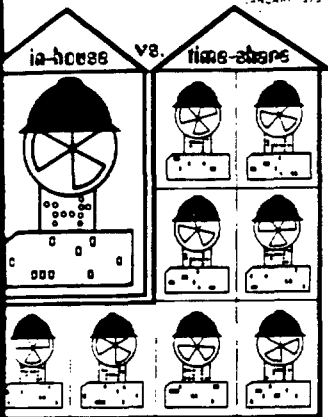


CONSTRUCTOR

The Management Magazine January 1973 volume LV no. 1

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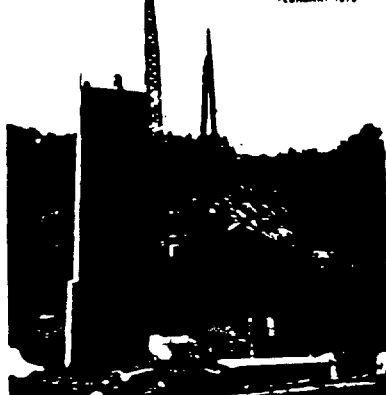
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Cover: This bridge on Interstate 89 in Sharon, Vermont is pictured during construction by Cianbro Corporation (AGC) of Pittsfield, Maine.

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Cover Photo: Power Plant cooling towers are a symbol of both our national energy crisis and the massive amount of new construction required to meet environmental standards. These particular towers (natural draft) were constructed by Philipp Holzmann Company's Dusseldorf branch in Nieder- aussem, Germany.

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Cover Photo: Nello L. Teer, Jr., AGC's 54th President (Story on pg. 18)

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Cover Photo: Lieutenant General F. J. Clarke, Chief of U.S. Army Corps of Engineers (Story on pg. 18)

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Constructor

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Cover Photo: Rear Admiral Walter M. Enger, CEC, USN, recently retired Commander, Naval Facilities Engineering Command



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CONSTRUCTOR

AUGUST 1973



Cover: Scenes from the 1919 coast-to-coast motor trip surround a photograph of then Lt. Dwight Eisenhower. (Photographs on cover and on pgs. 18-25 by U.S. Signal Corps, courtesy of National Archives.

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The Management Magazine September 1973 volume LV no. 9



Cover: Twin bridges carrying 191 North and South over Vermont Rte. 30 and the West River in the town of Brattleboro were designed by the Vermont Department of Highways. Built in 1960, general contractor was Lane Construction Corporation, AGC of Meriden, Conn.; erected by American Bridge Company.

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The Management Magazine October 1973 volume LV no. 10

CONSTRUCTOR

OCTOBER 1973



Cover: Symbolic of the over 5,600 AGC Building Contractors who lead the industry, this cover design was taken from one of a series of posters created for Zellerbach Paper Company by "Harry Murphy and Friends" a San Francisco design studio.

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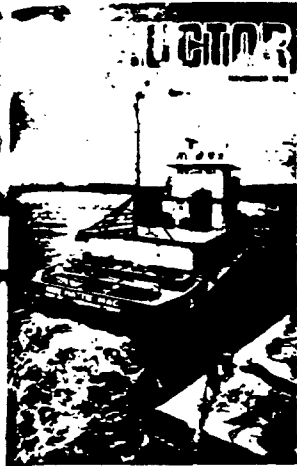
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The Management Magazine November 1973 volume LV no. 11



COVER: A boat of McAlister Construction Company's fleet leaves the river after a quick repair job while a tornado moves up the Mississippi River near Memphis. The tornado hit a few minutes later, completely closing off the river for half an hour. Photo by the Editor.

