

INTER ORGANIZATION CORRESPONDENCE

AMERICAN BRIDGE

UNITED STATES STEEL CORPORATION

TO R. D. Northcutt G. H. Moore DATE November 9, 1967
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Read
11-13-67

SUBJECT Management Guide for Contractors' Safety Responsibilities

We attach hereto one copy of the above corporation booklet which is to serve as a management guide concerning independent contractors that may be performing work in our plants.

Please contact your area law department or this office if you have any questions whatever concerning requirements set forth in this booklet.

J. L. Beckner

Enclosure

cc: Leon Beekman
B. A. Halliday
✓ Plant Safety Supervisors

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MANAGEMENT GUIDE

FOR

CONTRACTORS

SAFETY

RESPONSIBILITIES



UNITED STATES STEEL CORPORATION

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MANAGEMENT GUIDE
FOR
CONTRACTORS' SAFETY RESPONSIBILITIES
UNDER
CONSTRUCTION CONTRACT

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CENTRAL OPERATIONS - STEEL
UNITED STATES STEEL CORPORATION

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SECTION I - RESPONSIBILITY FOR SAFETY OF PERSONS AND PROPERTY

The following is Article 16 of the Construction Contract. It is the basis upon which the contractor's responsibility for safety is predicated.

"The safety of all persons employed by contractor and his subcontractors on owner's premises, or any other person who enters upon owner's premises for reasons relating to this contract, shall be the sole responsibility of contractor. Contractor shall maintain at all times good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Contractor shall confine his employees and all other persons who come onto owner's premises at contractor's request or for reasons relating to this contract and his equipment to that portion of owner's premises where the work under his contract is to be performed or to roads leading to and from such work sites and to any other area which owner may permit contractor to use.

"Contractor shall take all reasonable measures and precautions at all times to prevent injuries to or the death of any of his employees or any other person who enters upon owner's premises. Such measures and precautions shall include, but shall not be limited to, all safeguards and warnings necessary to protect workmen and others against any conditions on owner's premises which could be dangerous and to prevent accidents of any kind whenever work is being performed in proximity to any moving or operating machinery, equipment, or facilities, whether such machinery, equipment, or facilities are the property of or are being operated by, the contractor, his subcontractors, the owner, or other persons.

"It is understood that if employees of owner shall perform any acts for the purpose of discharging the responsibility undertaken by the contractor in this Article 16, whether requested to perform such acts by the contractor or not, such employees of the owner, while performing such acts, shall be considered the agents and servants of the contractor subject to the exclusive control of the contractor."

SECTION II - GOVERNING PRINCIPLES

The need to provide plant management with guideposts to direct their dealings with contractors is twofold:

1. To assure maximum safety for our own employees, contractors' employees, and third persons.
2. To assure maximum safety without placing the Corporation in a position where unwarranted liability under common law is assumed.

Casual reflection on these points would seem to place major emphasis on point 1 above. This is not the case; these points are not of equal importance. Major consideration must be given to point 2. Detailed analysis of these goals will make it apparent that the placing of primary emphasis on point 2 is entirely in keeping with our management belief that "safety is our first consideration". It is in keeping because any other concept would permit responsibility along one "chain of command" but would have accountability follow another. The Construction Contract makes it crystal clear that the contractor is responsible for the safety of all persons employed by him and his subcontractors or any other person entering our premises for reasons relating to the contract. The accountability for their safety is also his unless his responsibility is qualified by some act or failure to act on the part of Corporation management.

The "acts of management" which can qualify or perhaps negate this stated responsibility of the contractor generally fall under three main headings. These are:

1. Assuming a measure of responsibility for the safety of contractors.
2. Defining the position of the Construction Engineer as responsible for completion of contract
3. Giving working directions to contractors' employees.

Perhaps a clear distinction can be made under "assuming a measure of responsibility for the safety of contractors" by showing the contrast between an individual contractor inspecting a plant site prior to bidding and the same contractor reporting for work as the successful bidder after the contract has been awarded. At site inspection prior to bidding, the contractor is a business invitee presumed unfamiliar with the hazards involved and plant management assumes a measure of responsibility for the safety of business invitees and other persons lawfully on the premises when those business invitees and other persons enter the premises through the use of the special pass procedure. This assumption of responsibility includes, where appropriate, hard hats, eye protection, guides, etc., and is based on the lack of familiarity with steel operations of this type of person.

However, as the successful bidder, plant management assumes no responsibility for the safety of the persons of contractors' employees, his subcontractors, and their employees coming on the premises pursuant to a Construction Contract since this class of person is by the terms of the contract skilled in the work being performed and assumed to be familiar with steel operations. Further, by the specific terms of the contract, the contractor himself has assumed full responsibility for their safety. Contractors' employees enter the premises through the use of the contractor's badge procedure and their comings and goings are not brought to the attention of plant management on an individual basis.

It is imperative that this relationship and the distinctions it makes be understood by plant management. It is even more imperative that this relationship be carried to the point where the Corporation is fully protected or to a point beyond which we are willing to assume a calculated risk.

