

CHEVRON U.S.A. INC.
MANUFACTURING DEPARTMENT
EL PASO, TEXAS

SPECIFICATION NO. EP-521-N
OCTOBER 11, 1983
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SPECIFICATION NO. EP-521-N
CONTRACT INSULATION MAINTENANCE AND CONSTRUCTION WORK
EL PASO REFINERY

1.0 SCOPE

- * 1.1 This Specification covers the furnishing of personnel, tools, equipment and materials as requested by COMPANY required for removal and/or encapsulation of existing insulation containing asbestos materials or Refractory Ceramic Fiber (RCF) insulation and for insulating vessels, heat exchangers, and piping, using asbestos-free insulation materials such as; calcium silicate, mineral wool, or fiberglass. The exact location, design and extent of each unit of work to be performed by CONTRACTOR shall be as authorized and requested by COMPANY.

This Specification supplements the Contract Terms and Conditions, Form GO-279 (OS-9-86). In the event any discrepancy is deemed to exist between this document and said Terms and Conditions, the provisions of the latter shall be controlling.

- * 1.2 Any fixed price work that is assigned and defined to the CONTRACTOR will be in writing. The exact location, design and extent of each unit of fixed price work to be performed by CONTRACTOR shall be as authorized and requested by COMPANY on an "Authorization to Perform Work" (APW), Form MFG-2649X.

2.0 GENERAL

- * 2.1 CONTRACTOR will abide by the rules and regulations as set forth in Addendum No. 1, dated February 1985 and entitled "Additional Provisions for the Performance of Work", Pages A1 through A17 and Appendices BI and BII. Addendum No. 1 supplements the Contract Terms and Conditions, Form GO-279 (OS-9-86).
- 2.2 CONTRACTOR will abide by the rules in Section 20A of Refinery Instruction RI-9900, entitled "Safety and Health Hazards - Restricted Areas", attached hereto, which is part of this contract agreement.
- 2.3 One or more Company Representatives will be assigned to administer the details of the contract and to assign daily work priorities for a given area within the refinery.
 - 2.31 It is the COMPANY'S intent that the CONTRACTOR retain his independent status at all times, regardless of job assignment or work priority, by maintaining complete control over his personnel and operation.
- 2.4 Daily work priorities, manpower requirements, scheduling, and/or additional instruction to CONTRACTOR will be conducted orally between the Company and Contractor Representatives unless the situation, as determined by either or both parties, dictates the need for written authorization, as follows:

* Revised 6/90 (HLL)

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- 2.41 Any work definition, manpower requirement, schedule, or additional instruction to CONTRACTOR that does constitute a contract change must be transmitted on a "Change", Form GO-283. Example: A "Change" would be required for the COMPANY to authorize an increase in the rental rate of CONTRACTOR vehicles being used.
- * 2.5 COMPANY will provide, without charge, reasonable quantities of fresh water, utility air and electricity at existing locations in field. Connections and extensions from this point to CONTRACTOR'S work areas shall be provided and installed by CONTRACTOR.
- 2.6 COMPANY reserves the right to award all or any part of the work to others as COMPANY may elect.
- 2.7 CONTRACTOR agrees that any and all information which it acquires pertaining to the design, construction, maintenance, or operation of any facilities owned by or in the custody of COMPANY, will be kept confidential and will not be disclosed to others, duplicated, or used for any purpose other than CONTRACTOR'S performance under this agreement.
- 3.0 PERFORMANCE OF WORK
- * 3.1 Compliance with Laws and Regulations: CONTRACTOR shall comply with all laws, regulations, decrees, codes, ordinances, resolutions, and other acts of any governmental authority which are applicable to this Agreement, equipment and materials furnished and CONTRACTOR'S performance hereunder.
- * 3.11 Asbestos Standards and Regulations: Since the work involves the potential for exposure to asbestos, CONTRACTOR'S work shall be performed in accordance with the following two standards in addition to all other applicable Federal, State and local regulations, codes, laws and ordinances:
1. Federal OSHA Construction Asbestos Standard 29 CFR 1926.58 (Most Current Edition).
 2. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants-Asbestos (Most Current Edition)
- In case of conflict, the most stringent shall apply.
- * 3.2 Job Site Inspection: CONTRACTOR shall permit inspection of job site by authorized Federal, State and municipal officials at any time to check on compliance with the above laws, codes, ordinances and regulations.
- 3.3 CONTRACTOR is completely responsible for the quality control of all his work. Workmanship shall be of the highest quality. COMPANY may spot check from time to time as determined necessary by COMPANY.

