. If the Company were to sustain its competitive position in the field of construction and maintenance in heavy industrial areas, and meet the demands of the customer for higher and higher quality products and services, change was necessary.

The Board of Directors chose to use the W. E. Conway "The Right Way To Manage" process based on the quality management concept developed by W. Edwards Deming. The fundamental principle of Deming's concept is "the continuous improvement in quality and productivity of all forms of work - in all areas of operations to eliminate waste - waste of time and energy, capabilities, materials and equipment/capital." All employees become responsible for instituting organized change in the way the business functions. Management made safety the first directive of the Continuous Improvement Process. Employees were asked for their involvement in the identification, analysis and solutions of problems.

The CIP Safety Team is the most visible and strongest quality team. The leaders and members change as job assignments change which gives the team continuous rejuvenation and a variety of view points on projects. The

team does not dictate the direction of the Safety Department, but enhances and strongly supports the safety process - as additional eyes, ears and hands assisting in the safety efforts, complementing the Safety Department role. The team is made up of a cross section of Lump Sum and Maintenance Managers, Safety Directors, and Training and Personnel Managers. Their mission statement is: *To Provide Continuous Improvement in Safety Awareness Through Training, Communications and Motivation.*

The team's constant review of GSI's operations as related to safety and the effect it has on the employees attitude and behavior has produced a positive focus on safety awareness. Employees thrive on being heard and knowing they can make a difference. Management's support of the Safety Team in terms of cost, time, manpower and other resources expended is far outweighed by the reduction of accidents, injuries, lost time, workers compensation costs and the boost in morale. Management has also found that solutions to problems generated by CIP Teams, made up of a cross section of employees, are successfully put into practice more often and more quickly than solutions developed through other methods.

Drug Program

Gulf States Inc. is dedicated to maintaining a safe working environment for its employees, the employees of its customers, visitors, other contractors and the general public. A Contraband Interdiction Policy was established in 1986 that prohibits illegal and unauthorized drugs, alcohol, weapons and other related items on Gulf States' premises and work locations. The Policy provides for periodic and unannounced contraband searches and inspections, including urine screening of all individuals at any facility according to the guidelines of our policy statement. Management established a general policy and requested the CIP Training / Personnel Team to develop a drug program which would meet the needs of the company and be acceptable to the employees. The CIP Drug Team continues to monitor the program, making improvements as needed. The implementation of the Drug Program and our other safety operations has had a direct impact on lowering our EMR by 38%. This reduction in EMR has allowed GSI and our clients to realize a significant insurance savings.

Gulf States Inc. recognizes alcoholism and drug abuse as highly complex illnesses which can be successfully treated. Supervisors are trained in identification of the troubled employee, signs and symptoms of substances abuse, policy administration and legal considerations. Employees are encouraged to request assistance and are assured strict confidentiality and job security when entering any rehabilitation program.

Company nurses were hired to conduct pre-employment, random and post accident / incident drug screening, pre-employment physicals and maintain statistics. Pre-employment screening has identified that over 11% of all applicants tested positive for substance abuse. Avoidance of these potentially unsafe employees significantly reduced the risk to Gulf States and has had a positive impact on accident rates and severity. *Cooperation with searches, inspections and screening procedures is a condition of continued employment with Gulf States Inc.*

Administration and Documentation

Complete and detailed data on accidents provides the information necessary to appropriately manage safety. All employees, subcontractors, suppliers, vendors and owner / clients are required to immediately report all work- related accidents, incidents and unsafe conditions or acts to supervision regardless of severity. "Incidents" are defined as near misses or any situation which may cause injury or equipment damage. Many constructors look at gathering data as a problem, GSI looks at it as an opportunity. Data on incidents often indicates trends which can be corrected before an accident occurs.

Supervisors are required to immediately contact the appropriate Safety Director and / or Manager on all accidents and incidents. A written report with a preliminary investigation is completed and submitted to the Corporate Safety Department within 24 hours. All investigations are made as soon as possible after an accident / incident occurs. Investigations are performed by first line supervision. All serious and disabling injuries are thoroughly investigated by the Line Foreman, Field Supervisor, Division Manager, Safety Director and Division Vice President. Client / owner representatives are also encouraged to participate.

The final report of investigative findings, contributory causes and corrective action(s) taken to prevent reoccurrence of the accident will be made by the Manager or Safety Director. Copies of the final report are sent to the Safety Department and Division Manager. Reports are compiled by the Safety Administrator for safety communications throughout GSI - to management, superintendents, line supervisors, crews and support staff.

