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How To Minimize the Environmental Liability of Construction Contractors

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Osborn

Legislation, Regulation and Case Law frequently place a heavy burden on today's owners and developers to preserve the environment and protect individuals from the adverse effects of hazardous substances. Regulations occurs at every level of government. Frequently there is concurrent exercise of state and federal legislation. Many statutory provisions impose strict liability on owners and developers, regardless of intent or scienter. As a consequence, owners and developers often seek to shift the risk of liability to contractors engaged in the construction process with which these risks are associated.

Contractors must be careful that, at the behest of the owner, they do not assume more environmental liability than they intend. This article calls attention to contract provisions that either deflect liability from the contractor or expose the contractor to unwarranted liability. This article will examine these provisions from the perspective of three different types of contractors:

- The traditional contractor hired to do new work that poses no environmental issues;
- The contractor involved in remodeling or rehabilitation of an existing structure; and
- The hazardous waste cleanup or asbestos abatement contractor.

This article will advise you on how to minimize contractor liability.

The Traditional Contractor Engaged in New Construction

When an entirely new facility is being built, the most prevalent environmental issues is whether subsurface conditions will cause problems. This issue usually arises upon the discovery of an underground storage tank or contaminated ground waste or soil. The effect of such a discovery on the contractor will be unanticipated delay and associated costs, as well as the expense of adequate removal of the discovered hazardous materials in compliance with applicable laws and regulations. As a practical matter, the traditional contractor is usually ill-equipped to abate hazardous substances.

Typical owner-contractor agreements contain broad clauses that appear to make the contractor wholly responsible for job completion., regardless of conditions encountered at the site. Restrict broad language that limits contractor responsibility for environmental concerns.

Clauses That May Expose the Contractor to Increased Liability

There are several ordinarily innocuous clauses that, in an environmentally troubled project, can subject contractors to substantial risk. The most troublesome clauses are those concerning compliance with:

- All laws and regulations;
- Time extensions;
- Delay damages;
- Changed conditions;
- Change orders; and
- Site inspection.

Clause Requiring Compliance with All Laws and Regulations

Contractors may wish to modify standard clauses that require them to comply with and give notices pursuant to all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of all public authorities having jurisdiction over the work. The “Compliance” clause could expressly limit a contractor’s obligation to comply with laws and regulations to those that specifically address the manner or method of the contractor’s work and that are in effect and are actively being enforced at the time the agreement is executed.

Modifications to the compliance clause should relieve the contractor of the burden of notifying appropriate agencies of environmental occurrences and obtaining specialized permits. Additionally, complying with a new regulation that may affect the scope, manner, or method of construction may require more stringent procedures.

Time Extension Clauses

Most construction contracts have clauses mandating specific commencement and completion dates. These clauses also contain language that permits a contractor to obtain an extension of time under specified circumstances. Modify a time extension clause to clearly entitle a contractor to an extension of time for delays associated with environmental concerns. The clause should explicitly provide for the discovery of hazardous substances and work stoppage associated therewith.

Suspension of Work Clauses

If hazardous waste is discovered, the mere right to an extension of time does not protect the contractor from the added costs that may result from a work stoppage. The contractor is also left unprotected from the additional expenses resulting from performing work out of sequence and modifying work procedures. Thus, the contract might include a clause requiring the owner to compensate the contractor for all costs incurred

owing to the discovery and abatement of hazardous substances, including the adverse effects on job progress. These costs should include:

- Demobilization and remobilization costs;
- Lost labor productivity costs; and
- Delay damages.

Note that the addition of such a “compensation” clause usually requires the modification of other clauses, including the following:

- A clause that permits the owner to suspend the contractor’s performance on the entire project or on an portion thereof;
- A clause that permits the owner to alter the proposed sequencing of the work;
- A no-damage-for-delay clause; and
- A clause that permits the owner to employ independent contractors and requires each contractor to coordinate its work with the work of the other independent contractors.

These modifications, when read collectively, serve to limit the owner’s ability to defeat the compensation clause by other contract language.

Changed Conditions and Differing Site Conditions Clauses

The changed conditions or differing site conditions clause, which is most applicable to underground construction, can also apply to conditions in existing buildings. Typically, an excavation contract indicates that if a previously undisclosed and unanticipated subsurface condition is encountered during construction, the contractor will perform any necessary related work and receive additional compensation for time and materials.