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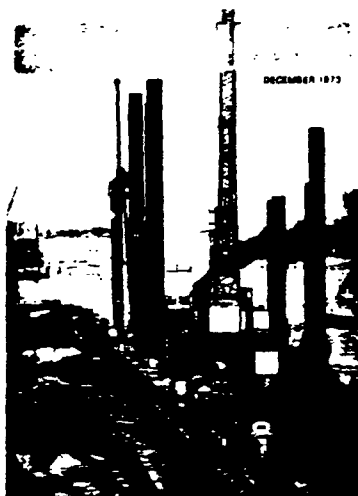
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Cover: This quay under construction in Bremerhaven, Germany, by the Philipp Holsmann Company through the use of steel piles driven from an offshore jack-up platform will receive a pre-manufactured deck of reinforced concrete units which also acts as a breakwater. (Photo courtesy Philipp Holsmann)

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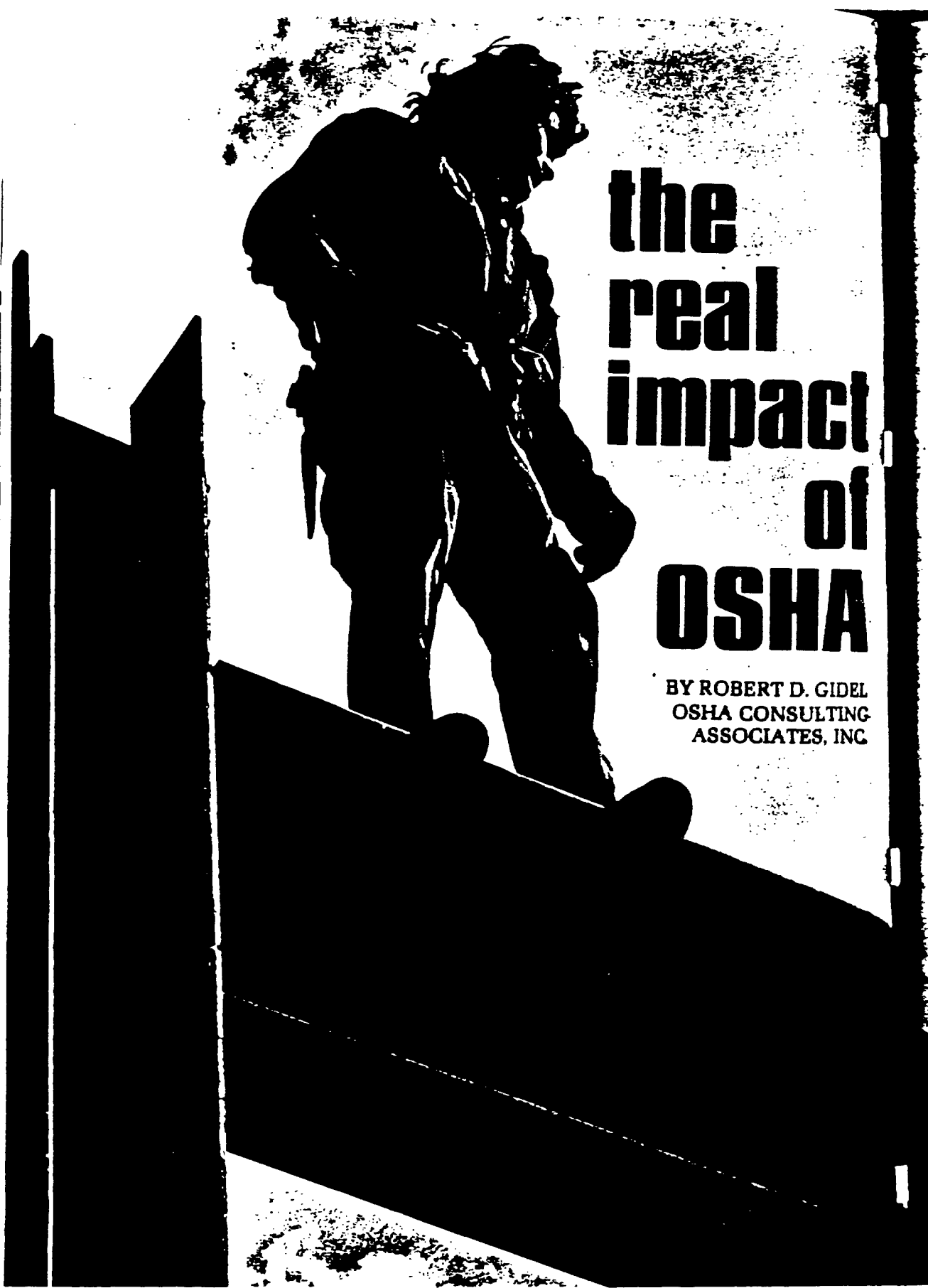
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the real impact of OSHA

BY ROBERT D. GIDEL
OSHA CONSULTING
ASSOCIATES, INC.