Preliminary and final accident reports are maintained at the Corporate Safety Department and the project site. In addition to the OSHA required documentation, the Corporate Safety Department maintains records on:

- Accident / Incident Reports and Investigations
- First-aid Cases

- Jobsite Safety Inspections
- Equipment & Tool Inspections
- Safety Training
- Drug Screening Data
- Hearing Conservation Program Log
- Tool Box / Safety Meetings

Safety statistics and records are reviewed to determine topics to be emphasized in safety meetings and training. For example, if eye injuries have increased, literature on the type of eye protection and requirements for various work situations is distributed.

Training

Initial safety and health orientation for new hires begins with the review of the Safety Policy, Safety Rules and Procedures, the Contraband Interdiction Policy and a pocket sized Safety and Loss Prevention Manual covering general information on clothing, long hair, smoking, running, horseplay, motor vehicles and pedestrians, safety requirements, safety techniques, personal protection, tools, equipment, fire protection, job requirements, basic hand signals, HAZ COMM and useful tables and charts. Each applicant's signature is required acknowledging the receipt of orientation and written policies.

New hire safety indoctrination includes:

I. Safety Orientation

- Caution Signs Seen in The Work Place
- Safety & Loss Prevention Manual *
- Review of Accident / Incident Reporting
- Emergency Phone System / Numbers

II. Training Conducted

- Basic Safety Rules and Emergency Procedures
- HAZ COMM (The Right To Know) Training and Testing
- Hazardous Materials / Classifications
- Lock-Out / Tag-Out Training and Testing
- Respirator Training and Testing
- Full and Half Face Escape Training
- Fit Testing and Medical Certification
- Heavy Equipment Certification
- Training and Testing

III. Review of Personal Protective Equipment

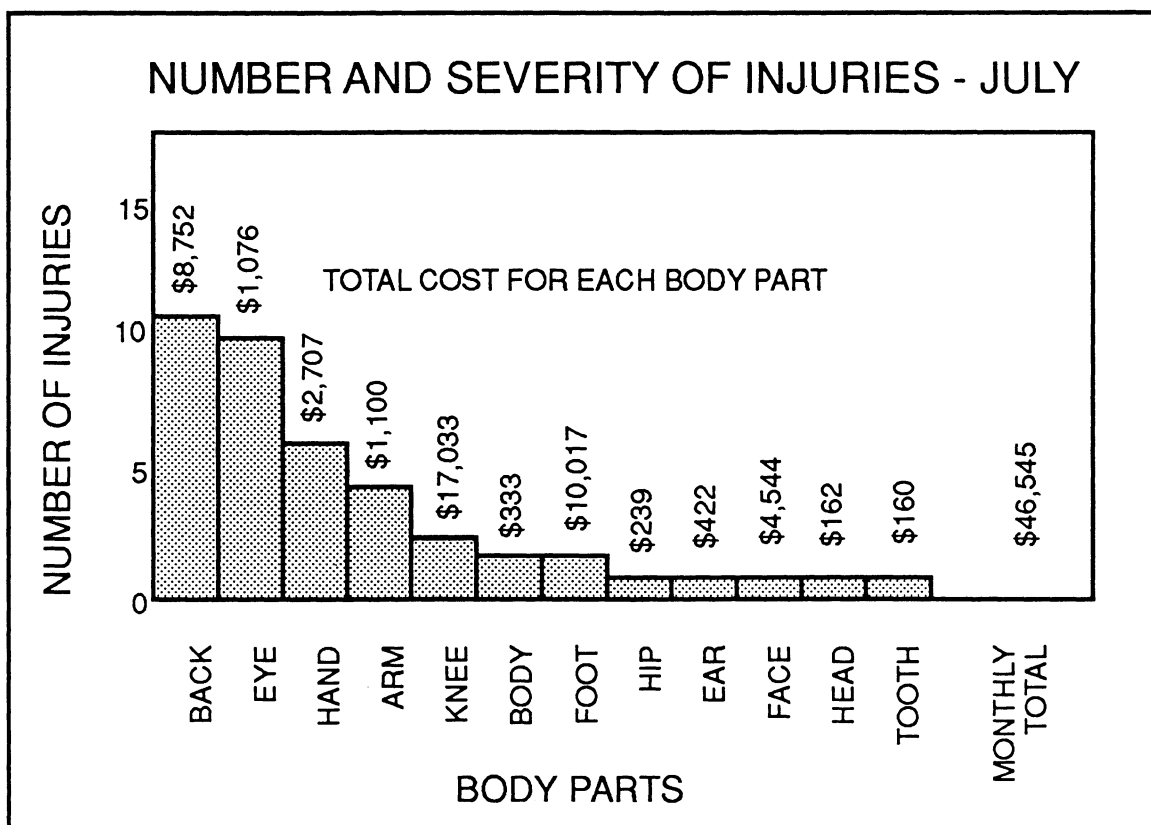
IV. Client / Owner Facility Orientation

- Hazardous Work Conditions
- Additional / Speciality Protective Equipment

** Employee must have on person at all times*

Safety training needs are coordinated between our Safety Department and CIP Teams. Programs are continually reviewed, updated, revised and added. GSI has also formed supplier / vendor teams to work on safety concerns and compliance to our process.

