

Large Audit Projects and International Audits

Terminology changes, but your audit scope remains unchanged

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You may one day be faced with auditing a much larger project than you are accustomed to auditing or perhaps an international project. With that in mind, it may be interesting to delve lightly into the differences between larger projects (\$1 billion or more), and how the U.S. construction industry differs from other countries.

Auditing large projects

One of the first differences on a large-scale project is the methodology used to manage it. You have probably heard the term “program manager.” A program manager is responsible for all construction disciplines. These include the budget, schedule, design, construction estimate, management of the project (or often multiple projects) and the administration of the contracting.

The program manager also handles the preconstruction, construction and closeout processes. The program manager employs a project manager and a construction manager who report to the firm. There are hybrids where owners retain some degree of control throughout execution of the project. Program managers are common in both the U.S. and overseas. Let’s look at how program management works.

Program management plan

In a program management approach, expect to see a few added controls not prevalent in smaller projects. A program management plan (PMP) outlines in narrative detail all of the components of the project. In many respects, the document is comparable to a construction policy and procedures manual. It is important to become familiar with the PMP because it will be the basis for the contract compliance portion of your audit.

Risk register

Expect to encounter a risk register (RR), which is a list of all the potential risks or hazards the project may encounter. The process of identifying risks includes the owner, program manager, contractor, engineer and others. They brainstorm what potential problems may occur, their risk significance and how the risk may be mitigated.

For instance, physical risks might be the possibility of an earthquake, flood, tornado or hurricane. There can be several hundred potential risks identified on a large project. Each of these risks is analyzed and procedures are developed that will mitigate the risk if it comes to fruition. For instance, if the area is prone to hurricanes, you can expect a Hurricane Preparedness Program to be ready for use should a hurricane occur.

Work breakdown structure

Expect to encounter a work breakdown structure (WBS) as part of the program. The WBS breaks each area or trade into labor components, and details the labor hours and other work-related resources that will be needed. It is similar to a cost accounting system, but it is solely for analyzing and controlling labor costs.

Engineer–procure–construct

Expect to see a contracting delivery method for really large projects (particularly civil projects) to fall under the auspices of what is called the engineer–procure–construct (EPC) method. For an EPC project, the contractor is typically an engineering firm. That firm is responsible for engineering and designing the project, procuring a contractor and constructing the project.

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Regardless of the size, all projects are subject to the same audit procedures that have been discussed over the years in these columns.

Audits of international projects

One of the first differences you encounter when auditing an international project may be the construction agreement. In the U.S., several construction and design organizations provide standardized construction and design agreements. These agreements are available to members or can be purchased directly from the design organization.

The most common of these in the U.S. are the American Institute of Architects (AIA) documents that are widely used in the healthcare industry and are probably used by your organization.

In Switzerland, an organization provides standard agreements and forms that are used on projects worldwide. The organization is the International Federation of Consulting Engineers (Fédération Internationale Des Ingénieurs – Conseils, or FIDIC). FIDIC provides contracts and construction documents that are used across the globe, including Canada. FIDIC contract documents are sometimes used in the U.S., but are more frequently used in other countries. While many of the construction terms found in FIDIC are similar to those in U.S. documents, there are a few differences.

Payment applications vs. interim payments

In the U.S., the monthly invoice submitted by a contractor is called the payment application. The FIDIC frequently calls it an interim payment certificate. (a few U.S. contractors also refer to their payment applications as interim payment certificates).

Change orders vs. claims

In the U.S., a change order is the method to modify the design or construction of a project. It can be an addition to or deduction from the project. An FIDIC change order is referred to as a claim. It is the way a contractor requests that their contract sum be modified to cover additional work. The term “claim” in the U.S. means there could be a lawsuit on the horizon, and therefore the term is used judiciously.

Alternates vs. provisional sums

In the U.S., an optional aspect of construction or design that is included in the original scope of work is called an alternate. As part of the concept, each alternate has a predetermined price tag before the project begins. As the project progresses, the owner must decide whether they want to accept or reject the alternate.

For instance, when a project begins, an owner may be uncertain if they want a fountain at a cost of \$100,000 in front of their building. So they ask the contractor to include the fountain in the construction price. At some point as the project progresses, the contractor asks the owner if they want the fountain built. If the owner rejects construction of the fountain, the contractor deletes the work from the scope and credits the owner for \$100,000. The FIDIC call alternates “provisional sums.”

Other differences

Another difference with international projects is in the design or construction customs of a particular country. In some European countries, when an architect specifies that the product of a certain manufacturer be used on a project (such as ornate steel doors), the manufacturer gives a percentage of the sale to the architect.

While this may be considered a bribe or kickback in our country, it is the way some international architects assure the products used during construction meet certain artistic, aesthetic or durability standards. Having such an endorsement, in turn, allows the manufacturer to “brag” that certain architects specify their product, which tells the construction world that they produce a high quality product.

Another difference you may see appears in the payment methodology. In the U.S., the owner pays the contractor each month, and the contractor in turn pays the subcontractors. However, in India, the owner makes payments directly to the contractor and individually to the subcontractors. Indian contractors have not always

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