If a contractor enters into a contract for excavation work unaware of a hazardous waste problem and later one materializes, it may have to perform remediation under the standard changed conditions clause. If the contractor is not adequately licensed or otherwise prepared to perform the work, this obligation can be expensive and disruptive. Advise the contractor to give itself the option to treat the contract as terminated upon discovery of hazardous waste or to provide that the owner is directly responsible for abatement of the waste, associated expense, and impact cost.

Additionally, the question of whether an item of work qualifies as a changed condition may also be a problem. An owner may argue that the contractor should have become aware of the condition through its pre-bid site inspection and should have included the condition in its lump sum bid. The rationale being that all requirements for performance should have been included in the lump sum price, including the cost of any risk associate therewith. It is imprudent for a contract without an appropriate changed conditions clause.

Change Order Clauses

In an environmentally troubled construction project, a contractor may be asked to perform an extra or change order it is not qualified to perform. The contractor’s inability to perform may be on account of inexperience in handling hazardous materials, a lack of insurance for the operation, or because it does not have a required license. In those cases, a contractor should be allowed to refuse the change order without sacrificing the rest of the job. The decision on who should do the abatement work should be the

contractor's. If the contractor is experienced, willing, and able to perform the environmental remediation, it should be allowed to do so.

To protect both owners and contractors, the contract must include a clear delineation for processing and pricing change orders. The contract must include a clear definition of how change orders are to be calculated and what records the parties must keep to avoid later discrepancies and disputes. Further, the change order clause should describe when a contractor may refuse an environmental remediation change order without risking breach of contract and termination.

Site Inspection Clauses

Typical site investigation clauses state that the contractor has visited the site and is familiar with it and the conditions under which the work is to be performed. These clauses attempt to place the burden of undiscovered or concealed conditions on the contractor. The contractor may choose to avoid wording that specifically requires it to inspect subsurface and concealed areas and include language that specifically excludes any obligation to investigate, discover, or be responsible for hazardous materials. In this way the contractor may be able to argue that it did not have the duty to perform such inspections and is not responsible for those subsurface and concealed conditions that are materially different from those one would reasonably expect to encounter.

Clauses that Reduce Contractor Exposure to Liability

Just as there are clauses which subject contractors to inordinate risk, there are also clauses which appropriately distribute risk. Contractors must consider including these clauses even in the face of resistance by owners.

Disclaimers for Hazardous Substances

A contractor might want a clause specifically stating that the contractor takes no responsibility for toxic, hazardous, or other dangerous substances that may be found on the site, even though those substances are not known to be present. The clause might state that any of those substances and associated obligations are the responsibility of the owner.

Representations and Warranties

An owner should expressly state what it knows about the site and that the contractor is entitled to rely on what the owner knows. It is unwise for a contractor to place a bid without receiving a statement from the owner of what it knows about the project site. Of course, it would be ideal if the owner would broadly warrant and represent that no hazardous substances are present on the site, but it is doubtful that any owner would agree to such a provision.

Indemnification

Owners will resist indemnification of the contractor. The contractor has a convincing argument, however that an owner should not protest a clause requiring it to indemnify the contractor for all loss or expense incurred that relates to an environmental risk, that was not caused by the contractor, and that was not adequately disclosed in the construction documents.

Industry Standard Forms

Standard contract forms developed by both the American Institute of Architects (“AIA”) and the Engineers Joint Contracts Document Committee (“EJCDC”) include provisions that specifically address contractors’ environmental concerns. Article 10 of the AIA’s 1987 edition of the *General Conditions of the Contract for Construction* (AIA A201) includes a series of provisions that attempt to place responsibility for detecting and dealing with hazardous substances on owners:

Article 10

10.1.2 In the event the Contractor encounters on the site material reasonably believed to be asbestos or PCB [polychlorinated biphenyl] which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner and the Architect in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and the Architect if in fact the material is asbestos or PCB and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos or PCB, or when it has been rendered harmless, by written agreement of the Owner and Contractor, or in accordance with final determination by the Architect on which arbitration has not been demanded, or by arbitration under (this agreement).