Experience has shown that the most severe injuries arise out of moving machinery (cranes, conveyors, hot cars, etc.), electricity, and toxic inflammable, and explosive gases. All such hazards should, of course, be pointed out to each contractor at the time of his visit to our premises in preparation for bid and each should be informed that the responsibility for providing for such hazards and pointing them out to his subcontractors rests with him not with United States Steel Corporation. It should also be pointed out to the contractor who is the successful bidder that his responsibility for adopting and enforcing safe procedures includes the responsibility of any subcontractor he might employ.

The responsibility for pointing out these types of hazards exists and rests with plant management even though the contractor has received a copy of "Contractors' Safety Responsibilities".

In some instances, a hazard of the types just mentioned is considered by a court to be so extreme that merely pointing out its existence to the contractor may not be held to be enough to relieve the Corporation of liability. For instance, if the Corporation retains control of the transformer room and continues it in operation even though the Corporation had notified the contractor that the panel boards would be energized throughout the performance of the work the contractor was hired to do, injuries growing out of the work could be laid at the door of the Corporation. In Ohio, a contractor was hired to do a specific job of work on an electric panel board; the contractor hired supposedly expert workmen to do the job. The contractor had been advised of the hazard. One of those workmen got himself burned on a panel board he knew was energized and the owner of the premises was held liable to the employee for not providing a safe place in which to work.

By extension, the same rule possibly could be applied to moving machinery, cranes, conveyors, trucks, and the like. In other words, where there is an active condition as distinct from a passive condition like a hole in the ground, calling the attention of the contractor to the hazard and the problem may not be enough to shift responsibility. It may not be enough even if we have scrupulously avoided having any of our own people assume responsibility by actively directing the progress of the work. It may be that in some situations the only answer if we are to avoid liability is to remove the hazard and do so before the accident. That may sound unreasonable but there was one instance where a painter was electrocuted by high voltage lines in the roof trusses. In the light of several "electrocution" decisions as well as a result of a little pre-trial persuasion by the judge, we knew we were faced with almost absolute liability so we settled with his widow for \$22,800. The day after the man was killed, the high voltage feeder lines were moved outside the building at a cost of \$485. This may or may not be typical of an average

pre-accident choice but it does typify the kind of pre-contract planning which could pay dividends.

Some misconceptions have developed relative to the position of the Construction Engineer. These must be clarified. The Construction Engineer is responsible for coordinating the contract, interpreting requirements, and serving as the point of contact for plant management with the contractor. The Construction Engineer is not responsible for the work performed by the contractor except as he polices the specifications and conditions of the contract. Internally, the relationships between other members of plant management and the Construction Engineer should be akin to and controlled by the requirements for dealing with a Department Superintendent. In "Contractors' Safety Responsibilities", reference is made in several instances to clearance with the Engineer. This does not mean that the Engineer has complete authority for independent and unilateral action, rather it vests in the Construction Engineer the responsibility to check and clear with the departments at interest such as Safety, Fire, Operating, etc., before granting the necessary authorization. This responsibility to confer is not intended to qualify or to establish joint or divided responsibility between the Construction Engineer and other departments in dealing with contractors. Sole responsibility is vested in the Construction Engineer.

It is of concern that we select our contractor with some consideration to his regard for a proper safety program. Past experiences can form a reliable guide in this manner but certainly, as Corporation management, we are remiss if we continually let contracts to individuals whose demonstrated regard for a proper safety program is inadequate. Much trouble can be eliminated at this point by simply advising the Purchasing Division not to extend an invitation to bid to these individuals. In extending invitations to be bid, the following must be considered:

First, it is of some importance how we select our contractor. He should be one who does have a general reputation for care and safety and one who does not have previous adverse safety performance records either with United States Steel Corporation or other companies and who we know, or believe, will adopt safe practices without our having "to fight" him. It is fair to say that we would not contract work which our own employees could do only because it was cheaper - if the only reason it was cheaper was that the contractor was more lax in his safety precautions than we would be. Not only would that represent a callous adoption of a double standard of safety morality but it might cost more money in the end anyway by the time we settled all of the claims asserted against us. So it is of concern that we select our contractor with some regard to his regard for a proper safety program.

Second, we must do what we can to see that the contractor does the safety job that is rightly his. In addition to pointing out the hazards at the time of view, safety and engineering personnel should observe the performance by the contractor periodically and give him all necessary advice and counsel relative to safe practices. In so doing, we are not taking over

his job, we are only helping him to do that job safely as he has undertaken to do by contract. This is the function which we can perform in limiting the Corporation's liability for injury or death during construction work on our premises. Not to do the safety work for the contractor but to help to see that he does it himself.

Finally, in planning for the anticipated work of a contractor, a proper inspection of the situs of the work is bound from time to time to show some hazards which can be easily removed, perhaps even more cheaply than the nuisance value of a lawsuit. If you would fix it before giving your own employees an assignment to work there, then do it for the contractor.

Giving working directions to contractors is the area where management is most likely to unintentionally assume liability. One of the major areas of ability to claimants "to tag" us for negligence arises from fact situations in which the claimant was in some measure justified in contending that even though the contractor had been warned about the existence of a condition, our own people could be drawn into the picture as having subsequently and specifically "okayed" the contractors' employees working under the dangerous circumstances which produced the accident. In other words, the effort to place the responsibility on the contractor by notifying him of the hazards was negated by one of our supervisors, in effect, taking the responsibility back again by giving some on-the-scenes off-the-cuff working instructions to an employee of the contractor which the court construed as practically an invitation to an accident. In an effort to avoid the recurrence of facts which would support a charge of negligence for this kind of situation in the future, the Construction Contract has included within it Article 16. Our practical success under it, however, will depend in large measure on our ability to avoid giving working directions to employees of contractors wherever possible.

