

Bulletin No. PC1 File: Purchasing

Purchasing for Profit

INTRODUCTION

The mechanical and electrical construction industry is getting more complicated every year, faced with rapid escalation of material and labor costs, ever increasing and aggressive competition from both union and non-union quarters, diminishing gross profit margins, and increased delays and difficulties encountered in attempting to meet construction schedules.

This bulletin is designed to help you establish purchasing techniques that help protect your business and purchases. Before establishing your purchase order system, decide who in your company can set up a vendor. It is important that all vendors be validated by someone with ownership in the company. This not only protects you from someone setting up a bogus vendor for his or her benefit, but allows you to know who your vendors are. Your vendor list should be made up of reliable, financially reputable vendors.

The supplier or vendor who fails to provide critical construction materials in a timely fashion places the contractor in a potentially explosive position. In today's construction market, the prudent contractor simply must pay more attention to contracts with suppliers of key materials. If a key supplier is unable to deliver materials as promised—or

materials do not meet required specifications even though the contractor was assured at bid time that the quoting vendor thoroughly checked out all engineering requirements—he can often find himself in a position where he is facing tremendous additional costs to secure materials from an alternative source. Some of the risk in operating in today's construction market can be eliminated or reduced by a more strict and formal policy regarding the issuance of purchase orders.

A purchase order is a document with a front and back side. This does not mean that it involves two parties. although it most often does. The purchase order form normally contains specific purchase information on the front side - such as date of required shipment, quantity of items involved, description of items, unit price of the items, etc. The second side is usually the back of the purchase order that contains one or more pages of "fine print" intended to protect the contractor should legal questions arise and resolutions of disputes become necessary.

PURCHASE ORDERS: THE FRONT SIDE

The front side is used by the contractor to define what material he needs and to protect his interests in the event a supplier fails to perform as

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promised. The front side of the purchase order is also a good place for the contractor ("purchaser") to limit its exposure by taking exception to the vendor's quotation and the vendor's limitation of liability (language usually included within the vendor's quotation). In light of the fact that most vendors' quotations are offered subject the vendors' terms and conditions, standard warranties, etc. the contractor should consider incorporating the following language on the front side of the purchase order:

"PRIOR TO THE ACTUAL SALE OF THE ITEMS CONTAINED HEREIN, PURCHASER TAKES EXPRESS EXCEPTION TO VENDOR'S QUOTATION PERTAINING TO THIS ORDER. ADDITIONALLY, PURCHASER TAKES EXPRESS EXCEPTION TO VENDOR'S LIMITATION OF LIABILITY PERTAINING TO THE PRODUCTS PROVIDED UNDER THIS ORDER."

Please note that smaller contractors that do not necessarily engage in larger volumes of annual purchases may find it very difficult to negotiate the above language into their purchase orders. However, we urge all contractors to attempt to limit their exposure; the language can always be stricken.

The front side of a sample purchase order (Exhibit A) contains several categories of information such as:

- Date of issue
- Shipping terms (See Bulletin PC3 for FOB information.)
- Payment terms
- Delivery date (call project manager 24-48 hours before delivery)
- Contractor's name and address
- Assigned purchase order number
- Project name
- Project number and account number

- Vendor name, address and contact
- Ship-to address
- Quantities and unit types
- Description of materials
- Line and total prices
- Signature of both parties
- Number of submittals required
- Owner and maintenance manuals required

Review each item for information on the front side of a typical purchase order for some "do's and don'ts" for properly issuing the order so that the contractor's position will be protected if a vendor does not meet the requirements of the construction project schedule or the engineer's specification data.

Contractor's Name and Address

All purchase orders should be ordered with the contractor's name and address printed prominently on the form. This will speed the process of completing the form and add uniformity to all of the company's documents.

Assigned Purchase Order Number

There must be a unique number for each purchase order to be matched with the vendor's invoice(s). It is recommended that every vendor is to reference all correspondence and invoice(s) with this number.

Project Name

The project name printed or written on the purchase order is required to identify quickly the vendor for the project. This is also a double check with the project number to make sure that the vendor's invoice will be accounted for with the right project.

Project Number and Account Number

Every project is assigned a number that accounting will use to record each invoice properly for job costing. It must be printed or written on the purchase order. Most companies require an account number on the purchase order to place invoice costs to the correct job costing code.

Vendor Name, Address and Contact

The complete name, address and contact of the vendor must be written or printed on the purchase order. This identifies the other contracting party.

Ship-to Address

This will help you make sure the material or equipment gets to the right place for use or temporary storage.