Lock-Out / Tag-Out Training is conducted and documented for all employees annually. HAZ COMM Training is conducted throughout the Company as mandated by law. Other in-house programs include man lift, mobile hoist, bucket truck, flex lift and digger truck training.



Typical chart of accidents and severity of injuries used in safety meetings to discuss corrective and preventive action(s) taken.

Training programs offered through local Contractors Safety Councils include CPR, defensive driving, first aid, forklift training, aerial lift training, OSHA courses and general safety standards. Over 6,000 employees have attended these various programs paid for by Gulf States.

Printed materials used as training vehicles to relay available training opportunities and safety communications companywide include the company newsletter, safety reports, posters and brochures. Safety personnel utilize an extensive safety video library to enhance training at the field level.

Safety statistics and accident costs are discussed with supervisors and managers so they are familiar and equipped with the skills and knowledge to be effective leaders. Charts, workers compensation claims, and frequency rates become part of their safety awareness training. Also how and what these statistics effect, i.e., humanitarian aspects, dollar costs and savings equating jobs awarded. Supervisors must know OSHA requirements, liabilities, and penalties for non-compliance and how it effects the job, the employee and the Company.

Supervisory training includes in-house programs coordinated by the Human Resources Department with involvement of the Safety Department, top management, supervisory personnel, CIP Teams, outside consultants, and professional speakers. A three hour accredited Supervisory Training Course is also mandatory. Guidelines and updates are distributed to supervisory personnel and managers as new programs are adopted or changes are made.

Examples of recent supervisory safety materials:

- Accident Statistics
 - By Manager / Supervisor
 - By Project
 - By Body Parts
 - By Severity
- Accident / Incident Reporting and Investigation
- Workers Compensation Statistics
- What To Do In Case of an Accident (including a Flow Chart)
- Your Responsibilities
- Don't Assume Everyone Knows
- Disciplinary Action Guidelines
- Attitude and Behavior
- Incentives / Recognition Programs

Managers and safety personnel are encouraged to attend courses such as a ten hour OSHA Course and SQC Training. Safety Directors and personnel attend all in-house training programs, as well as training offered by Employers Casualty Company, the National Safety Council, Texas Safety Association, Texas A & M University, local colleges and client / owner offered training. They participate in client / owner “Brown Bag Safety Meetings” and programs offered by local Contractors Safety Councils. As members on Contractors Safety Council Boards, the Houston Business Roundtable Safety Committee, the Western Council of Construction Consumers Safety Committee, the Health Resource Committee, and the CICE Committee, GSI safety personnel support higher levels of safety awareness throughout the construction industry.

Jobsite

Orientation

Safety preparation, planning and training establishes the foundation for the execution of work in the field. *Safety starts before the work begins.* Prior to the start of each new job the Manager / Supervisor receives a pre-job orientation from the Division Manager, and from the client /owner when required. The Manager / Supervisor is briefed on the job safety requirements including a review of accident and injury report forms, safety equipment supplies, and most importantly, a review of unusual or particular safety hazards inherent to the job. Special safety considerations such as trenching, asbestos removal or confined spaces, are planned during the bid stage and are reviewed prior to the onset of construction. OSHA or MSHA regulations, which pertain to the work, are stressed and special client / owner requirements are reviewed.

Specific safety and health orientation is conducted at new construction projects and for new employees entering operating areas for the first time. This orientation is usually conducted by the client / owner representative. On large projects a GSI safety engineer remains on site through completion and becomes an integral part of the construction team.

Medical and Emergency Preparedness

The first priority of the Manager / Supervisor is to locate the nearest medical and emergency facility. Locations and phone numbers are acquired during pre-job orientation. These are clearly posted throughout facilities and sites and are marked on hard hats. A 24-hour emergency phone number is

designated if a Superintendent, Supervisor, Manager or Safety Director is not available during overtime or weekend work situations. During hours other than 6:00 a.m. - 5:00 p.m. an answering service receives calls and contacts the appropriate Manager / Supervisor.

AN INJURED EMPLOYEE MUST NEVER TRANSPORT THEMSELVES TO MEDICAL FACILITIES FOR TREATMENT.