10.1.3 The Contractor shall not be required pursuant to Article 7 to perform without consent any Work relating to asbestos or PCB.

10.1.4 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the contractor...from and against claims, damages, losses and expenses, including but not limited to attorney’s fees, arising out of or resulting from the performance of Work in the affected area...But only to the extent caused in whole or in part by negligent acts or omissions of the Owner...”

Article 10.1.2 requires the contractor to suspend work in any area where it is believed that asbestos or PCBs have been discovered. The clause also provides that work is not to resume until a written agreement is reached between the owner and contractor and the asbestos or PCBs have been removed or rendered harmless. Further, Article 10.1.3 provides that the owner cannot require the contractor to perform any work relating to asbestos or PCBs without its consent.

Other Toxic Substances

For contractors, one of the problems with Article 10 is the limited number of contaminants for which protection is provided. If the contractor unearths petroleum or discovers toxins previously dumped at the site. Article 10 does not adequately protect the contractor. The contractor should therefore attempt to substitute broader language for “asbestos or PCBs” such as “toxic substances,” or “other known carcinogens.”

Clause 10.1.4 provides that the contractor shall be indemnified for damage and losses arising out of or resulting from performance in affected areas, if in fact the material is asbestos or PCBs. Similar provisions appear in the AIA subcontract agreement (AIA A401).

The EJCDC Documents

The EJCDC *Standard General Conditions of the Construction Contract* 1910-8 (1990) goes further in protecting the contractor. The applicable provisions read as follows:

“4.5. Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material:

4.5.1 Owner shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto...

4.5.2 CONTRACTOR shall immediately: (i.) stop all Work in connection with such hazardous condition and in any area affected thereby...CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i.) specifying that such condition and any affected area has been rendered safe for the resumption of Work, or (ii.) specifying any special conditions under which Work may resume safely. If the OWNER and the CONTRACTOR cannot agree as to the entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefor as provided in Article 11 and 12.

4.5.3 To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR...against all claims, costs, losses and damages arising out of or resulting from such hazardous condition provided that: (i.) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property...(the claimants own negligence excludes indemnification).”

As with the AIA general conditions, the EJCDC provisions are designed to permit the contractor to stop work when hazardous materials have been discovered. Unlike the AIA language, the EJCDC provisions are broader, in that the contractor is protected upon discovery of asbestos, PCBs, petroleum, hazardous waste, and also radioactive materials. Additionally, the contractor may incorporate its own definition of hazardous waste into the agreement or use that which has been provided in various state and federal laws.

As under any contract, should environmental concerns unexpectedly arise, a separate agreement should be prepared to cover abatement of the hazardous materials.

Asbestos Abatement Contractor

The contract between the developer and the abatement contractor must clearly set forth the liability assumed by each party. National Insulation and Abatement Contractors' Association, *The NIAC Owner-Contractor Agreement Guide* (2d ed. October 1990). This guide provides an owner-contractor agreement that attempts to appropriately divide environmental risks. A developer legitimately expects the asbestos abatement contractor to assume at least some liability for the effectiveness of its work. On the other hand, the abatement contractor's liability will have some limits.

The remedial action contractor engaged in subsurface work faces formidable liability risks. Even though federal legislation provides certain indemnification protections; draft the remedial action contract with

caution. For more information see R.F. Cushman & B. W. Ficken, *Hazardous Waste Disposal and Underground Construction* (John Wiley & Sons, New York, 1987).

Scope of Work

All construction projects must have a well-defined scope of work. This rule is particularly true for asbestos abatement contracts. A good scope of work clause, together with well-defined plans and specifications, does two things:

- It locates, describes, and quantifies all asbestos-containing material (“ACM”) in the building or facility; and
- It identifies the response action required to be taken for each item of ACM so designated.

If the owner’s consultant has prepared a report that contains the necessary information, incorporate this report by reference into the contractor’s agreement and attach it as a rider. If the consultant’s report does not contain all the necessary information, for example, the appropriate response action for a particular ACM, incorporate the report into the agreement by reference and furnish the missing information elsewhere in the contract documents.

Under no circumstances should a contractor agree to remove “all” asbestos within a given structure. It should be the owner’s responsibility to discover the presence of asbestos and to determine the corresponding response action. If the owner is unwilling to provide information necessary to accurately price the work, the contractor should think very seriously about not taking the job.