Date of Issue

Never issue a purchase order without a date, and have the vendor date his signature. By failing to include the date on the purchase order, a significant argument may result regarding the purchase order date. Potential conflicts between the request for quotation, the vendor's original quote, and later notifications by either party may be avoided by dating the purchase order and all other documents.

Delivery Date

Every purchase order should be issued with a specific delivery date required, if possible. You should try to avoid using vague statements of delivery requirements (e.g., as needed," "when required," "will advise," "ASAP" or other catch-all phrases). If a vendor fails to provide materials in a timely manner and places the contractor in a position of facing significant increased costs as a result, the contractor must be able to show that a contract existed between him and the vendor, and that the vendor specifically agreed to a promised delivery date for the material. Statements such as "will advise" provide a very convenient loophole for the vendor and may mean that the subcontractor will not be able to legally recover the increased

costs caused by the failure of the vendor to meet the required delivery date.

Shipping Terms

Don't think that shipping terms are not important! If you purchase materials and specify that they are to be provided "F.O.B. Jobsite," the term means that the vendor will responsible for filing any freight claims or pursuing any loss or damage to the goods which occur prior to the time that the goods arrive at the project site. If the purchase order indicates that the shipping terms are "F.O.B. Factory," then once the goods leave the shipping dock at the factory, the vendor's responsibility for them ends, and the subcontractor will have to pursue freight claims, insurance claims, or whatever other means are necessary to recover lost or damaged goods. Any contractor who has ever had the painful experience of having to file and collect freight claims or insurance claims on damaged or lost goods knows that it is an endless procedure and one that can consume literally hundreds of man-hours of time and may still result in a frustrating conclusion. Any time the subcontractor can make the vendor responsible for pursuing these claims, he should do so.

The F.O.B. point also determines ownership of the products. Therefore, if a contractor accepts F.O.B. factory terms, that contractor owns the products when the shipment leaves the factory loading dock. Conversely, if the contractor's purchase order stipulates "F.O.B. jobsite" or "F.O.B. delivery destination," the contractor does not own the goods until the products are signed for (after inspection and unloading) at the point of delivery. In all cases, the contractor should not unload a shipment until after the shipment has been inspected for apparent shipping damage. If damaged goods are discovered, the contractor should note the damage

on the shipper's bill of lading prior to signing and accepting the shipment.

Items and Quantities

Unless the contractor is absolutely certain of the quantity of materials involved, he should avoid specifying a specific quantity. For example, if you are purchasing "one lot" grills and registers from the manufacturer, you may find that stating the exact quantity of each of the items involved presents a problem later. Suppose a vendor quotes quantities of air distribution equipment, which he believes the plans and specifications require. If the contractor repeats these quantities on his purchase order and buys the same number of grills, registers, and diffusers that the vendor quoted, then the contractor will have no recourse if it turns out that the quantities quoted by the vendor are not the same quantities required by the plans and specifications.

On the other hand, if the contractor issues the purchase order and indicates that the vendor is to furnish "one lot as required by the plans and specifications," then the contractor has sufficiently tied the vendor down to providing whatever quantities of grills, registers, and diffusers are required by the construction documents. Normally there is nothing wrong with indicating the quantity required by the contract documents. It is only in those areas of purchase where the exact quantities may be open to various interpretations from different individuals that the contractor should be careful to issue the purchase order calling for "one lot as required by the contract documents."

Description of Items

Suppose you are bidding a job that requires you to provide a 500-ton absorption chiller. If a vendor quotes his particular make of chiller and has the

lowest price, you may be tempted to issue the purchase order to indicate that he provide his specific model of equipment; i.e., "Provide one Model XYZ-123 Acme 500-Ton Chiller complete with accessories as quoted in your proposal dated January 1, 2002." This may turn out to be a major mistake and cause the contractor significant problems. Suppose the Acme chiller, which the contractor has assumed will meet the specifications, is not acceptable to the engineer. Then, in most cases, the Acme representative will be under no obligation to provide another manufacturer's piece of equipment or to meet plans and specifications since he only quoted a specific piece of equipment and that's exactly what you purchased.

On the other hand, it is possible to write a purchase order and to specify that the vendor "Provide 1 each 500-ton chiller in complete compliance with the plans and specifications attached." If this method is used to describe the equipment involved, the vendor, upon acceptance of the purchase order, has agreed to pro-vide one chiller that meets the plans and specifications. If the Acme 500-ton Model XYZ-123 chiller does not meet the plans and specifications, then he is obligated to provide a 500-ton chiller that does meet the plans and specifications. If you have any doubts about a supplier's equipment or materials meeting specification requirements, it is a good policy to write the purchase order so that the vendor recognizes that he has agreed to provide equipment or materials to meet the specifications regardless of his personal interpretation of their requirement or regardless of his proposal.