Emergency preparedness procedures assure notification, communication and accident assessment during any crisis and are modified for each jobsite to include:

- Local Emergency Phone Numbers
- Emergency Reporting
- Medical Treatment
- Maps and Routes

Personal Protective Equipment

Gulf States Inc. utilizes information obtained from both its employees and clients / owner representatives when making analysis to determine the need for personal protective equipment. In all cases the use of engineering controls are explored to minimize the need for protective equipment. When effective engineering controls are not feasible, appropriate equipment is issued to the employee after instruction and training. Employees may be required to wear:

- | | |
|-------------------------------|----------------|
| • Sideshield safety glasses * | • Long sleeves |
| • Safety belts or harnesses | • Flash suits |
| • Designated respirators | • Hard hats |
| • Hearing protection | • Hairnets |
| • Steel toe footwear | • Goggles |
| • Full face shields | • Gloves |

** Required on all GSI jobs*

All personal protective equipment is inspected to meet or exceed any standards or regulations relating to that equipment. Accidents / incidents are reviewed throughout the year for any trends which may be corrected by a change or alteration of the type or brand of personal protective equipment.

Safety Meetings

Gulf States considers weekly safety meetings as one of the most important features of the Safety Program. Topics are safety subjects relevant to the job, such as housekeeping, special area hazards, accidents or incidents that involve employees, and accident prevention. Basic safety rules such as wearing gloves, hard hats, safety glasses, goggles, etc. are covered on a regular basis to keep employees refreshed on the importance of wearing the proper protective equipment. Weekly safety meetings are scheduled by Supervision and conducted by any of the employees attending the meetings. Gulf States believes that all employees should participate in conducting weekly safety meetings, because it takes every employee's involvement in the safety process to realize and understand the importance of working safely.

"I hear - I forget, I see - I remember, I do - I understand "

A schedule of the weekly safety meetings and the area in which they are being conducted is turned into the Safety Department so that Safety Directors and management can periodically attend. Information and videos for safety meeting topics can also be obtained from the Safety Department. All weekly safety meetings are documented.

Permits

GSI Supervision and client / owner representative(s) determine if "Hot Work / Hot Tap Permits" are required prior to mobilization. Hot Work / Hot Tap procedures are developed and written by the Manager / Supervisor after walking through the job and reviewing the job scope. Written procedures are discussed with client / owner representative(s) prior to issuing permits.

Special jobs, such as welding, cutting, or use of open flame devices, in any process pose a fire hazard. Careful attention to job detail and procedures is required. Firewatches, fire extinguishers, tarps and other protection are provided as needed. All requirements are listed on "safe work permits" and are posted at a designated spot on the jobsite. Precautions are taken to ensure the safety of all personnel. Applicable permits are read and followed to the letter.

The following written permits with proper authorization are required before activity begins in operational and / or construction areas:

- Work Permit
- Tank Entry Permit
- Excavation Permit
- Flame Permit
- Operator's Permit
- Hot Tap Permit
- High Voltage / Hot Work Permit
- Electrical Safe Work Permit
- Restricted Access Permit
- Powder Actuated Fastener Permit
- Critical Lift Permit

Inspections

Tools and Equipment

In addition to OSHA requirements detailed inspections are performed on tools, equipment and site conditions. Employees are required to give each tool or piece of equipment a visual inspection before using it each time. "Defects" are tagged immediately, the Supervisor / Manager is notified and non-repairable tools are destroyed. Power hand tools are inspected before being assigned to a project or jobsite. Records of inspections are maintained. All electrical power tools and extension cords are inspected on a quarterly basis. Proper grounding is in accordance with our Assured Equipment Grounding Conductor Program.

Only certified operators are to operate heavy equipment. Motor vehicles and power equipment are to be operated by authorized personnel only. Vehicles must have current inspection stickers and State license tags. Drivers must have a valid drivers license and seat belts are to be fastened at all times while operating.

The employee is to make a check of his / her work area at the start of each day to ensure conditions are "OK" - condition of sharing access, power equipment moving in, new excavations, occupancy with other crews, workers moving overhead, or any other changing conditions.

Site safety inspections are made weekly by the Manager / Supervisor. A check list used for inspections is completed, signed and forwarded to the Corporate Safety Department.