Now, does this mean that our own safety people should no longer be concerned with whether or not the contractor has an adequate safety program? The answer is clearly and definitely "no". It is now even more imperative that the works personnel intensify their efforts to secure safe performance of the work by the contractor. Our actions should be directed toward having a proper safety program adopted by the contractor - not merely handing him our own department safety rules and telling him to follow them. We should not only urge the contractor to adopt our rules as his own as a minimum but also revise and supplement those rules when and where necessary in order to properly discharge his responsibility to prevent accidents.

Any failure on the part of the contractor to comply with United States Steel requirements as set forth in Part I Construction Safety Responsibility and any failure to enforce proper safety procedures can be considered every bit as much of a breach of the Construction Contract as though he were to sand the concrete or apply one coat of paint where two were called for in the specifications.

The "failure to act" on the part of management which can cause the Corporation to assume liability falls into two main categories. These are:

1. Failure to acquaint the contractor with known hazards.
2. Failure to insist upon the contractor adopting and enforcing a safety program.

The manual, "Contractors' Safety Responsibilities", has been prepared to minimize the possibility of liability stemming from failure of management to adequately inform the contractor but it cannot do the complete job. Plant management must supplement, as necessary, this manual in order to avoid liability from this source.

Failure of plant management to periodically inspect the work site and determine and insist upon the contractor enforcing the safety program he has adopted might be considered by a court to indicate management acceptance of the contractor's work standards. Periodic inspections are necessary, therefore, so that we are not backed into corners by our failure to act.

SECTION III - CONTRACTORS SAFETY RESPONSIBILITIES

This manual is prepared as a separate book in order to provide one more assurance it will reach the contractor's superintendent and not be used only by the estimator as could be the case if it were printed in its entirety as a part of the specifications. Therefore, a copy will be given to contractors inspecting the site prior to bidding and again to the successful bidder.

The manual, "Contractors' Safety Responsibilities", has to do with problems for the prevention of injury, not only to our own employees but also to employees of contractors or subcontractors performing work on Corporation premises. It is intended as a guide, outlining minimum precautions to be taken by the contractor. It is based on actual experience in the steel industry and is given to the contractor with the understanding that these practices are representative of minimum safety requirements only and in no way relieve the contractor of the responsibility for such additional requirements for the safe performance of work as may be necessary for the protection of Corporation personnel, contractors' personnel, or third persons. If clarification of any part of the manual is necessary, the contractor should consult with the Construction Engineer.

When an employee of a contractor or subcontractor is injured or killed, suits arising therefrom fall under common law or statutory liability for which there is no limitation fixed as in workmen's compensation statutes.

The Construction Contract has no indemnity clause. The contractor is subject to common law liability for his own negligence and since the Corporation had been unable to effectively avoid the consequences of claimed

negligence on our own part, the indemnity in past contracts was eliminated and replaced with Article 16 which provides:

1. The safety of all his employees or his subcontractor's employees is the contractor's sole responsibility.
2. The contractor is required to take every reasonable precaution to prevent injury or death.
3. When Corporation personnel advise or counsel the contractor relative to safety practices, in doing so, they become one of the contractor's agents and are not relieving the contractor of his primary obligation and responsibility for safe performance of work.

The safe performance of work by the contractor falls under three principal headings:

1. General requirements for the protection of Corporation personnel and property
2. Minimum requirements for the protection of contractors' employees and third persons while working on Corporation property.
3. Suggested safe practices for adoption by contractors to insure safety of contractors' employees and third persons.

With Article 16, it is now even more imperative that works personnel intensify their efforts to secure safe performance of work by the contractor. Our actions, however, should be directed toward having a proper safety program adopted by the contractor and periodic inspections to assure that he is policing the program and practice which he adopted. The "Contractors' Safety Responsibilities" manual has been prepared to help bridge this gap. Our success under it will depend, in a large measure, upon our ability to avoid giving working directions to employees of contractors. For instance, if plant management personnel notice that contractors' employees are not wearing hard hats, do not call to them and direct them to wear hard hats - report the instance to the Construction Engineer who will advise the contractor that he is not complying with his own safety requirements. Continued abuse could bring more drastic action with the "threat" of actual cancellation of the contract under the "breach of contract" provisions. Any substantial failure on the part of the contractor to adopt and enforce proper safety procedures can be considered a breach of contract. Of course, the right should be used judiciously and only should be exercised after due clearance and with the consent of Engineering, Operating, and Law.

SECTION IV - INVITATION TO BID

In order to be assured that the contractor is fully aware of his safety responsibilities, a statement will appear in the specification going out with the Purchasing Division's "invitation to bid", including Contractors' Safety Responsibility is part of the specification which, in turn, becomes part of contract.

For special hazard conditions not covered in this manual, these special regulations shall be included in the specification in addition to this manual.

It is the responsibility of the Engineering and Purchasing Divisions jointly and separately to see that this specification is part of the "invitation to bid".