What about the vendor's fine print on the back of his proposal? If you describe the equipment or materials to be purchased as "one Model XYZ-123 in accordance with your proposal", then you have incorporated, by reference, the

vendor's fine print from the back of his original proposal. This may be a serious error since the vendor's fine print may specifically deny any responsibility for damages resulting from his inability to meet the specified delivery dates or to meet the specification requirements. Therefore, it is a good idea to avoid using phrases such as "in accordance with your proposal" since you are incorporating language that may not be to your benefit. In cases when it is absolutely necessary to note a manufacturer's model number on the purchase order, the suggested language previously mentioned under the heading "PURCHASE ORDERS: THE FRONT SIDE" on pages 1 and 2 (where the contractor "takes express exception to the vendors quotation and any limitations of liability") will help to ensure the contractor is not tied into the vendor's/manufacturer's terms and conditions (fine print).

The best policy for purchasing materials is to tell the vendor that he is to provide "one lot," or a specific quantity of materials or equipment, "in accordance with plans and attached specifications." You should attach a copy of the pertinent specification requirements to the purchase order so that the vendor will be aware of the requirements that must be met in order for his equipment to be acceptable.

Add warranty language to the PO when odd warranty time frames or temporary usage are required. Also see bulletins "Understanding Manufacturer's warranties" and "Temporary Usage of Equipment" for additional concerns for warranty issues for the PO.

Pricing

There is no hard and fast rule about entering either a lump sum or individual unit prices on a purchase order. The contractor about to issue a purchase order should think about the

following: If the purchase order only indicates a lump sum, there may be arguments in the future over the value of individual items on the purchase order. It may be necessary to change, add, or delete items from the purchase order at a future date. Therefore, it would be wise to indicate the unit prices for these items as well as a lump sum total. When purchasing materials that require a "quantity discount," it is a good idea to indicate the discount on the purchase order should the supplier later claim that the price or discount of purchased materials has changed.

Another reason to avoid issuing a purchase order that states "furnish all in accordance with your proposal" is that suppliers' prices may change during the contract term. If the supplier's proposal clearly contains a statement indicating that his prices are "subject to escalation and final price is to be determined at time of shipment," by referring to his proposal, you may have given the supplier a contract with an escalation clause, while at the same time agreeing to provide the mechanical work without being able to escalate your material price.

The contractor could state on the front side of the last page of the purchaser order:

"ALL PRICES. INCLUDING PRICES. SHALL UNIT REMAIN **EFFECTIVE (WITHOUT INFLATION)** FOR THE DURATION OF THE PROJECT. THE QUANTITIES NOTED HEREIN ARE APPROXIMATE AND THE PURCHASER MAY REDUCE OR IN-CREASE QUANTITIES AT THE UNIT PRICES NOTED AS MAY BE RE-QUIRED. RETURNED PRODUCTS ARE NOT SUBJECT TO RETURN/ **RESTOCKING CHARGES."**

Additionally, at the time the purchase is made, we suggest the

contractor obtain breakout pricing for non-taxable items such as freight (freight is non-taxable in some states) and a breakout price for labor required for startup and demonstration of the products beina purchased. contractor should indicate the freight the purchase amount on especially if freight is non-taxable in the state where the product is delivered, to clearly define the exact amount of the purchase order, including "applicable" sales taxes.

If the project is tax exempt, attach the tax exempt certificate provided from your contract with the PO, and note on PO front that project is tax exempt. This will save you time with vendor billing inconsistencies.

Finally, review the completed purchase order for accuracy.

Startup Subcontract

We suggest the contractor take the breakout price for the startup (as noted above) and include that portion of the vendor's responsibilities in a separate "startup agreement" document (refer to Exhibits C, D and E, attached, for exam-ple startup subcontract documents). The contractor should have insurance provisions in its standard subcontract terms. Insofar as the purchase order terms have no provision for the vendor to provide insurance when performing "on site" services, utilization of a "subcontract" to the vendor for performing startup and demonstration activities will further protect the contractor from any injuries. including death, property damage or other losses and/or damages caused by the vendor. Without these insurance requirements, the contractor is left exposed to possible damages caused by vendors performing activities on the contractor's job site. Make sure you transfer the "contract insurance liability limits" and other "contract pass through

paragraphs" for the particular project into the subcontract and list whether additional insured's are required.

