

Material Storage and Control Procedure

General

The size and arrangement of the storage facilities, laydown areas, and tool rooms are determined by the Project Manager and Project Superintendent, with input from the Warehouse Supervisor. The Warehouse Supervisor is responsible for the supervision of both inside and outside storage areas, and for control of material under Warehouse authority. Access to warehouse and storage areas is extended to authorized personnel only.

Outside Laydown Areas

Outside laydown, areas are used for items not requiring inside storage. These areas are fenced and graded to provide adequate drainage. Stored material and equipment are placed on shipping pallets, railroad ties, or other adequate dunnage, as necessary. Lighting and additional security measures are provided as required. Large laydown yards are sectioned off using a grid system. Material and equipment are stored logically, such as materials of similar nature (a pipe, steel, wire, etc.) or by physical areas of the facility for items such as process equipment.

Covered Storage Areas

Covered storage is used for the storage of items that require protection from the elements or items that, by their physical size or value, are stored in a secure area. Within the covered storage areas, pallets, racks, bin, and floor storage is used, maximizing the use of available space.

Hold Areas

“Hold Areas” are established for the storage of items that are on hold for the reason of receiving/shipment discrepancies. These items are appropriately tagged and are not moved out until the discrepancy is resolved.

Storage Requirements

The Warehouse Supervisor ensures material and equipment are stored to meet the following requirements:

- Damage to stored material or equipment is reported to the Warehouse Supervisor.
- Flammable materials (chemicals, paints, solvents, etc.) are stored separately from other materials.
- Gasoline pumps are locked. Dispensing is made by authorized personnel. Receipts are obtained when gas is pumped. Other items, subject to pilfering, are protected similarly.
- Material packaging is plainly marked precluding the reopening of the packaging
- Materials and equipment are stored per vendor requirements.
- Original shipping containers are used to protect items while in storage.
- Outside storage, coverings are placed to allow maximum air circulation and drainage.
- Provide access to equipment where preventive maintenance is required.
- Provide ready access to items and minimize the necessity for excessive handling.
- Stored items are arranged, so racks, dunnage, or crates are bearing full weight without distortion.

Material Storage and Control Procedure

- Warehouse operations comply with good warehousing practices and all safety policies and procedures, both contractors and OSHA's.

Procurement Case Study

Overview / Background

CONTRACTOR is designing and building a major renovation of an existing Power Plant for Whole Lots of Power Corporation. (WLPC). The project is a lump sum. The project scope involves working in an operating facility while it remains in production. The schedule requires the project to complete within 36 weeks. If the project schedule is maintained, CONTRACTOR earns an incentive fee. However, if CONTRACTOR falters on the schedule, there is \$35,000 per day-liquidated damages, capped at \$2 million.

Like most renovation projects, there are congested work areas, low clearance, operating chemical systems, and other existing utilities that make timely installation and safety issues very important to the success of the project. It is a project requirement to have no impacts on the power supply to the grid. As such, all demolition must be verified before implementation, and the safety protocols followed without exception. The Mechanical installation is 35 percent of a very aggressive project budget.

The design phase has progressed and sent a set of bid documents to Bob Buyer, the purchasing lead. Consistent with the project procurement plan, the mechanical RFP package scope was as follows:

The subcontractor is to furnish and install, on a **Lump Sum** basis, all "Mechanical (North Phase 1800)", work complete in strict accordance with the Contract Documents issued as a part of Request for Proposals "C700000, Mechanical (North Phase 40)", dated 1/10/08, and Addendum number one dated 1/24/08, as prepared by CONTRACTOR, including Drawings, Technical Specification and Sketches issued.

Due to the aggressive schedule, Bob Buyer was pressed by WLPC and the CONTRACTOR Project Manager to obtain bids as soon as possible.

Bidding

Bob Buyer assembled the bid packages and sent the bids to three bidders. Each of these bidders bid a similar project 14 months ago at the same site.

To expedite the procurement, Bob decided that the pre-bid conference would take place via teleconference. A direct result of this decision was that no walkthrough the existing facility work area was required. The construction documents were available for pick up one day before the meeting.

The bidders picked up the bid documents. Two of the bidders took the time to walk through the project site. The third bidder, who had recently worked in the facility, decided that they were familiar with the project site and only participated via telephone.

Bids came in as scheduled. The bid summary was:

1. ABC Mechanical - \$8.5 million
2. J&J Mechanical - \$8.6 million
3. Mechanical Inc. - \$8.0 million

The Project Budget was \$7.9 Million

Procurement Case Study

Evaluation & Award

During the bid review, the team focused solely on Mechanical Inc.'s bid since they were the low bidder. Mechanical Inc. confirmed their price included all scope items and that their schedule complied with the project requirements. Bob Buyer and the Project Manager met and decided to award the subcontract to Mechanical Inc. The package was forwarded to WLPC for concurrence, not approval.