SECTION V - INSPECTION OF THE SITE PRIOR TO BIDDING

Because of the specification which the contractor has received along with his "invitation to bid", he will expect to receive a copy of the "Contractors' Safety Responsibilities" manual at the time he inspects the plant site in preparation of his bid. Therefore, it shall be the responsibility of the Works Chief Engineer, at locations where work is to be performed by contractors, to maintain a stock of the "Contractors' Safety Responsibilities" manual in sufficient quantity to provide each contractor invited to bid on the job with a personal copy. These manuals are stocked in the Stores Department and have been assigned Form No. G-20457. They may be ordered by white requisition addressed to Mr. R. A. Winner. At the time the contractor reports to the plant site for inspection prior to bidding, the Construction Engineer assigned to the project will meet with him, give him his copy of the "Contractors' Safety Responsibilities" manual, discuss it with him, and answer such questions as the contractor may have relative to it. The responsibility for meeting with the contractor is vested in the Construction Engineer. However, the Construction Engineer may be assisted in this meeting by the General Supervisor of Safety or such other plant personnel as he deems advisable in accordance with practices established by the plant. Upon completion of the discussion, the contractor shall sign the following form, acknowledging receipt of the "Contractors' Safety Responsibilities" manual. This form, signed by all prospective contractors, shall be kept on file by the Construction Engineer.

FORM

I certify that I have received a copy of Contractors' Safety Responsibilities and that these have been explained to me and I agreed to comply with these requirements.

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It is necessary that Part I of the "Contractors' Safety Responsibilities" manual which relates to the protection of Corporation personnel and property be thoroughly discussed at this time. In addition, Part II shall be reviewed with the contractor understanding that his bid is his agreement to adopt and enforce as part of his safety program these requirements. It is important that the contractor have full knowledge of Parts I and II so that he can determine what effect, if any, these requirements will have on his bid. If these requirements are not explained prior to bidding, it is possible that the contractor, if awarded the contract and then learning of these safety requirements, may avoid the contract on the basis of his not being aware of or having a chance to consider these requirements in submitting his bid, or he may submit a bill for extras to cover the real or imaginary costs purported to be sustained by him in meeting these requirements.

SECTION VI - INSPECTION OF PLANT SITE BY SUCCESSFUL BIDDER PRIOR TO START OF WORK

Prior to start of work, the successful bidder will meet with the Construction Engineer, the General Supervisor of Safety, and such other plant personnel as the Construction Engineer may deem advisable. The purpose of this meeting is to again review in complete detail the safety requirements of Parts I and II and to determine if the contractor desires local assistance under Part III. At this time, the contractor will be expected to explain and define his safety program and the Construction Engineer will outline the means to be employed by the plant for inspection of work and for determining adequacy of the contractor's safety program.

SECTION VII - INSPECTION OF WORK IN PROGRESS

We must do what we can to see that the contractor does the safety job that is rightly his. In addition to pointing out the hazards at time of inspection of site, safety and engineering personnel must observe the performance by the contractor periodically and give him all necessary advice and counsel relative to safe practices. By doing so, we are not taking over his job; we are only helping him to do that job safely as he has undertaken to do it by the contract. This is the function to be performed by Corporation personnel in limiting the Corporation's liability of injury or death during construction work on our premises. We should not do the safety work for the contractor but should help him to see that he does it himself. Safety inspections should be made by safety personnel and reports made to the Construction Engineer who will take up with the contractor matters of unsafe practices or safety program violations. If these violations continue after they have been discussed with the contractor, work may be stopped under the breach of contract provision. Also, in the inspection of the site, we are likely to uncover, from time to time, hazards which can be easily removed. These should be reported to the Construction Engineer for handling.

SECTION VIII - RESPONSIBILITIES OF THE CONSTRUCTION ENGINEER

The Construction Engineer is responsible for the coordination of all work under a contract. He is responsible for interpreting requirements of the "Contractors' Safety Responsibilities" manual. However, it is not intended that the Construction Engineer should unilaterally make decisions and grant approval which would affect Operating or Safety Departments without adequate "before the fact" clearance with these departments. For instance, Item 4.5 on page 2 of "Contractors' Safety Responsibilities" has to do with the procedure for handling flammable liquids. It is expected that before the Engineer approves any such procedure, he will have discussed it with and obtained the recommendation of the plant fire department. Because of the importance of Item 1.5 on page 1 and 1.3 on page 7, Contractors' Safety Responsibilities, provision is specifically made for a prescribed "Certification of Instructions" which is to be signed by the contractor, the Engineer, an operating supervisor, and a representative of the Safety Department. This "Certification of Instructions" should be in the form of minutes of the meetings between plant representatives and the contractor and should cover all such meetings which relate to agreement on procedure and such items as: no smoking areas, electrical circuit de-energizing, entry on or above crane runways, isolation of gas and/or fuel, air, or steam lines, painting or working on coke benches, and similar items. Minutes shall be acknowledged by the contractor signing the following

I certify that I have received a copy of the minutes of
 (date) meeting and that those minutes correctly states those
matters which were discussed and agreed upon at that time.