Inspections cover :

- Personal Protective Equipment
- Jobsite Safety Information and Documentation
- Housekeeping
- Fire Prevention
- Tools
- Ladders
- Scaffolds
- Cranes, Hoist & Derricks
- Motor Vehicles
- Material Handling & Storage
- Flammable Gases & Liquids
- Welding & Cutting
- Steel Erection
- Compressed Air

Safety Audits

Safety quality is applied through special site inspections initiated by the CIP Safety Team. The purpose of the audit is to assist the Manager / Supervisor in identifying all the safety concerns and requirements at his / her site. Audits are conducted monthly by a team made up of the CIP Audit Team Chairman and one CIP Safety Team member, one Division Manager, one Lump Sum Manager / Supervisor, one Maintenance Manager / Supervisor, one Safety Director and one Field Foreman. Site Managers / Supervisors and client / owner representatives are given notice one week in advance to allow necessary permits to be obtained. Unannounced audits are conducted at Gulf States facilities such as the tool room, fabrication shops and corporate offices. A safety inspection form is completed during the audit. Copies are sent to the Supervisor / Manager and management for review.

Supervisors / Managers respond in writing to the audit team chairman noting "corrective actions taken." The chairman returns to the site to "walk through" the changes made with the Supervisor / Manager. The chairman documents the final visit.

Subcontractors

When subcontractors are chosen, the Safety Director is included as a member in the selection process. He evaluates their performance by checking their OSHA Form 200 Log, their incident rate, and the existence of safety and drug programs. Adequate insurance coverage by the subcontractor is also confirmed. *Any subcontractor not complying will not work for Gulf States Inc.*

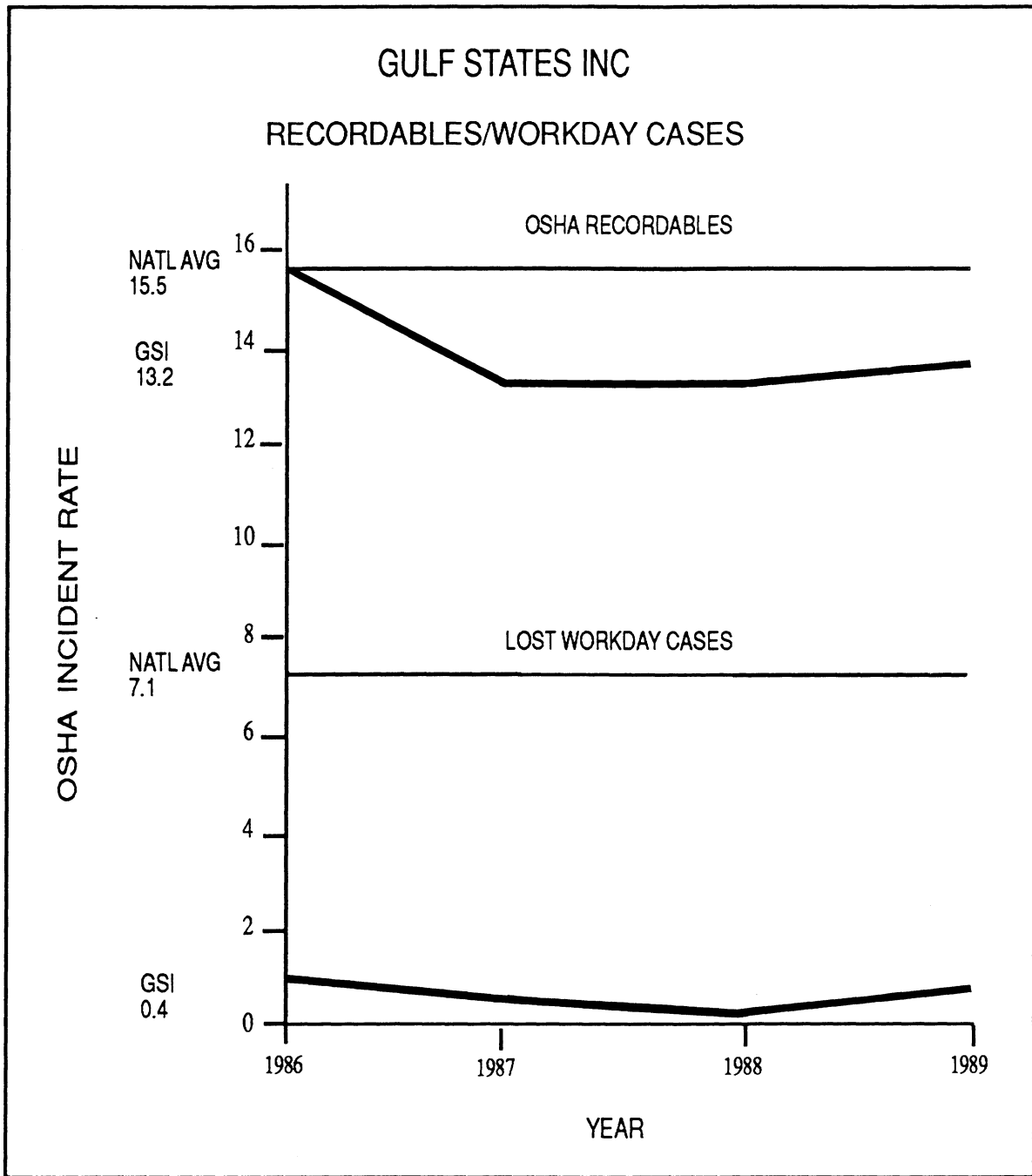
Subcontractors are responsible for the safety, health and first aid treatment of their employees and agree to cooperate in efforts to prevent injuries to personnel employed at the jobsite by requiring safe work procedures and by eliminating unsafe conditions. Subcontractors are required to promptly report all injuries and / or property damage involving their work or employees. Such reports are in writing on an acceptable form. Jobsite health and safety rules applicable to the project will be available at the jobsite and are enforced by the subcontractor.