Signatures

Make sure that your vendors and suppliers sign and accept your purchase order before you accept and pay for any of their materials or equipment. It is best to insist that the supplier sign and accept the purchase order in your office the day you give him the order. If this is not possible, then you should instruct the supplier to sign and return the purchase order and state that the purchase order is not considered to be valid until your firm receives and accepts the signed order. Your accounts payable department should be instructed not to pay any supplier or vendor unless there is a signed and accepted purchase order on file.

If the purchase order is sent to a supplier with the understanding that he will sign and return it later, then a policy or procedure must be instigated to ensure that the signed purchase order, when it finally returns to the contractor's office, has not been amended or changed in any way that would become objectionable to the contractor.

Finally, a word about the "tail that wags the dog." Many suppliers are such large organizations that they are able to demand or insist upon terms and conditions on purchase orders that are not in the best interest of the contractor. The vendor may refuse to ship his product without shipping terms of F.O.B. Factory or he may refuse to accept your fine print that indicates that his failure to meet the promised delivery date will make him responsible for any resulting cost incurred. In many instances, it will be impossible for the contractor to force the supplier to agree to a contractor's terms or conditions. If this is the case, the contractor must simply recognize that he is accepting additional risk in return for a lower supplier price, or he may be unable to find an alternative source of supply and have no choice but to accept this risk.

In many cases, purchasing based on the lowest dollar quoted ultimately costs the contractor more money in the end. For example, if the contractor has a prime contract on a federal project and he chooses to purchase a major portion of the contract materials from a supplier who later declares bankruptcy, the courts do not view that bankruptcy declaration to be an excusable delay. The contractor will be held to the original completion date, and the fact that the supplier went broke will provide absolutely no relief for the contractor. Purchasing based on "low dollar" alone does not always make good economic sense. Select suppliers and vendors that will provide an acceptable as well as economical product. Careful attention to the issuance of purchase orders to vendors suppliers will improve contractor's chances of survival and may make his life much more pleasant.

PURCHASE ORDERS: THE BACK SIDE

The back side of a typical purchase order (Exhibit B) usually contains the "fine print" which protects the contractor from non-performance. However, do not neglect the back side. It is extremely important. If a contractor does not have "fine print" developed for purchase order agreements, he should do so as soon as possible. We have developed a sample format for "fine print" which a contractor could use in working with a competent local attorney for tailoring to the specific requirements of the state in which he is operating. Different states have different legal requirements regarding contracts. What may be an acceptable set of "fine print" in the state of New York may not provide adequate protection for a

contractor in Louisiana. It is an intelligent and effective investment of a contractor's effort and money to spend a couple of hours with a good construction attorney to develop adequate "fine print." The language should be updated every few years to comply with changes in the law.

EXHIBIT A

PURCHASE ORDER YOUR COMPANY / MECHANICAL CONTRACTORS

[Address] [Phone]

		P.O. No		_ This number must appear on all invoices, shipping m bills of lading and packages.	
	Order Date	!	_, 2		
	Our Job No	Ship To:			
copies of operation, maintenance required for the owner's use. Final pa				PLEASE	
after these instructions are received.				ADD	
Payment Terms ☐ Original Orde ☐ Confirming of	order. DO	copies of submittals required. □ approval required before		proval required before	
NOT DUPLICA SHIPMENT	NOT DUPLICATE SHIPMENT		shipment □ approval not required		
	According to plans and specific				
	dated includi	ng the following	addend	a and bulletins:	
		CEMENT			
	ACKNOWLE TE AND RETURN AC	DGEMEN.	3EME	INT AT ONCE	
COMPLE	TE AND RETURN AC	VHOME			
				ven though your quoted price may	
			no	clude freight, startup & other similar ontaxable items, all invoices must be	
				mized so that freight, startup & other on taxable items can be identified.	
				(Total)	
		Yo		nase Order is Hereby Acknowledged and Accepted, including	
		an	d conditi	ons stated on the face and reverse side hereof. Signature Date	
		W	e will nip on	Our Order No. is	
		Pe	erson Co	ntrolling This Order	