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SECTION IX - SAFETY DEPARTMENT RESPONSIBILITY

The Safety Department shall conduct periodic inspections of the work site. They shall note and report unsafe practices or direct violations of the "Contractors' Safety Responsibilities" manual or the contractor's safety program to the Construction Engineer. If such violations continue, the plant Safety Department is vested with the responsibility to have the Construction Engineer stop work until adequate consideration has been given to these items by the contractor. This authority extends to breach of contract, if necessary. The plant safety department further shall provide counsel and guidance to the contractor as required by him and as requested by the Construction Engineer.

SECTION X - CONTRACTORS' SAFETY RESPONSIBILITIES MANUAL

The manual "Contractors' Safety Responsibilities" is included in its entirety in the pages immediately following.

SECTION XI - ACCEPTANCE OF EQUIPMENT AND FACILITIES

The plant safety department should be notified of any new equipment received or being installed in order that a safety inspection may be made to determine if it is safe to operate. New machinery should not be operated or new processes put into effect until passed on by the plant Safety Department, in collaboration with representatives of the Engineering, Maintenance, and Operating Departments.

CONTRACTORS'

SAFETY

RESPONSIBILITIES



UNITED STATES STEEL CORPORATION

NOVEMBER 1, 1958

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FOREWORD

Contractors performing work on United States Steel Corporation premises, either pursuant to a standard construction contract or to a purchase order with attached conditions, assume complete responsibility for the safe performance of such work. The contractor assumes that responsibility under the following clause:

THE SAFETY OF ALL PERSONS EMPLOYED BY SELLER AND HIS SUBCONTRACTORS ON PURCHASER'S PREMISES, OR ANY OTHER PERSON WHO ENTERS UPON PURCHASER'S PREMISES FOR REASONS RELATING TO THIS CONTRACT, SHALL BE THE SOLE RESPONSIBILITY OF SELLER. SELLER SHALL AT ALL TIMES MAINTAIN GOOD ORDER AMONG HIS EMPLOYEES AND SHALL NOT EMPLOY ON THE WORK ANY UNFIT PERSON OR ANYONE NOT SKILLED IN THE WORK ASSIGNED TO HIM. SELLER SHALL CONFINE HIS EMPLOYEES AND ALL OTHER PERSONS WHO COME ONTO PURCHASER'S PREMISES AT SELLER'S REQUEST OR FOR REASONS RELATING TO THIS CONTRACT AND HIS EQUIPMENT TO THAT PORTION OF PURCHASER'S PREMISES WHERE THE WORK UNDER THIS CONTRACT IS TO BE PERFORMED, OR TO ROADS LEADING TO AND FROM SUCH WORK SITES, AND TO ANY OTHER AREA WHICH PURCHASER MAY PERMIT SELLER TO USE.

SELLER SHALL TAKE ALL REASONABLE MEASURES AND PRECAUTIONS AT ALL TIMES TO PREVENT INJURIES TO OR THE DEATH OF ANY OF HIS EMPLOYEES OR ANY OTHER PERSON WHO ENTERS UPON PURCHASER'S PREMISES. SUCH MEASURES AND PRECAUTIONS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, ALL SAFEGUARDS AND WARNINGS NECESSARY TO PROTECT WORKMEN AND OTHERS AGAINST ANY CONDITIONS ON PURCHASER'S PREMISES WHICH COULD BE DANGEROUS AND TO PREVENT ACCIDENTS OF ANY KIND WHENEVER WORK IS BEING PERFORMED IN PROXIMITY TO ANY MOVING OR OPERATING MACHINERY, EQUIPMENT, OR FACILITIES, WHETHER SUCH MACHINERY, EQUIPMENT, OR FACILITIES ARE THE PROPERTY OF, OR ARE BEING OPERATED BY, THE SELLER, HIS SUBCONTRACTORS, THE PURCHASER, OR OTHER PERSONS.

This responsibility for the safe performance of the work extends both to United States Steel Corporation employees and property and to the employees of contractor, his subcontractors, and other persons coming on the premises in connection with the work. In the proper discharge of this responsibility, the contractor will meet with designated representatives of the Corporation to view the premises and become completely aware of existing conditions and hazards if any.

Prior to beginning work, the contractor will again meet and consult with designated representatives of the Corporation to discuss the discharge of his responsibilities under the contract.

Pittsburgh, Pennsylvania
November 1, 1953

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PART I

GENERAL REQUIREMENTS FOR THE PROTECTION OF CORPORATION PERSONNEL AND PROPERTY BY CONTRACTORS

Part I of Contractors' Safety Responsibilities outlines the precautions to be taken by the contractor for the protection of Corporation personnel and Corporation property. It is based on actual experience in the Steel Industry and is given to the contractor at the time he inspects the site prior to submitting his bid, with the understanding that these practices represent minimum safety requirements only and in no way relieve the contractor of the responsibility for such additional requirements for the safe performance of work as may be necessary for the protection of Corporation personnel and Corporation property. If clarification is necessary, the contractor should consult with the Construction Engineer of the plant where work is to be performed.