Subcontractors perform their work in accordance with safe practices, taking all reasonable precautions to protect the facility and adjacent facilities, workmen and the public. Prior to commencement of work, subcontractors become familiar with GSI's safety regulations and all occupational safety regulations set forth by applicable laws. Subcontractors are held accountable for full compliance with all such regulations, and are periodically audited by GSI for compliance with federal and state standards.

Key subcontractors request job performance evaluations on productivity, quality and safety. Scheduled reviews on safety, quality and performance allow timely adjustments, optimizing safety performance.

PROVEN RESULTS

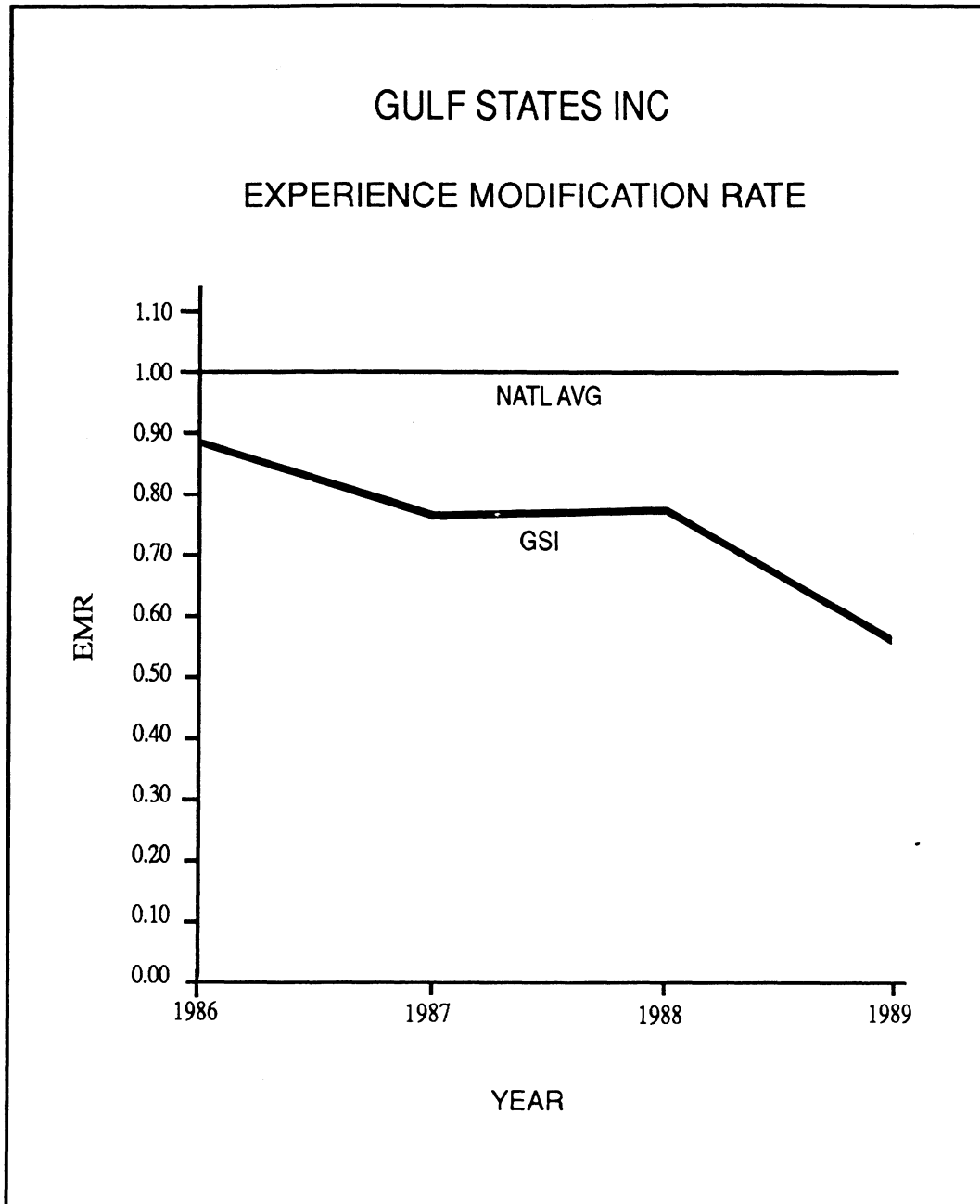
Gulf States' experience modification rate was reduced from 0.88 in 1986 to 0.55 in 1989. This 38% improvement reflects analysis of our decrease in OSHA recordables and lost workday cases. The OSHA recordables injury rate has decreased from 15.5 in 1986 to 13.6 in 1989 and has averaged 13.2 for the last three years. This compares to the national average in 1988 of 15.5 - 15% better than the national average. OSHA lost workday cases have decreased from 0.9 in 1986 to 0.7 in 1989 but has averaged only 0.4 for the last three years. Compared to the national average of 7.1 during that three year period, **Gulf States has performed 18 times better than the national average.** This reflects outstanding performance in controlling the number and severity of accidents.