EXHIBIT B

GENERAL CONDITIONS AND INSTRUCTIONS

- Identification of shipments. The Purchaser cannot and will not be responsible for any material received unless each package, case, etc., is clearly identified on its outer
 covering as to: 1. Seller 2. Purchase Order Number If Purchaser furnishes shipping tags for direct shipment to Purchaser's customer, Seller assumes responsibility of
 nonacceptance of shipments by Purchaser's customer in the event such shipping tags are not attached to packages, case, etc. On shipments direct to Purchaser's customer
 where no shipping tags are furnished, packages, cases, etc., must be marked as specified on face of order.
- 2. Boxing, Packing or Cartage. No charges for boxing, packing or cartage will be allowed unless stated hereon or later agreed to by this company in writing.
- 3. Invoices. Invoice showing Purchase Order Number must be mailed to the Purchasing Department of the Purchaser not later than the day following shipment, irrespective of whether shipment is in part or in whole.
- 4. Inspection. The material or apparatus to be supplied against this Purchase order shall, at the Purchaser's option, be subject to inspection and test at the maker's works.
- 5. Rejected material. Rejected material shall be returned to the Seller at Seller's expense.
- 6. Time of delivery of this order is of the essence, and Purchaser reserves the right to cancel without cancellation charges all of any part of this order if not filled within the specified time. exercise of such right of cancellation shall not be deemed a waiver of any other right reserved to the Purchaser herein, or by law, for any delay or failure to deliver as specified.
- 7. No partial shipments accepted unless agreed upon by both parties.
- 8. The Seller agrees to comply with any and all federal, state, county and municipal and/or other local regulations, laws, ordinances and enactments of whatever kinds, applicable at the time of sales or which may become effective during the period of construction or fabrication, shipping and/or installation (if installation is included) of the materials comprised under this Purchase Order.
- 9. The price or prices of this order are not subject to change or any surcharges resulting from the imposition now or in the future of any sales taxes, federal, state, municipal or otherwise, unless agreed to or requested by Purchaser.
- 10. In the event approval is not secured from the Owner, or if the Owner's order to the Purchaser is cancelled, cancellation of this order shall occur automatically, without cancellation charges by the Seller, and no obligation of any description whatsoever, shall exist on the part of the Purchaser toward the Seller.
- 11. The contract price appearing on the Purchase Order is final as to payment for the material covered by the specifically listed items, as defined by the enumerated specification paragraph numbers, with exceptions as noted, and there shall be no additions to or other modifications or such contract price except as such modifications may result from actual change in the specifications. If such changes become necessary, any alteration of the contract shall be covered by separate order, which shall be issued to cover such changes. Seller shall not proceed with changes affecting contract price without specific authorization in WRITING from the Purchaser.
- 12. Payment and discount periods shall commence only upon receipt of both the material and proper invoice or invoices at designations specified in this Purchase Order. The Purchaser reserves the right to return to the Seller for correction any and all invoices containing error and/or not in agreement with this Purchase Order.
- 13. The Purchaser reserves the right to return to Seller at the invoice price all items which are regularly carried in Seller's stock.
- 14. Seller represents and warrants to Purchaser that all material and/or equipment rented, leased or purchased under this Purchase Order meets all standards of the Occupational Safety and Health Act off 1970 and Construction Safety Act of 1969, as amended from time to time, and of applicable state and local laws, regulations, standards or requirements pertaining to safety, as amended from time to time.
- 15. All material and/or equipment furnished under this order shall be guaranteed by the Seller against defects, and Seller agrees to replace without charge to Purchaser said material and equipment, or remedy any defects, latent or patent, not due to ordinary wear and tear, or not due to improper use or maintenance, which defects may develop within one year fro date of acceptance by Owner, or within the guarantee period set forth in applicable plans and specifications, whichever period is longer.
- 16. All material and equipment furnished under this order shall be subject to the approval of the architect, engineer, or any other party designated, and Seller shall furnish the required submittal data and/or number of samples for said approval. In the event such approval is not obtained, the order is cancelled, with no liability on the part of either Purchaser or Seller, unless the order is placed with the understanding that the material and/or equipment is to be supplied of the type and in such a manner as to meet requirements of plans and specifications. In the latter case, Seller shall comply without further cost to Purchaser.
- 17. All material and equipment furnished hereunder shall be in strict accordance with plans, specifications and general conditions applicable to the contract of Purchaser with the Owner or another contractor, and Seller shall be bound thereby in the furnishing of material and equipment under this Purchase Order.
- 18. Seller shall guarantee equipment covered under this purchase order to produce capacities or meet design specifications and function: (1) as called for in the plans, specifications or addenda; and (2) as herein set forth; and (3) as published or warranted by the manufacturer for the equipment involved. In the event the equipment does not meet the foregoing requirements, Seller shall immediately on notice replace same, or remedy any deficiency, without expense to the Purchaser; and further, Seller shall pay to Purchaser all consequential loss or damage resulting there from.
- 19. The Seller hereby agrees to indemnify and save harmless the Purchaser for and against all claims, liability, loss, damage or expense, including attorneys' fees, by reason of any actual or alleged infringement of letters patent, or of any litigation based thereon covering any article purchased hereunder.
- 20. Seller shall furnish all necessary lien waivers, affidavits or other documents required to keep the Owner's premises free from liens or claims for liens, arising out of the furnishing of the material or equipment herein, as payments are made from time to time under this purchase order.
- 21. All prior representations, conversation, or preliminary negotiations shall be deemed to be null and void, superseded by the terms of this order, and no changes will be considered approved unless this purchase order is modified by an authorized representative of Purchaser in writing.
- 22. In the event of default of any of the terms or conditions set forth herein, the Seller agrees to pay all costs resulting there from, including but not limited to reasonable attorneys' fees.
- 23. This purchase order, when accepted by Seller, shall constitute a valid and binding contract.