1.0 GENERAL

- 1.1 All safe practices on construction work outlined in the latest edition of the "Manual of Accident Prevention in Construction", as published by The Associated General Contractors of America, Inc., shall be followed. A copy of this manual shall be on the job site at all times and all contractors' personnel shall have a working knowledge of it.
- 1.2 Contractor shall recognize that work in the construction may be performed while the mill is in operation and that he is responsible to establish necessary safe practices to permit the performance of work under operating conditions without endangering Corporation personnel and property.
- 1.3 Where work of contractor must be integrated and coordinated with Corporation operations or with work of other contractor, such integration and coordination shall be undertaken only as authorized by the Engineer.
- 1.4 The term "Engineer" as used shall be the plant Chief Engineer or his authorized representative assigned to the contract.
- 1.5 Before entering any Operating Department to perform work, the contractor shall obtain permission from the Engineer after consultation between the Engineer, Operating Supervisor, and Safety Department. A prescribed form of Certification of Instructions to contractors shall be signed by each and a copy obtained by contractor before starting work in each department. Intermittent operations shall be cleared with Engineer before work is resumed.
- 1.6 Contractors shall comply with all safety codes, laws, or ordinances applicable to any public authority.

- 4.6 Motor fueling locations and procedure shall be approved by the Engineer and plant Fire Department.
- 4.7 Contractors' personnel shall become familiar with fire protection and gas alarm facilities, including "turning in" of alarms.
- 4.8 A minimum of 15 feet clearance around all fire hydrants shall be maintained with entrance to same.
 - 4.8.1 Contractors' employees shall not use fire hydrants for any other purpose unless approved by the Engineer.
- 4.9 Contractors' employees shall obey all fire control and no-smoking signs.
- 4.10 Contractors shall use only the type salamanders and locations approved by the Engineer.
 - 4.10.1 Contractors' employees shall extinguish all open fire heating units when unattended.
- 4.11 Disposal of paints and solvents within the plant shall be approved by the Engineer.

5.0 UTILITIES

- 5.1 Contractors' employees shall not make any connection to operating electrical, gas, steam, air, oxygen, acid, water, or process line unless authorized by a written procedure signed by the Engineer, Operating Supervisor, and contractor and then only when the Engineer has so cleared.
- 5.2 Contractors' employees shall not turn on or off any of the above lines. All operating valves or switches shall be operated by the responsible Operating Department unless authorized by a written procedure signed by the Engineer.
- 5.3 Contractors' employees shall not set in motion any mill machinery without the approval of the Engineer.
- 5.4 All valves or switches shall be locked out by both the contractor and the Operating Department or Engineer.
- 5.5 Contractors shall not make inaccessible any control valve or switch.
- 5.6 Contractors shall report any unusual conditions that may be found immediately to the Engineer and stop all work until approval to continue is granted.

- 4.6 Motor fueling locations and procedure shall be approved by the Engineer and plant Fire Department.
- 4.7 Contractors' personnel shall become familiar with fire protection and gas alarm facilities, including "turning in" of alarms.
- 4.8 A minimum of 15 feet clearance around all fire hydrants shall be maintained with entrance to same.
 - 4.8.1 Contractors' employees shall not use fire hydrants for any other purpose unless approved by the Engineer.
- 4.9 Contractors' employees shall obey all fire control and no-smoking signs.
- 4.10 Contractors shall use only the type salamanders and locations approved by the Engineer.
 - 4.10.1 Contractors' employees shall extinguish all open fire heating units when unattended.
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5.0 UTILITIES

- 5.1 Contractors' employees shall not make any connection to operating electrical, gas, steam, air, oxygen, acid, water, or process line unless authorized by a written procedure signed by the Engineer, Operating Supervisor, and contractor and then only when the Engineer has so cleared.
- 5.2 Contractors' employees shall not turn on or off any of the above lines. All operating valves or switches shall be operated by the responsible Operating Department unless authorized by a written procedure signed by the Engineer.
- 5.3 Contractors' employees shall not set in motion any mill machinery without the approval of the Engineer.
- 5.4 All valves or switches shall be locked out by both the contractor and the Operating Department or Engineer.
- 5.5 Contractors shall not make inaccessible any control valve or switch.
- 5.6 Contractors shall report any unusual conditions that may be found immediately to the Engineer and stop all work until approval to continue is granted.

5.7 PNEUMATIC AND HYDRAULIC EQUIPMENT AND LINES

- 5.7.1 Contractors' employees shall not use piped oxygen in place of compressed air.
- 5.7.2 Contractors' employees shall not break any hydraulic line under pressure.
- 5.7.3 Contractors' employees shall not burn or weld on existing hydraulic lines without approval of the Engineer.

5.8 UTILITIES - ELECTRICAL EQUIPMENT AND LINES

- 5.8.1 Power-driven mill machinery requiring shutdown shall be made inoperative jointly by the Engineer and the contractor.
- 5.8.2 Contractors' employees shall not operate or tamper with any existing power-driven mill machinery.

6.0 OVERHEAD WORK INCLUDING PAINTING AND SCAFFOLDS

6.1 OVERHEAD WORK

- 6.1.1 Contractors shall be responsible for barricading ground or floor when working above ground level to protect Corporation personnel. The protection shall be equal to that described in the A.G.C. Manual or in accordance with written plant procedures furnished to the contractor. Signs shall be placed warning of danger of falling objects. Watchmen shall be placed if required by Engineer.
- 6.1.2 Contractors' employees shall not leave tools and equipment when working overhead so that they may fall.
- 6.1.3 Contractors' employees shall not leave loose material overhead.
- 6.1.4 Contractors' employees shall not take glass bottles on roofs or elevated areas.