Project Execution

Mechanical Inc. mobilized and started their portion of the project. Four weeks later, the Site Safety Engineer issued a stop-work order to Mechanical Inc. This caused a delay of 6 days until the safety issues were resolved. The ultimate result was CONTRACTOR did not obtain their schedule incentive and, in fact, were assessed a \$210,000 liquidated damage amount.

During the safety audit, it was determined that Mechanical Inc.'s safety performance in the previous twelve months was not in compliance with the CONTRACTOR's requirements. Also, they did not have a current qualification questionnaire on file with CONTRACTOR.

During that same four-week period, at the regular project status review, the Project Controls Lead submitted a projection that the anticipated cost of the project was \$250K higher than the approved budget. Analysis of the budget showed that the project had been 98 percent bought out, and all contingencies were spent. This resulted in additional lost earnings above and beyond the original \$100,000 Mechanical Inc bid was above the project budget.

For Discussion

1. Where did this project's subcontractor bidding process fail to comply with approved processes? List specific steps
2. Should the Contractor's safety record have been considered at the time of award? Should Mechanical Inc. have been a bidder? If not, what process steps require disqualification?
3. How would the process prevent the CONTRACTOR from losing potential profits and possibly making additional profits?

Procurement Checklist

Contractor Name	Job Site Location	Client	Project Number
Date	Location	Project Manager	Preparer

Develop Project Procurement Plan

Control Question	Yes	No	N/A	Remarks
Does the Project Procurement Plan define applicable work processes and any deviations to standard?	☐	☐	☐	
Is the project procurement plan reviewed and approved by Project and Corporate Management?	☐	☐	☐	

Monitor Export Validity

Control Question	Yes	No	N/A	Remarks
Are potential suppliers screened against the Denied Parties database to determine whether they comply with applicable regulations?	☐	☐	☐	
Does the buyer place standard export validity clauses in purchase orders and inquiries for material, equipment, and software to be exported from the U.S. or with U.S. content plus other clauses, as required by applicable regulation?	☐	☐	☐	
Does the Buyer verify that all new suppliers added to the Project Approved Suppliers List are screened against the Prohibited Parties List?	☐	☐	☐	

Put New Suppliers in Database

Control Question	Yes	No	N/A	Remarks
Are all purchase orders for direct materials written to suppliers listed in the Supplier Information System (SIS) database?	☐	☐	☐	

Supplier Monitoring

Control Question	Yes	No	N/A	Remarks
Does the Expediter monitor supplier progress against construction required on-site dates and report any potential delays?	☐	☐	☐	

Develop Bidders List

Control Question	Yes	No	N/A	Remarks
Are Supply Agreements in place with equipment and material suppliers utilizing technically acceptable equipment and materials?	☐	☐	☐	
Are master agreements and justifications documented where single/sole sourcing is required by the contract or	☐	☐	☐	

Procurement Checklist

government legislation?				
-------------------------	--	--	--	--

Evaluate Bidder Quotations

Control Question	Yes	No	N/A	Remarks
Do buyers request technical reviews of supplier quotations by the requisitioning party when specified on the requisition?	☐	☐	☐	
Is the recommended bidder's offer compared with the Field Need Date to evaluate compliance with project needs?	☐	☐	☐	
Is a Commercial Bid Tabulation of at least three bids approved per the Table of Delegated Authority?	☐	☐	☐	

Establish Standard / Project Terms and Conditions

Control Question	Yes	No	N/A	Remarks
Does the Site Buyer, or his/her representative, submit non-commercial exceptions to the Company Standard Terms and Conditions to the legal department for approval?	☐	☐	☐	
Is client approval gained for revisions to the Company Standard Terms and Conditions, where required?	☐	☐	☐	

Implement Buy Back Agreement

Control Question	Yes	No	N/A	Remarks
Are buy-back agreements - addressing deadline for returns, restocking charges, items not eligible for buy-back and responsibility for shipping costs - included in the purchase orders for bulk materials?	☐	☐	☐	
Do worksites provide a list of surplus materials in good condition to Purchasing and their buy-back coverage assessed?	☐	☐	☐	
Does the buyer raise a change order to reconcile effects on purchase order value because of invoking the buy-back agreement?	☐	☐	☐	

Initiate / Invoke Liquidated Damages

Control Question	Yes	No	N/A	Remarks
Do all major purchase orders/agreements include terms for liquidated damages unless the Client dictates otherwise?	☐	☐	☐	
Is Legal consulted when there is any question of the contractual interpretation rights under the contract?	☐	☐	☐	