GSI's recordable rate has decreased to 13.6 - 15% better than the national average of 15.5. In comparing lost workday cases to the national average of 7.1, GSI has performed 18 times better with a 0.4 average for the last three years.

If Gulf States' safety performance had matched the national average, the number of recordable accidents in 1989 would have been 301 and the number lost workday cases would have been 138. By aggressively managing the safety process and enjoining the employee through quality into the safety process, the number of recordables was 263 and the number of lost workday cases was only 13. These results were achieved while working on over 200 projects each year and man-hours grew from 1,820,000 in 1987 to 3,880,000 in 1989. The projects were composed of lump sum and cost plus work,

maintenance at operating facilities, and at new construction sites. Based on actual statistical costs of insurance claims at our jobsites, ***COSTS OF OVER \$2.8 MILLION WERE AVOIDED IN 1989 AND MORE THAN \$5.3 MILLION DURING THE LAST THREE YEARS.*** Of greater importance is the welfare of our employees due to their safety performances; 38 avoided injuries all together and 125 lost workday cases were prevented in 1989. ***When compared to the national average the total lost workday cases avoided from 1986 to 1989 were 267.***



Gulf States' superior safety performance is reflected by the 0.55 EMR - equating a 38% improvement.

CONCLUSION

Open communications between top management and employees establishes an atmosphere for the growth of safety performance in the company. The strength and commitment of management is reflected in clear, precise communication of the expected level of performance in safety. The quality process through the CIP Safety Team allows the employee to assist in the direction and improvement in the overall safety effort.

Elements essential to a strong safety process are:

- Top Management Driven and Supported
- Strong Flexible Leadership
- Written Policies and Procedures In-Place
- Effective Upward and Downward Communications
- Quality Process Applied to Safety
- Valid Drug Screening Program
- Skills and Knowledge
- Analysis of Detailed Safety Statistics
- Training / Training / Training

***“ WORKING TOGETHER FOR A BETTER TOMORROW “
Must Include Safety***

For long-term survival the construction industry must improve and grow by changing its methods of doing business. This would include modifying systems, changing the mind-set, improving efficiency and reducing cost for both ourselves and our customers. Gulf States' goals are to furnish the highest quality construction at the most competitive price, while building a better America and maintaining our status as a corporate leader in our community and the construction industry.

CONSTRUCTOR SAFETY AWARDS REQUIREMENTS

Purpose of the CISE Awards Program

The Constructor Safety Awards of the Construction Industry Safety Excellence (CISE) Awards Program recognizes commendable safety performance of individual constructor firms, while simultaneously involving the National Construction Industry Associations in the nominating process. The awards convey The Business Roundtable's strong support of constructor safety performance in full recognition of the fact that constructors have the primary responsibility for execution of on-site safety, by working in conjunction with the owner and architects / engineers to ensure an overall safe workplace.