6.2 PAINTING

- 6.2.1 Painting by spray gun shall be done on approval of the Engineer. Spray painting signs should be posted and consideration be given to wind direction, location of roads, parking lots, etc.
- 6.2.2 Contractors shall not paint over or smear safety signs.

7.0 CRANES

- 7.1** Contractors' employees shall not operate any of the Corporation's electric overhead traveling cranes except as approved by the Engineer.
- 7.2** Contractors shall not carry crane lifts over the heads of Corporation employees.
- 7.3** Contractors shall not use defective chains or slings in making lifts.

8.0 EXPLOSIVES

- 8.1** Handling of explosives shall be in accordance with existing plant procedures furnished the contractor at time of bidding.
- 8.2** Contractors shall not use explosives without approval of the Engineer.
- 8.3** Contractors shall not drive explosive-driven studs into structural members until approved by the Engineer.
- 8.4** Use of powder-actuated tools shall conform to standards developed by the Engineer.

9.0 GAS

- 9.1** Contractors' employees shall not work in doubtful areas until tests for combustible gases, carbon monoxide, and other harmful gases have been made.
- 9.2** Tests shall be taken before contractors work in oxygen pits or oxygen-enriched atmospheres.
- 9.3** Purging of oxygen, acetylene, and gas lines shall be performed by the plant.
- 9.4** Contractors shall not use internal combustion engines inside buildings where personnel are at work unless adequate ventilation is provided.

10.0 SEWERS AND EXCAVATIONS

- 10.1** Contractors shall protect open manholes, catch basins, pits, and excavations with adequate barricades and red lights.
- 10.2** Contractors shall replace manhole covers promptly when work is suspended.

11.0 WELDING AND BURNING

- 11.1 Contractors' employees shall not burn holes in or weld to structural members unless approved by the Engineer.
- 11.2 Contractors' welders shall not weld without protecting Corporation employees from the arc's rays.
- 11.3 Contractors' employees shall ground all weldments so that individuals or equipment are not exposed to ground circuit.
- 11.4 Work areas where burning or welding is done shall be approved for fire protection. Adequate fire prevention equipment shall be on hand.
- 11.5 Oxygen and gas cylinders shall be returned promptly to storage area after use.
- 11.6 Oxygen and gas cylinders shall be kept away from heat, open fires, and hot metal.
- 11.7 Oxygen and gas cylinders shall be stored separately and at least 6'-0" from each other.
- 11.8 Contractors' employees shall not use oxygen or gas cylinders at ground level in horizontal position. Cylinders shall be used in vertical position and secured to prevent falling.
- 11.9 Contractors' employees shall not drop or roll oxygen or gas cylinders.
- 11.10 Caps shall be kept in position except when gauges are attached.
- 11.11 Cylinders shall not be moved from one location to another with gauges attached.
- 11.12 Cylinders shall be transported only when secured in a vertical position.

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PART II

MINIMUM REQUIREMENTS FOR THE PROTECTION OF CONTRACTORS' EMPLOYEES AND THIRD PERSONS WHILE WORKING ON CORPORATION PROPERTY

Part II of Contractors' Safety Responsibilities sets forth minimum requirements which the contractor must adopt and enforce for the protection of contractors' employees and third persons while working on Corporation property. These minima are based on actual experience in the Steel Industry and set forth only minimum safe practices for the protection of contractors' personnel and third persons coming on the premises. They are not intended in any way to be inclusive or to relieve the contractor of all or any part of his responsibility for the safe performance of work. If clarification is necessary, the contractor should consult with the Construction Engineer of the plant where work is to be performed.

1.0 GENERAL

- 1.1 Contractor shall recognize that work in the construction may be performed while the mill is in operation and that he is responsible to establish necessary safe practices to permit the performance of work under operating conditions without endangering contractors' personnel and property or third parties.
- 1.2 Contractor shall comply with all safety codes, laws, or ordinances applicable to any public authority.
- 1.3 Before entering any Operating Department to perform work, the contractor shall obtain permission from the Engineer after consultation between the Engineer, Operating Supervisor, and Safety Department. A prescribed form of Certification of Instructions to contractors shall be signed by each and a copy obtained by contractor before starting work in each department. Intermittent operations shall be cleared with Engineer before work is resumed.
- 1.4 Construction of all temporary buildings and trailers, including wiring and heating facilities, shall be approved by the Engineer.
- 1.5 Hard hats shall be worn by contractors' employees, and eye protection shall be worn in designated eye protection areas.

2.0 TRANSPORTATION

- 2.1 Contractors' employees shall not enter any building, pit, or tunnel unless work requires them to do so and then only after permission is obtained as outlined in 1.3. Contractors' employees shall not visit other departments or other sections of the same department;

when entering and leaving the plant, they shall use only assigned entrances and exits; within the plant they shall use only established walkways, roads, and crossovers in going to and from job site.

- 2.2 Contractors' employees shall not ride upon Corporation locomotives, cars, trains, elevators, or other moving equipment unless authorized by the Engineer.