Prepare and Issue Purchase Order / Agreement

Control Question	Yes	No	N/A	Remarks
Are purchase orders/ agreements approved per the buyer's signatory level and the Project Approval Matrix?	☐	☐	☐	
Is purchase order/agreement supported or accompanied by a properly approved requisition?	☐	☐	☐	
Is a Notification of Commitment (NOC) issued to allow for	☐	☐	☐	

Procurement Checklist

the issuance of a purchase order if receipt of the requisition for purchase is delayed following the approval of the Recommendation or Bid Tabulation and commitment is critical?				
---	--	--	--	--

Prepare and Issue Change Order

Control Question	Yes	No	N/A	Remarks
Is an appropriate change authorization issued for all purchase changes and authorized per the project approval matrix and Change Authorization procedures?	☐	☐	☐	

Cancel Purchase Order / Agreement

Control Question	Yes	No	N/A	Remarks
Does the Buyer process purchase orders only when authorization is received per delegated authority as documented in the List of Delegated Authorities	☐	☐	☐	

Initiate Direct Material Substitution Request (DMSR)

Control Question	Yes	No	N/A	Remarks
Does the Project Inspector receive the disposition of the Concession Request from Engineering, ensure that the Concession Request is sent to the supplier and file a copy with a unique number in the project Concession Request Register?	☐	☐	☐	

Review and Approve Supplier Invoices

Control Question	Yes	No	N/A	Remarks
Do Procurement and/or Engineering personnel verify to Financial personnel through the Request for Invoice Review system that milestones have been met before authorizing payment to suppliers?	☐	☐	☐	
Does the PPSM maintain an invoice review log?	☐	☐	☐	
Does the buyer review the invoice within 10 days of the receipt of the RFIR or email from A/P to ensure compliance with the PO payment terms?	☐	☐	☐	
Does the Buyer agree on the issue of a Credit Note with the supplier or raise a change order for the additional cost for any irreconcilable invoice/PO/delivery verification when a Request for Invoice Review (RFIR) is received from Accounts Payable?	☐	☐	☐	
Does Purchasing verify milestone satisfaction with the Requisition Engineer, Expediting, Document Management, and/ or Inspection, as necessary?	☐	☐	☐	
Does the buyer attach a copy of the change order to the RFIR, notifying that a change order has been issued?	☐	☐	☐	

Subcontractor Qualification

Contracting Entity

Contractor Name	Date	Address	City/State/Zip
Contact	Contact's Email	Phone Number	Fax Number

Parent or Affiliated Company (if applicable)

Contractor Name	Date	Address	City/State/Zip
Website	Contact's Email	Phone Number	Fax Number

Description of the type of work you have performed over the last 2 years. (you may attach specific project write-ups instead of this write-up)

Personnel and Labor Posture

Question	Response
Are you a disadvantaged business?	☐ Yes ☐ No ☐ % of ownership
Are you a minority business?	☐ Yes ☐ No ☐ % of ownership
Are you a small business	☐ Yes ☐ No
How many Field Construction employees do you have?	
How many permanent employees do you have?	
What is your average number of employees over the last 3 years	
What is your company workforce involved in Construction?	
What is your company workforce involved in Engineering?	
What is your labor posture?	☐ Open Shop ☐ Union ☐ Merit Shop
What is your minority classification?	
What was your highest number of employees over the last 3 years?	
What was your lowest number of employees over the last 3 years?	
Who are you certifying agencies?	
List the numbers of current employees for the following positions.	
a. Senior management (above project managers)	
b. Project Managers	
c. Engineers (by discipline)	
d. Safety	
e. Quality	
f. Schedulers	
g. Cost Engineers	
h. Superintendents by Discipline	
i. Procurement (Purchasing Agents, Buyers, and	

Subcontractor Qualification

Expeditors)	
-------------	--

General

Question	Response
Are there any material judgments, claims, or suits pending or outstanding against your firm?	☐ Yes ☐ No If yes please explain
Are you currently involved in any litigation or arbitration?	☐ Yes ☐ No If yes please explain
Are you now, or have you ever been involved in any bankruptcy or reorganization proceedings?	☐ Yes ☐ No If yes please explain
Give a Description of work performed with your own forces	
Have you ever failed to complete a project?	☐ Yes ☐ No If yes please explain
What are your business and professional memberships?	
What are your normal geographic areas of Operations?	
What Code capabilities or stamps do you hold?	
What is your average project size?	
What states are you licensed to work?	
What type of contracts do you usually accept?	☐ Lump-Sum ☐ Cost Plus ☐ Unit Price ☐ Negotiated
What work do you normally subcontract?	

Project Approach – explain how you typically staff and manage a project

Quality Approach – explain how you typically ensure quality on your projects

Cost and Schedule Control – explain how you typically control cost and schedule on your projects

Systems – explain any systems (electronic or manual) used on your projects

What is your overtime policy?