EXHIBIT C

MECHANICAL CONTRACTOR

The "Contractor" herein Street Address City, State and Zip Code

START UP AND TRAINING **DEMONSTRATION TO CUSTOMER SUBCONTRACT**

Telephone: Facsimile:	(This Subcontract is to be used when the amount is less than)
	Date: Contract No Job No
SUBCONTRACTOR	PROJECT

demonstration for the______, in accordance with the requirements set out on Attachment "A" attached hereto and for the price of \$ This Agreement is the entire Agreement between the parties. All prior representations or agreements, whether written or oral not

Contractor, Owner and/or any other entity for which work is done directly or indirectly, in connection with this Agreement.

This Agreement covers the furnishing by the Subcontractor of all instructors and personnel, for the complete start up, training, and

incorporated herein, are superseded. For the purpose of this Agreement, the word "Customer" refers collectively to the General

- Subcontractor agrees to indemnify and save harmless the Contractor and/or Customer from any loss, expense, damage, or injury caused or occasioned, directly or indirectly, from all fines, penalties or costs incurred by Contractor or Customer, pursuant to the Occupational Safety and Health Act of 1970, as amended, and all federal, state and local construction safety laws by reason of Subcontractor's noncompliance with those laws, or by reason of the conduct of Subcontractor, its employees or agents.
- The Subcontractor agrees to indemnify, defend and hold harmless the Contractor and any party the Contractor is required to indemnify, defend and/or save harmless under the Contract Documents and their respective officers, directors, principals, agents and employees, from and against any and all claims, actions, losses, expenses, damages, injuries, demands or any liability whatsoever, including, without limitation, reasonable attorneys' fees and other costs (collectively, the "Losses"), arising in whole or in part and in any manner, from the acts or omissions of the Subcontractor, it's officers, directors, principals, agents, employees or subcontractors, in the performance of this Agreement. The Subcontractor shall defend and bear all costs of defending any actions or proceedings brought against the Contractor and any party the Contractor is required to indemnify, defend and/or save harmless under the Contract Documents and their respective officers, directors, principals, agents and employees, arising in whole or in part out of any such acts or omissions, provided, however, that the Contractor and/or Customer shall have the right to select counsel to conduct such defense. This indemnification shall be fully applicable to all Losses even though such Losses may have been contributed to, or are alleged to have contributed to, some act or omission of the Contractor. The parties acknowledge that the indemnification provisions contained herein are material inducements to the execution of this Agreement and are provided in consideration of the mutual promises, agreements and covenants contained herein and other good and valuable consideration, receipt and legal sufficiency of which are hereby acknowledged.
- The Subcontractor shall procure for the work, and maintain in force throughout the project, Worker's Compensation Insurance, Employer's Liability Insurance, Comprehensive General Liability Insurance and Automobile Liability Insurance. The Subcontractor's General Liability Insurance policy will be endorsed to provide that the policy general aggregate is applied on a per project basis. The Contractor, and all other entities so required by contract, and their directors, officers, representatives, agents and employees shall be added as Additional Insureds to all of the Subcontractor's insurance policies (except Workers' Compensation). The Subcontractor's insurance shall apply on a primary non-contributory basis. The insurance of the Contractor and all other Additional Insureds will not be called upon to contribute to any claims covered by the Subcontractor's policies referenced in the certificate. Subcontractor shall have all policies endorsed to provide a waiver of subrogation in favor of Contractor and all other Additional Insureds. Subcontractor's Workers' Compensation coverage shall apply to all employees including those engaged in operations away from the project site. Subcontractor's Workers' Compensation coverage shall also cover Corporate Officers. The Subcontractor will furnish proof of insurance required under this Article 5 in accordance with the Contractor's "Certificate of Insurance" attached hereto as Attachment "B". The Subcontractor's Comprehensive General Liability, Automobile Liability and Employer's Liability shall be written with limits of liability not less than those required of the Contractor under its Contract with the Customer, or as listed below, whichever is greater. The Contractor has the right to withhold all payments under this Subcontract until receipt of the Subcontractor's Certificate of Insurance, fully executed by the Subcontractor's insurance company showing compliance with the provisions of this Article 5.