IF YOU HAVE so far ignored the implications of the passage of the Federal Construction Safety Act and the Occupational Safety and Health Act (OSHA), it is time for you to face the facts before you are faced with a \$50,000 legal action.

General contractors must understand their employer obligations under the new safety and health standards, the expanded range and limits of their potential liabilities in common law, tort, negligence, breach of express or implied warranty, fraud, and misrepresentation, and policies and procedures related to inspections, citations, penalties, and variances.

OSHA Adopts Federal Regulations

Although the Federal Construction Safety Act was originally meant to apply only to federal contract construction, OSHA has adopted these Federal Contract Regulations to apply to all construction work in both the federal and private sectors. Hence, a contractor may be cited for violation of standards under either Part 1910 (OSHA) or Part 1926 (Federal Construction Safety Act) of the Code of Federal Regulations, and is subject to the penalties of both. Penalties under the Federal Contract Regulations may amount to contract cancellation or blacklisting from additional federal contracts for as long as three years, if the seriousness of the violation warrants it.

However, the contractor is protected in one respect by the doctrine of "collateral estoppel" or double jeopardy. This assures that when an action by the government initiated under OSHA fails, a similar action cannot be brought against the contractor under the cloak of the Federal Contract Act.

State Jurisdictions

Contractors should also be aware of whether or not they fall under the jurisdiction of a state program. State plans are now under federal review in some 49 states or territorial entities. State standards are required to be "as effective as" but not necessarily "identical with" the federal program. A good rule of thumb is to worry about meeting the federal standards, unless the state program is more stringent, which is rarely the case.

Who is Responsible?

When the safety or health of an employee is impaired, who is liable? Under OSHA, the employer is responsible for all acts of employees unless, as stated in Section 17(k) of OSHA, "the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation." The relationship of the prime contractor to the subcontractor(s) in determining the responsible party is clearly spelled out in Subpart B of Section 1926.16(b) of the Safety and Health Regulations for Construction. It states that, "By contracting for full performance of a contract the prime contractor assumes all obligations prescribed as employer obligations under the standards contained in this part, whether or not he subcontracts any part of the work." However, the subcontractor is by no means devoid of responsibility. The bounds of his responsibility are defined in Section 1926.16(c): "To the extent that a subcontractor of any tier agrees to perform any part of the contract, he also assumes responsibility for complying with the standards in this part with respect to that part. Thus, the prime contractor assumes the entire responsibility under the contract and the subcontractor assumes responsibility with respect to his portion of the work. With respect to any subcontracted work

the prime contractor and any subcontractors shall be deemed to have joint responsibility."

Liability under OSHA

However, this recognition of a contractual relationship between parties is not applicable to the question of liability under OSHA. Under OSHA, the criteria are simply a) who had control over conditions and b) who was aware of conditions and in a position to correct them, but did nothing. The point is that neither a prime contractor nor a subcontractor can delegate away OSHA responsibility. However, it is perfectly permissible for him to put clauses in contracts indemnifying himself if actions or omissions of others cause him to suffer loss under OSHA. Such protective clauses should be incorporated into purchase, service, construction, lease and other contracts.

Obtaining Variances

Employers have the right to apply for variances from the standards when sound reason is demonstrated. Variances may be temporary, permanent, experimental, or related to National Defense. A temporary variance may be granted under the following conditions: (a) The contractor is unable to comply because of unavailability of professional or technical personnel or materials and equipment needed, or necessary construction or alteration cannot be completed, (b) He is taking all available steps to safeguard employees during the interim, (c) He has an effective program for coming into compliance as quickly as practicable and spells out the practices, means, methods, operations, and processes which will be adopted or used in the interim, and (d) He has certified that he has informed his employees of the application and an opportunity for a hearing.