It is a good idea to list those items of work that are specifically excluded from the contractor’s scope of work. This added language may prevent the owner from requiring the contractor to perform additional work at no extra cost.

Clauses that Require Compliance with All Laws and Regulations

Many construction contracts contain a clause requiring the contractor to follow all federal, state, and local laws, regulations, rules, and ordinances relating to the work of the contractor. For asbestos abatement contractors, this clause could mean disaster. The contractor should only agree to follow those laws and regulations that concern the manner or method of performance, that are in effect, and that are actively being enforced at the time the contract is executed.

Laws Governing Manner of Performance

Limiting requirements that provide that the contractor must follow those laws governing the manner or method of performance will prevent the owner from forcing the contractor to comply with regulatory requirements directed at the owner. For instance, if a local law requires that the owner notify the city department of environmental protection of the removal and disposal plan, the clause described above would prevent the owner from claiming that the notification requirement is the responsibility of the contractor, because that notification requirement does not affect the contractor’s manner or method of performance.

Laws in Effect at Contract Execution

In addition, it is important that the contractor only agree to follow those laws and regulations in effect at the time the contract is executed. Industry laws and regulations are in a constant state of flux. By specifying the body of law governing the contractor's performance, the contractor is in a better position to accurately price the work. Also, if applicable laws and regulations change, thus requiring the contractor to follow more stringent job procedures, the contractor should be entitled to additional compensation from the owner.

Specifications Consistent with Governing Law

Finally, the contractor must make sure that the specifications are consistent with the governing laws and regulations. Any discrepancies should be resolved before executing the contract. If the owner requests the contractor to follow higher standards than those required by law, clearly identify the different standards in the contract documents.

Start and Completion Times and Dates

Because many abatement projects are carried out under stringent time restrictions, the contract documents should state precisely the time within which the contractor must perform the work. Although this clause may appear to work against the contractor, in fact, it works to the contractor's advantage.

By defining the time within which the contractor must perform the work, the contract implicitly requires that the owner give the contractor access to the work area for the defined period of time. If the owner fails to make the building available to the contractor as scheduled, the owner has breached the agreement and the contractor should be able to recover damages occasioned by the breach.

Liquidated Damage Clauses

Start and completion times and dates will also assist the contractor in determining its potential liability under a liquidated damage clause. A typical liquidated damage clause provides that if the contractor is not finished with the work by a certain day, a stated sum will be assessed for each day past the scheduled completion date on which the work remains incomplete. The contractor must be certain that it can finish the work within the time period set forth in the contract. If not, the bid price should be increased to account for the possible assessment of liquidated damages.

Suspension and No-Damage-for-Delay Clauses

Any benefit that a contractor may receive from a clause defining the time period within which the work is to be performed can be nullified by other contract language. Two clauses in particular can lead to considerable expense for the contractor:

A clause which allows the owner to suspend the contractor's performance; and

A clause that prevents the contractor from recovering damages for delays in performance that are caused by the owner or the owner's consultants.

If the contract provides that the owner can suspend the contractor's performance or contains a no damage-for-delay clause, the owner can reschedule the work with impunity. If the work is suspended or delayed several times by the owner, the contractor might incur substantial remobilization cost.

Access to the Work Clauses

Although defining access to the work area in terms of time is important, by itself, it is not sufficient to ensure that the contractor will be free from obstacles during performance. The contract must also address such matters as who is responsible for moving furniture and office machines, disconnecting and reconnecting power systems, communication systems, and computer systems, and providing temporary electricity and water.

In addition, if the contractor requires the use of a freight elevator to perform the work, the owner should guarantee that the contractor will have uninterrupted use of an elevator. If local union rules demand that the elevator be run by a union operator, the contract should spell out who is responsible for hiring the operators and who is to pay for their services.

If the contractor will require space outside the building or facility for placing a dumpster or loading and unloading equipment and supplies, the contract should state that the owner will provide such a designated location.