General Liability: \$1,000,000 Each Occurrence

\$2,000,000 General Aggregate - Per Project \$1,000,000 Combined Single Limit - Bodily Injury and Property Automobile Liability:

Damage Statutory Workers' Compensation: Employer's Liability:

\$1,000,000 Each Accident \$1,000,000 Disease - Policy Limit \$1,000,000 Disease - Each Employee

All of Subcontractor's insurance policies shall contain a provision that the coverage afforded thereunder shall not be canceled or not renewed, nor restrictive modifications added, until at least thirty (30) days prior written notice has been given to the Contractor. The Subcontractor waives all rights of recovery against the Contractor, Customer and such other parties as are required by the Contract Documents, for losses within the scope of Subcontractor's insurance.

EXHIBIT C

- 6. In the event the Subcontractor delays in the performance of any of the provisions of this Agreement, or becomes bankrupt or insolvent, the Contractor shall have the right to cancel this Agreement upon three (3) days written notice mailed or delivered to Subcontractor at its last known address.
- All diagrams, data, manuals, information or samples, which are called for in the specifications, or which are reasonably necessary for the 7. proper completion of this Agreement are to be furnished promptly by the Subcontractor in the quantity requested. This Subcontract shall not be deemed completed and retainage will not be released until all operating manuals, test reports and other documents required herein are furnished and approved.
- 8. Subcontractor shall provide a sufficient number of skilled personnel to maintain the progress required by Contractor. All personnel used and employment terms engaged in by Subcontractor shall be acceptable to the Contractor and will be such as will not cause nor, in the judgment of the Contractor, threaten to cause the disruption of operations of the Contractor, Customer or any other laborer, materialman, supplier, subcontractor or general contractor.
- Invoices shall be accompanied by or be on a properly completed "Subcontract Requisition" form to be provided to Subcontractor by the 9. Contractor. A 10% retention will be withheld until the date of completion.
- 10. Changes, extra work or deductions may be ordered in the work, and the agreed price adjusted accordingly. No such modification shall be undertaken without prior written authorization by Contractor. In the event that Subcontractor proceeds without such written authorization, it shall be deemed a waiver by Subcontractor of all claims for additional payment thereof.
- Subcontractor shall comply with all federal, state, local and other laws, regulations and other such instruments pertaining to the project. 11. You are encouraged to employ minority workers in your labor forces and minority businesses in your procurement activities, and you shall not discriminate in employment or procurement because of age, sex, race, creed, disability, color or national origin.
- The Subcontractor is responsible for the safety and health of its personnel at all times. The Subcontractor shall not permit its personnel, in 12. the performance of this Agreement, to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to their safety or health. The Subcontractor shall perform its operations under this Subcontract in accordance with the Contractors "Manual of Uniform Rules, Regulations and Safety Requirements for Subcontractors Performing Work" and "Fitness for Duty Policy".
- Subcontractor agrees to perform its work under this Agreement in accordance with a schedule to be provided by the Contractor, which 13. schedule may be subject to change as working conditions require. The performance of the work by the Subcontractor in accordance with such schedule is of the essence under this Agreement. Unless expressly modified or limited in this Agreement, the parties agree that all representations, warranties, covenants and other obligations of Subcontractor shall survive the execution, performance, default and/or termination hereof and shall continue thereafter and maybe even be enforced by Contractor or Customer.
- All documents and other material generated by Subcontractor pursuant to this Agreement shall be considered, to the extent allowed by law, as "works 14 made for hiring" for Contractor (as defined under U.S. Copyright Law, as amended) and Contractor shall be deemed the sole and exclusive owner of all right, title and interest therein, including, without limitation, any and all copyright and other proprietary rights relating thereto whatsoever. In the event that any documents or other material does not qualify as a "work made for hire," Subcontractor hereby assigns to Contractor for no additional consideration, all rights, title and interest in and to such documents and/or other materials. It agrees to cooperate with and assist Contractor in applying for and executing any applications and/or assignments reasonably necessary to obtain a patent or copyright thereon.
- Subcontractor shall comply with the EEO Clause in Section 202 of Executive Order 11246 as amended, 41 CFR 60-250 and 41 CFR 60-15. 741, as amended, which are incorporated herein by specific reference.