3.0 PERSONAL CONDUCT

- 3.1 Contractors' employees shall keep off mill tables, conveyors, and equipment unless their work requires and then only after drives are locked out.

4.0 UTILITIES

- 4.1 Contractors' employees shall not work on any hot wire or line under pressure unless authorized by the Engineer.
- 4.2 Contractors shall maintain minimum clearances between men or equipment and high voltage to conform to applicable states codes and standard plant practice.
- 4.3 Contractors shall consult with Engineer before working on or around high voltage, electric wires, or power circuits.
- 4.4 Lock-out of electrical equipment shall be at the main disconnect switch controlling the circuit or machine.
- 4.5 Locks on main disconnects shall be removed only by the person who places the lock.
- 4.6 Contractors' employees shall not enter motor rooms or substations unless required and then only after clearance with the Engineer.
- 4.7 Contractors' employees shall not use electrical wires, cables, or collector rails as scaffold supports.
- 4.8 Contractors' employees shall not make any connection to utilities or plug or connect into any plant electric circuit until released by the Engineer.
- 4.9 Contractors' employee shall not ride upon any power-driven mill machinery.
- 4.10 Contractors' employees shall consider all electric lines hot until cleared by the Engineer.
- 4.11 All cranes, mobile equipment, jackhammers, concrete busters, etc., operating in areas where they may come in contact with live wires shall be grounded.

5.0 OVERHEAD WORK

- 5.1 Contractors' employees shall not go on roofs without approval of Engineer. It is the contractor's responsibility to check the bearing capacity of the roof in its present condition to support his equipment and personnel and provide necessary safe conditions.

6.0 CRANES

- 6.1 Contractors' employees shall not go onto any overhead crane runway of an operating facility for any purpose until authorized by the Engineer through written procedure.
- 6.2 Contractors' employees shall not go onto any overhead crane runway operated by the contractor and not released for mill operation unless safety precautions have been taken for their personal protection.
- 6.3 When it is necessary to work on crane, crane runway, or when contractors' employees might be endangered by the movements of cranes, the runway must be protected by bumpers and red lights. If cranes must continue to operate past the area, the contractor must place a watchman on each side of the area as well as a man in the cab of each operating crane.
- 6.4 Contractors' employees shall keep in the clear of all crane lifts.
- 6.5 Contractors' employees shall not pass or work under the boom of any crane or power shovel.
- 6.6 Contractors' employees shall not stand near chains or slings being pulled from under a load nor near a load being raised.
- 6.7 Contractors' employees shall not ride crane loads.

7.0 GAS

- 7.1 Contractors' employees shall not work in doubtful areas until tests for combustible gases, carbon monoxide, and other harmful gases have been made.
- 7.2 Fuel, steam, and air lines shall be blanked off before working in furnaces.

8.0 SEWERS AND EXCAVATIONS

- 8.1 Contractors shall take precautions to prevent cave-ins.
- 8.2 Contractors shall check all manholes or underground pits for gas before entering.

- 8.3 Contractors shall know hazards of gas and liquid level in sewers, take necessary precautions, and maintain gas checks.
- 8.4 Contractors shall make gas tests before working in valve pit, trenches, or other doubtful areas.
- 8.5 Contractors shall not excavate in vicinity of electrical duct lines, sewers, water lines, gas lines, or railroad tracks until approved by the Engineer.
- 8.6 All protruding nails, tie-rods, and wires shall be removed from foundations as soon as forms are stripped.
- 8.7 Nails from crates or foundation forms shall be bent over or removed.

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PART III

SUGGESTED SAFE PRACTICES FOR ADOPTION BY CONTRACTORS TO INSURE SAFETY OF CONTRACTORS' EMPLOYEES AND THIRD PERSONS

Part III of Contractors' Safety Responsibilities contains suggestions which the contractor may wish to incorporate in his safety program for the protection of his personnel and property and third persons coming on the premises in addition to those minima set forth in Part II. The plant Safety Department, when requested by the contractor, and acting under the provisions of the Construction Contract, will counsel the contractor in the elements of an effective program for the safe performance of work.

1. Establish a schedule of safety meetings conducted by contractor's foreman for discussing specific topics, such as safety rules, hazards of specific jobs, safe practices, etc.
2. Establish a plan for contractor's foreman to contact each employee under his supervision at least once per week on safety.
3. Establish a procedure for the prompt investigation of all injuries by contractor's management.
4. Establish a schedule for periodic inspection by contractor's management of "housekeeping" of job site.
5. Establish a plan for the periodic inspection of tools and equipment by contractor's management.
6. Develop basic safety rules for job, instruct employees, and enforce compliance.
7. Incorporate applicable items of Part I into Contractor's Safety Rules (item 6 above).
8. Establish standards for wearing eye protection.
9. Establish standards for using safety belts.
10. Establish standards for use of portable ladders, giving consideration to use of "safety feet", lashing ladders at top and bottom, or ladders not lashed being steadied by another employee.
11. Establish standards for scaffolding or staging to assure that it is securely lashed and provides adequate clearance to moving equipment.

12. Establish the practice that scaffolds more than 7'-0" from the ground will be provided with toe board and railings and conform to Section 18 of the A.G.C. "Manual of Accident Prevention in Construction".
13. Establish requirements for the wearing of foot protection.