Permits, Notifications, and Record Keeping

Each abatement project is governed by a labyrinth of federal, state, and local permitting, notification, signage, record keeping, and reporting requirements. Many regulations identify the party who is responsible for complying with a particular requirement. However, when a law or regulation does not assign responsibility for compliance to one particular party, or when the parties wish to alter the statutorily assigned responsibilities, take care that the contract document accurately reflects the agreement reached between the owner and the contractor. The contractor's agreement should specifically address all requirements and clearly set forth who is responsible for each one.

Indemnification Clauses

The indemnification clause can be a major stumbling block in owner-contractor negotiations. A provision requiring the contractor to indemnify the owner against any loss, damage, or expense relating to the contractor's performance, whether or not caused in whole or in part by the owner, is not uncommon.

Some states have passed legislation that prevents an owner from being indemnified for losses caused by the owner's sole negligence. When the loss is caused by the acts or omissions of both the owner and the contractor, however, some states allow the owner to obtain indemnification from the contractor for the full amount of the damage.

Each contractor must determine how much risk it is willing to take. The contractor must determine how much risk it is willing to take. The contractor must also factor into its decision the inability to control the owner's actions. The contractor's ability to minimize its risk decreases proportionately with the inability to control the activities or circumstances that may cause loss. Ideally, the contractor should only be required to indemnify the owner from loss, damage, or expense directly caused by the contractor's breach of contract or negligence.

Clauses Governing Time. Limits for Consultant Response

Because of the time restrictions generally associated with the performance of many abatement projects, it is essential for contractors to receive a prompt response from the owner's consultant. The contract should specifically require the owner's consultant to render a decision within a given time.

As industry groups, asbestos and other abatement contractors would be well advised to convince owners and their consultants that the various risks associated with an abatement project should be apportioned among the parties according to the principle that a particular risk should be assumed by the party in the best position to identify, quantify, and control the risk.

Remodeling and Rehabilitation Work

The contractor who renovates an existing structure faces an array of risks beyond those ordinarily encountered during the construction of a new building. Among the most common of these risks are:

- PCBs;
- Lead paint;
- Chemicals still present from past use of the property; and
- Underground or aboveground storage tanks.

Often, it is either known, or known to be a possibility, that some abatement procedure will be required to complete the project. So the contractor should be sure that the contract documents outline the hazardous substance abatement requirements and that the parties understand the associated risks. More so than the contractor engaged in new construction, the renovation contractor should not assume risk inadvertently. The likelihood that environmental problems may arise during renovation of an existing building is far greater than during the course of new construction.

Contract Interpretation that Leads to Liability

Several typical clauses appear in general renovation contracts. The owner may contend that when read together, these clauses require an unsuspecting contractor to abate an unknown hazardous substance.

For example, assume that a general contractor agreed to renovate an entire structure. After the start of construction it was determined that there was a considerable amount of asbestos in the building. The agreement between the owner and the contractor contained the following clauses:

“Site investigation.” The contractor represents that it has had an opportunity to examine and has examined carefully the plans and specifications and the contract and has acquainted itself with...all other conditions at the site of the project and its surroundings;

and that it has made all investigations essential to a full understanding of the difficulties which may be encountered in the performance of the terms of this agreement. The contractor will, regardless of any such conditions relevant to the project, the site of the project, or its surroundings, complete the project for the compensation stated herein and assume full and complete responsibility for completion of the project under any such conditions which may exist at the site of the project or its surroundings and all risks in connection therewith. In addition thereto, the contractor represents that that it is qualified fully and able to complete the project in accordance with the terms of the contract and within the specified time.

“All Incidental and Necessary Work.” The construction documents are to be treated by contractor as “scope” documents which indicate the general scope of the project in terms of the architectural design concept, the overall dimensions, the type of structural, mechanical, electrical, utility, and other systems, and an outline of major architectural elements. As “scope” documents, the construction documents do not necessarily indicate or describe all items required for the full performance and proper completion of the work. This agreement is let with the understanding that contractor is to furnish for the contract sum all items required for proper completion of the work.

“Compliance.” The contractor shall comply with and give notices required by all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of all public authorities having jurisdiction over the work.

Reading these clauses together, the owner might successfully argue that the contractor is responsible for removing or stabilizing the asbestos containing material.