A permanent variance may be granted if the employer demonstrates by a preponderance of evidence that the conditions, practices, means, methods, operations, or processes used or proposed to be



used will provide a place of employment which is as safe and healthful as if he had complied with the standard.

An *experimental variance* may be granted to permit the employer to participate in an experiment designed to demonstrate or prove new and improved techniques to safeguard the safety or health of workers. The *National Defense variance* allows exemptions and tolerances for a period up to six months without notice to employees when the serious impairment of national security is at stake.

How to Deal with Citations

Twenty-five percent or more of the citations being issued are not technically supportable, that is, they are misapplications of the standard by the inspector. In many cases, there are alternative ways to meet the performance requirements or intent of a standard but these have not been spelled out or approved yet by OSHA. In the case in which employers are cited for a technical violation but meet the performance intent of the standard, they should contest the citation and apply for a variance.

Upon receiving the certified mail notice of "proposed penalties" or "alleged violations", the employer has 15 working days in which to decide whether to contest such citations before the Occupational Safety and Health Review Commission. It is important to keep in mind that whatever is not contested, is admitted to.

In considering the fairness and validity of the "alleged violations", "proposed penalties", and/or abatement period, the following ques-

tions can be helpful:

1. Should a meeting with the OSHA Area Director be requested to further clarify the allegations and proposals?
 2. Have the standards or regulations been reasonably interpreted by the inspector?
 3. Do the regulations cited as violated really apply to the operation cited or were they really developed to apply to other, although similar, operations?
 4. Are there alternative ways of protecting the hazard which are better operationally and are as safe and healthful as the standard specifies?
 5. Does the citation for violation describe with particularity the nature of the violation, as is required by the law, including a clear reference to the provision of the Act, standards, rule, regulation or order alleged to have been violated?
 6. Does the citation fix a reasonable time for the abatement of the violation? Is it feasible?
 7. Is the designation of the violation as serious or non-serious a reasonable one? If serious, is there a "substantial probability" that death or serious physical harm could result?
 8. Is the "proposed penalty" appropriate with respect to the "size" of the business of the employer charged, the "gravity" of the violation, the "good faith" of the employer and the "history" of previous violations? The OSHA Act requires this.
 9. Is the citation for a condition which "the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation" (Section 17(k))
 10. Is there any question in your mind as to how to control the "alleged violation", by using the standard or regulation as it is spelled out?
- If the "alleged violations", "proposed penalties" and "abatement periods" do not lead to a reasonable answer to all the questions posed, they should be contested. Only in this way can contractors be assured of a fair, sophisticated administration of the safety and health standards.

Penalty Adjustments

To reduce proposed penalties,

the employer should get credit for "penalty adjustment factors" whenever he can. These include: (1) a 50% credit for all non-serious violations corrected within the abatement period, (2) up to 20% credit for demonstrated "good faith" efforts or programs showing an attempt to meet the purpose and intent of the law, (3) up to 20% credit for having a "past history" of compliance, cooperation, and voluntary safety program action, and (4) up to 10% credit for being a small business (less than 100 employees).

No credit is allowed for serious violations corrected within the abatement period. Also, all serious violations start with a \$1,000 penalty assessment subject to adjustment by good faith, past history, and size. Non-serious violations start with no penalty assessment, but arrive at one according to the extent of the violation, the severity of consequences, and the number of workers exposed.

Planning Ahead for the Inspection

Certain preparatory steps taken prior to an official inspection visit insure maximum ease and benefit and minimum loss or inconvenience. Try following these basic rules:

Establish a "good faith" posture by demonstrating awareness and by projecting a helpful—rather than hostile or defensive—attitude.