What construction equipment do you own? List any major equipment.

What is your previous experience with Contractor – list last 6 projects, their location, dates, and value

Subcontractor Qualification

What are your company's discipline strengths in order of competence? Limit your response to areas which are verifiable by your actual experience

Business and Financial Information

Question	Response
Attach your most recent audited financial statement	
List your top six Officers, Partners, or Owners?	
What is the value of your largest project in the last four years?	
What is your annual business volume for the past four years?	
What is your current backlog?	
What is your Dunn and Bradstreet Rating?	
What is your single project-bonding limit?	
What type of firm	☐ Corporation ☐ Partnership ☐ Sole-Proprietorship
Who is your Bonding Company?	
Who is your Insurance Company? Please attach a sample insurance certificate showing normal limits	
Who is your principal Banking Reference?	

I certify the information contained in this document and its attachments are correct to the best of my knowledge.

Name of Organization	By	Title
Signature	Date	Witness Signature and Date

Subcontractor Qualification

Safety Performance and Process

Workers Compensation Insurance – Experience Modification Rate

Question	Response
Provide your current EMR	
Provide your EMR for 1 year ago	
Provide your EMR for 2 years ago	
Provide your EMR for 3 years ago	
The following data is provided from your OSHA 200 log for each of the last three (3) years	
Lost Work Day Incident Rate calculated by using the following formula – Total of Lost Workday Cases x 200,000 divided by Employee hours worked	
Number of cases with days away from work or restricted activity (Total from columns 2, 6, 9 and 13 on the OSHA No. 200 Log)	
Number of employee hours worked	
Number of fatalities (total from Columns 1 and 8)	
Number of lost workday cases (Total from Columns 3 and 10 on the OSHA No. 200 Log)	
Total Incident Rate calculated by using the following formula Total of Recordable Cases x 200,000 divided by Employee hours worked	
Total number of recordable case (Total from Columns 2, 6, 9 and 13 on the OSHA No. 200 Log)	

Safety Performance and Process

Safety and Health

Question	Response
Do you employ full-time safety supervision on all jobsites?	☐ Yes ☐ No
Do you have a documented safety and health program? (Attach or forward a copy with this form)	
Do you have a Personal Protective Equipment (PPE) Policy, for example, mandatory hard hats, safety glasses, etc.?	☐ Yes ☐ No If yes please explain
Do you have a Safety Officer/Department of your company?	☐ Yes ☐ No If yes please explain
Does your Safety and Health Program address all OSHA Standards as they apply to Contractors, for example, Hazardous Communication Standards and the requirements associated with those Standards	☐ Yes ☐ No
Have you had an OSHA citation in the past five years?	☐ Yes ☐ No If yes please explain
Does your company have a Substance Abuse Program that is designed to provide a Drug-Free Workplace? If the answer is yes, please enclose a copy of the policy with this form. If your answer is NO, would you agree to adhere to the CONTRACTOR's Substance Abuse Policy for Contractors?	☐ Yes ☐ No
If yes, does it include Pre-employment screening?	☐ Yes ☐ No

Subcontractor Qualification

Question	Response
If yes, does it include Random Testing?	☐ Yes ☐ No
If yes, does it include For Cause Testing?	☐ Yes ☐ No
Who is included in the testing?	

Comment on any other areas of your company's safety program and policies that you feel will be appropriate in our evaluation.

Comment on any other areas of your company's safety program and policies that you feel will be appropriate in our evaluation.

Safety and Health Training

Question	Response
Are environmental audits conducted on your jobsites?	☐ Yes ☐ No What is Frequency?
Are jobsite foremen's safety meetings required?	☐ Yes ☐ No What is Frequency?
Are regular safety/housekeeping audits conducted?	☐ Yes ☐ No What is Frequency?
Are regular toolbox safety meetings required?	☐ Yes ☐ No What is Frequency?
Are your foremen trained in CPR	☐ Yes ☐ No
Are your foremen trained in First Aid	☐ Yes ☐ No
Do foremen receive formal safety training	☐ Yes ☐ No What are the specific Topics?
Do you have an incident investigation procedure?	☐ Yes ☐ No
Do you have certified trainers?	☐ Yes ☐ No
Do you require on-site supervision to have OSHA 30 hour Training Course	☐ Yes ☐ No
Do you require subcontractors to meet the same safety standard as you?	☐ Yes ☐ No
Do you train on environmental subjects	☐ Yes ☐ No What are the specific Topics?
Does senior management participate in incident investigations?	☐ Yes ☐ No
What level of management in your company receives a Field Safety Report?	
What type of safety orientation do you provide for your new hires?	