SUBCONTRACTOR	MECHANICAL CONTRACTOR
Accepted By:	Ву:
Name:	Name:
Title:	Title:
Date:	Dato

Project Name: Owner Name: Subcontract Agreement No.: Subcontract Date:

EXHIBIT D

ATTACHMENT A

Subcontractor shall provide all required materials, labor, equipment, tools, supervision, etc., necessary to perform all start-up, commissioning, and training demonstration for the in strict accordance with the Contract Documents inclusive of, but not necessarily limited to:

A.	Provide the services of a competent factory trained Engineer or authorized representative of the manufacturer to instruct the Owner, inspect, adjust and place in proper operating condition the
В.	Assist and supervise the Contractor in the formal commissioning of the during overall HVAC systems commissioning.
C.	Submit to the Contractor a written report summarizing the results of the commissioning and performance of the

MECHANICAL CONTRACTORS NOTE:

THIS IS A SAMPLE SCOPE.

MECHANICAL CONTRACTORS MUST REFER TO INDIVIDUAL SPECIFICATION SECTIONS AND/OR JOBSITE REQUIREMENTS FOR EXACT START-UP, TRAINING, DEMONSTRATION AND/OR COMMISSIONING SCOPE REQUIREMENTS FOR EACH PRODUCT PURCHASED.

EXHIBIT E MECHANICAL CONTRACTORS Certificate of Insurance START UP AND TRAINING SUBCONTRACTS - ONLY

Attachment B

This verification of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies below. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all terms, exclusions, and conditions of such policies.

Subject to all terms, exclusions, and containers of such policies.									
Name and Address of Agency:					Companies Affording Coverages	Companies Affording Coverages:			
					Company Letter A:				
Phone Number: ()					Company Letter B:				
Name	and Address of Insured:				Company Letter C:				
					Company Letter D:				
					Company Letter E:				
	Number: ()	n tha fact the	at nalisias af inc	uranaa and/ar a	endorsements required to effect the coverages herein stipul	latad ara in			
	this time through the policy period as noted.	n the fact tha	at policies of ins	surance and/or e		lated, are in			
Co.		Policy	Policy	Policy	Limits of Liability in Thousands Each				
Ltr.	Types of Insurance	Number	Inception	Expiration	Occurrence A	ggregate			
	General Liability				Comprehensive	¢2 000 000			
	X Commercial General					\$2,000,000			
	X Occurrence					\$2,000,000			
	X Comprehensive Form					\$2,000,000			
	X Premises-Operations				Personal Injury Commercial	\$1,000,000			
	X Explosion/Collapse				Conoral Aggregation	¢2 000 000			
	X Undersold	9		T		\$2,000,000			
	X Pro vets/Completed					\$2,000,000			
	X Contracture (Any Contract)		P_ T	4		\$1,000,000			
	X Broad Form Property Damage					\$1,000,000			
	X Independent Contractors				Fire Damage	\$50,000			
	X Personal Injury				Medical Expense	\$5,000			
	Automobile Liability				Combined Single Limit	\$1,000,000			
	X All Owned Autos				Bodily Injury (Per Person)				
	X Hired Autos				Bodily Injury (Per Accident)				
	X Non-Owned Autos				Property Damage				
	Worker's Compensation				Statutory				
	Employer's Liability				<u>\$1,000,000</u> (Each Accident)				
					\$1,000,000 (Disease-Policy Limit)			
					\$1,000,000 (Disease-Each Emplo	oyee)			
•	Other:								
Referen	ced Project/State:	•							
other enti the Additi basis. The have all p	ties so required by contract are added as Additional Insu onal Insureds, including, but not limited to: liability of the e insurance of the Contractor and all other Additional Ins olicies endorsed to provide waivers of subrogation in fa	reds with respe e Additional Insureds will not be vor of Contracto	ct to "any" liability of sureds for the gene e called upon to color and all other Add	of the Additional Insu- eral supervision of su- ntribute to any claims litional Insureds. Ad	al Contractor, its officers, agents, employees, volunteers, engineers and C preds arising out of or resulting from Subcontractor's or Vendor's operations uch operations. The Subcontractor's insurance shall apply on a primary no s covered by the Subcontractor's policies referenced in the certificate. Subciditionally, Workers Compensation Waivers of Subrogation and Waivers of policy shall be endorsed to provide that the general aggregate is applied or	s performed for on-contributory contractor shall Statutory Lien			
	and Address of Certificate Holder:		CANCELLAT		ne policies of insurance described above have been amend				
THE MECHANICAL CONTRACTOR STREET ADDRESS			endorsement so that the policies cannot be canceled nor may restrictive modifications be added without giving thirty days prior written notice to the Certificate holder name to the left.						
								CITY, STATE ZIP CODE	
			Date Issued:						
Signature of Insurer's Authorized Representative									