Criteria For Application Evaluation

The award evaluations are based on:

- OSHA injury/illness statistical data for the constructor's site personnel
- Effectiveness in managing subcontractors' safety performance
- A written synopsis of the constructor's safety management system
- A review of safety performance with three client companies

Award Categories

Annual safety awards are presented to constructor firms in each of the following Standard Industrial Classification (SIC) Code groups:

SIC 15 - Building Construction: General Contractors
and Operative Builders

SIC 16 - Construction other than Buildings: General Contractors

SIC 17 - Construction: Special Trade Contractors

Awards are available in these man-hour categories for each SIC group:

- Up to 100,000 man-hours worked annually
- 100,000 to 200,000 man-hours worked annually
- More than 200,000 man-hours worked annually

The Business Roundtable's Review Panel Evaluation Criteria

The constructor's safety attitudes and practices are evaluated by The Business Roundtable CISE review panel based on evidence of :

1. **Management commitment** and management accountability
2. A qualified staff, including budgeting support for safety activities and / or a designated responsible safety officer
3. Written and budgeted safety and health programs with established goals and well defined policy
4. Demonstrated use of proven safety practices:
 - Regular orientation of foreman and new workers
 - Regular, frequent "tool box" safety meetings
 - Periodic jobsite safety inspections
 - On-the-job discipline for unsafe work practices
 - Positive influence on subcontractors' safety attitudes and performance
 - Familiarity with the use of a permit system in hazardous areas
 - An established accident reporting system or program, requiring the immediate reporting of accidents, accident investigation and maintenance of accident statistics
5. **Safety attitudes** and practices confirmed by three client companies
6. **Proven results** by lowering accidents / incidents over time

CICE PRINCIPLES

1. The cost effectiveness of the construction process can be controlled and major savings achieved if top management gives it the same attention and direction applied to production, marketing and other mainstream functions.
2. The owner puts in the money. He has the economic incentive and the means to define the goals, set the standards and control the process.
3. It takes major changes across the board to improve cost effectiveness.
4. Modern management systems are as important in construction as in other business functions.
5. New technology will reduce costs, improve quality and expedite the construction process.
6. Construction cost effectiveness depends on people - their training, upgrading, supervision, motivation, involvement, commitment.. proper use of their skills..and the practices and conditions that control their performance on the job.
7. Projects are most successful when all elements - planning, design, field construction, start-up, operation and maintenance - are integrated from initial concept to completion.
8. Contracts should be written to fit the specific job, fairly and adequately recognizing the legitimate interests of all parties.
9. "Team-building" is a practical and productive way to maximize the contribution of the diverse interests, skills, resources and people involved in any project.
10. Local conditions affect a project's cost effectiveness and owners have a legitimate interest in them.
11. An effective safety program benefits employees; enhances motivation, morale and communications; and has a positive cost / benefit ratio.
12. Getting more construction for the money requires the creation and execution of a structured and practical action plan. CICE Recommendations, CII Studies and other sources provide a sound basis for developing one.

CICE REPORTS

The Findings and Recommendations of The Business Roundtable's Construction Industry Cost Effectiveness Project are included in the Reports listed below. Copies may be obtained at no cost by writing to The Business Roundtable, ATTN: CICE, 200 Park Avenue, New York, NY 10166.

Project Management - Study Area A

- A-1 Measuring Productivity in Construction
- A-2 Construction Labor Motivation
- A-3 Improving Construction Safety Performance
- A-4 First and Second Level Supervisory Training
- A-5 Management Education and Academic Relations
- A-6 Modern Management Systems
- A-7 Contractual Arrangements

Construction Technology - Study Area B

- B-1 Integrating Construction Resources and Technology into Engineering
- B-2 Technological Progress in the Construction Industry
- B-3 Construction Technology Needs and Priorities

Labor Effectiveness - Study Area C

- C-1 Exclusive Jurisdiction in Construction
- C-2 Scheduled Overtime Effect on Construction Projects
- C-3 Contractor Supervision in Unionized Construction
- C-4 Constraints Imposed by Collective Bargaining Agreements
- C-5 Local Labor Practices
- C-6 Absenteeism and Turnover
- C-7 The Impact of Local Union Politics

Labor Supply and Training - Study Area D

- D-1 Subjourneymen in Union Construction
- D-2 Government Limitations on Training Innovations
- D-3 Construction Training Through Vocational Education
- D-4 Training Problems in Open Shop Construction
- D-5 Labor Supply Information

Regulations and Codes - Study Area E

E-1 Administration and Enforcement of Building Codes and Regulations

Summary

More Construction For The Money

CICE: The Next Five Years and Beyond

Model Programs

Model for an Owner Safety Process - Air Products and Chemicals, Inc.

Model for an Owner Safety Process - Monsanto Chemical Company

Model for a Constructor Safety Process - Gulf States Inc.

Audiovisual presentations are also available. For information write The Business Roundtable, ATTN: AUDIOVISUALS.