If it were determined that the contractor is not responsible for the actual abatement work, it is likely that the entire job, or at least a portion of it, would be suspended until the asbestos is stabilized or removed. If the contract is not cost-reimbursable and includes a clause giving the owner the right to suspend the contractor’s performance, a no-damage-for-delay clause, or a clause that permits the owner to hire independent contractors and required the contractor to coordinate its work with the independent contractors at no increase in price, the contractor could be required to expend unrecoverable and substantial sums for remobilization and increased labor or material costs.

Time Extension Clauses

A contract that includes a time extension clause may still subject the contractor to additional expense, should environmental problems develop on the project. Even if the owner allows the contractor additional time to complete its work, the contractor is not protected from cost associated with delay. The advantage of

including an extension of time clause that explicitly addresses environmental issues lies in the protection a contractor enjoys from liability for any expense incurred by the owner. What remains problematic for the contractor are its own expenses, such as additional overhead, increased labor costs, and remobilization costs.

Contract Clauses that Minimize Liability

The inclusion of certain clauses can reduce the risk assumed by the renovation contractor. Like those which increase risk, these are similar to those which affect the traditional contractor engaged in new construction. Since the likelihood of an environmental occurrence is significantly greater when the contractor is engaged in the renovation of an existing structure, it is especially important that you consider using those clauses.

Differing Site Conditions Clauses

A differing site conditions clause may be sufficient to relieve the contractor of the responsibility for dealing with a hazardous substance or for absorbing the resulting expenses. But as a general rule, the contractor may not rely on these provisions unless they specifically address environmental risks. An owner will argue that a changed conditions clause applies only to traditional changed conditions, such as standard geotechnical problems, not hazardous wastes. On the other hand, a contractor will argue that an environmental risk is a changed condition. You can avoid these arguments by specifying in the clause that it is, or is not, intended to include the discovery of hazardous materials.

Suspension of Work Clauses

To deal with the costs likely to result from a delayed completion date, the contractor should include language explicitly providing that the contractor shall be reimbursed for any additional cost owing to the discovery of hazardous substances and resulting delay.

Disclaimers for Hazardous Substances

The inclusion of a clause disclaiming responsibility for the discovery of hazardous substances extends the protection afforded by a suspension of work clause. When a suspension of work clause protects the contractor from cost directly associated with delay and a modified change order clause allows compensation for abatement work not contemplated in the scope of the original agreement, a disclaimer for hazardous substances will relieve the contractor from any affirmative obligations arising from the environmental occurrence.

Indemnification

An indemnification agreement that protects the contractor from claims over an environmental occurrence is particularly important to the contractor performing renovation work. Owing to the increased likelihood that hazardous substances may be discovered, it is also more likely that accidental contamination will result from that discovery. This is particularly so when the contractor is inexperienced in dealing with hazardous substances. For the contractor, the cost of insuring against the occurrence is a convincing argument to the owner for inclusion of that clause in the contract documents.

Representations and Warranties

In combination with a proper indemnification clause, a clause providing that the owner has fully disclosed all that it knows about the site will allow the contractor to submit a lower bid. Even though an owner may resist the inclusion of that clause, lower construction costs may serve as an inducement for the inclusion of a warranty provision.

Conclusion

Under present day circumstances, a construction contract that does not specifically contemplate environmental concerns provides little protection to the contractor. In addition, a contract may initially appear advantageous to an owner because risks related to environmental concerns are assumed by the contractor. To discourage an owner from insisting on such a contract, the contractor should emphasize that the assumption of uncontrolled risk will mean higher building costs.

The contractor must deal with the possibility of environmental problems before the execution of the contract. The analysis should include an accurate assessment of what types of problems may crop up and the contractor's ability to deal with those problems. The contractor should look at the type of project to be undertaken, the location of the site, the previous use of the site or building, and the age of the building should one exist. The analysis will thus identify the types of risks that may be encountered. Once the analysis is complete, you can draft the contract with those specific problems in mind.

All contractors, whether the traditional builder hired to do new work, the abatement contractor hired to remove or stabilize hazardous substances, or the renovator who is likely to encounter hazardous materials during performance, need to be sure that their bid includes an appropriate adjustment consistent with the assumption of risk imposed by their respective contracts.

The clauses this article has discussed allow the contractor to accurately price its work and control the extent of environmental risk assumed by entering into an agreement with an owner.