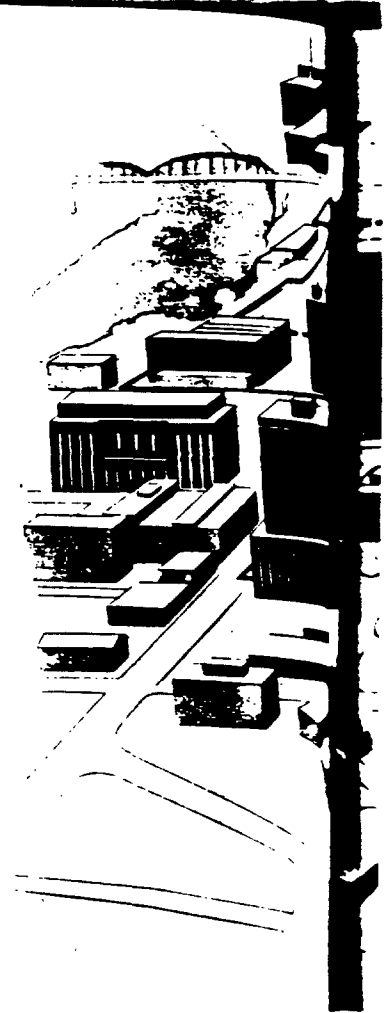
Wherever possible, indicate a past history of compliance.

Be sure all reporting and record forms are up-to-date.

Take notes on everything the inspector takes down; this provides your only record upon which to decide whether or not to contest an "alleged violation" or "proposed penalty".

Make sure all possible questions are cleared up before the inspector leaves the worksite. In particular, make sure that all possible violations are clarified, and reasonable abatement periods are agreed upon. Also, come to an agreement as to the seriousness of any alleged violation. This judgment should be based on (1) the number of workers exposed, (2) the extent and degree of violation, (3) the severity of injury which might occur, and (4) the probability of occurrence of the injury.

OLD TRASH OLD TRASH OLD TRASH OLD TRASH NASHVILLE'S NEW FUEL



THE BUILDING industry is about to make a contribution to cleaner air. A unique new thermal transfer plant presently under construction in Nashville, Tennessee, is designed to use solid waste (garbage, trash, etc.) as fuel for the production of both hot and chilled water.

The idea for the plant was conceived by Mayor Beverly Briley back in 1969 when city officials, in collaboration with I. C. Thomasson and Associates, were studying various means of providing heating and cooling for several downtown public office buildings. At the same time, the city was facing up to an impending crisis resulting from the rapid depletion of landfill areas used for the city's solid waste. It occurred to Mayor Briley to kill two birds with one stone, by building a plant which would utilize solid waste as fuel for the heating and cooling facilities.

Presently there are at least 18

plants operating across the country which use gas or electricity as an energy source in producing hot water or steam and, in some cases, chilled water. The principle of burning solid waste as a source of energy is itself well established. However, the Nashville plant is unique in that it burns solid waste to produce both hot and chilled water in one operation.

The project has not been without setbacks. The first and perhaps most serious was the necessity of trimming more than a million dollars from the lowest bid on the project to meet the Bonding Company's requirements. Following a series of consultations between the contractor, subcontractors, suppliers, and the I. C. Thomasson and Associates, based in Nashville, the necessary belt-tightening measures were introduced to trim the original \$9,536,000 low bid by Foster & Creighton, AGC, down to the required \$8,400,000.

In addition to surmounting these initial hurdles, the actual construction of the energy complex faced other challenges. One of the city's main sewer lines runs through the site and plans had to be altered to get around this problem. Core explorations showed that the subsurface was of two distinct types, with the incinerator resting on solid rock and the chilling plant on fill. The latter situation was remedied by sinking 80 piles of 10-inch steel weighing 43 pounds to the foot, and ranging in length from 30 to 35 feet. Minor difficulties involved clearing away an old existing dump and relocating the spur of a railroad. Mr. Wilbur F. Creighton Jr., (Chairman of the Board) of Foster & Creighton, far from being discouraged, commented that, "None of these problems were insurmountable—I guess you might say it's for the course." Besides, the project is slightly ahead of schedule