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All defective workmanship shall be corrected whenever discovered at CONTRACTOR'S cost. Omission or failure by the COMPANY to condemn same at time of its installation shall not relieve the CONTRACTOR of his duty of correction of the same to correspond with these specifications.

* 4.0 DETAILS OF THE WORK

4.1 Asbestos and RCF Insulation Work

4.11 COMPANY'S Specification IRM-MS-4776 entitled "Removal or Renovation of Asbestos - Containing Materials" and Refinery Instruction No. 1410 entitled "Handling Refinery Insulation", attached hereto, are part of this contract agreement. These attachments outline the requirements of the Refinery to comply with OSHA, EPA and COMPANY'S Corporation guidelines regarding the handling of refinery insulation including asbestos or RCF insulation. Omission of applicable Federal, State or City requirements in these documents shall not relieve the CONTRACTOR of his responsibilities to adhere to these requirements.

4.12 Regulations: Full compliance with the Federal OSHA Construction Asbestos Standard (29 CFR 1926.58) and all other applicable regulations is a condition of this contract agreement.

4.13 Certifications:

4.131 The CONTRACTOR shall furnish COMPANY'S Safety Engineer with proof of licenses, registrations, certifications, permits, insurance, bonds, etc., which may be required by any federal, state, or local regulatory agencies governing asbestos contractors.

4.132 The CONTRACTOR shall certify that CONTRACTOR employees have received appropriate training on asbestos within the last year as outlined in the Standard.

4.133 The CONTRACTOR shall certify that CONTRACTOR employees meeting the exposure criteria in Section 1926.58(m)(1)(i) of the Standard are included in an annual medical surveillance program administered by CONTRACTOR.

4.134 Respiratory Protection: The following controls are required for the use of respirators:

1. Doctor's opinion stating that the employee can physically wear respirators.
2. Training certification on the respirators to be worn.
3. Respirator Fit Test Date - to be supplied at least annually.

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- 4.135 Proof of the certifications, licenses, permits, etc., referenced in Sections 4.131, 4.132, 4.133 and 4.134 above shall be provided by CONTRACTOR to COMPANY'S Safety Engineer prior to start of work and when any changes occur, such as an annual registration or training certification renewal, addition of new employee that has received the appropriate training and/or is included in an annual medical surveillance program.
- 4.14 CONTRACTOR Supervision: CONTRACTOR shall furnish a supervisor which meets the Federal OSHA requirements (29 CFR 1926.58) of a "competent person" to represent CONTRACTOR and be present at each asbestos-related job. This supervisor's duties include, but are not limited to, the following:
- 4.141 Establishing negative pressure enclosure(s), glove bags(s), or other feasible methods of control for work site isolation.
- 4.142 Controlling entry to and exit from OSHA "regulated areas".
- 4.143 Ensuring that all employees working within OSHA "regulated areas" use the hygiene facilities and follow decontamination procedures.
- 4.15 Monitoring and Record Keeping: CONTRACTOR shall conduct initial daily exposure monitoring for all work performed which may result in personnel exposure to asbestos. Exposure monitoring shall meet the requirements set forth in the Federal OSHA Construction Asbestos Standard (29 CFR 1926.58). CONTRACTOR shall retain records from any exposure, monitoring. CONTRACTOR shall furnish to COMPANY'S Safety Engineer copies of the monitoring results which shall include the following additional information (print in ink or type):
1. Name of CONTRACTOR employees doing the work.
 2. Job Number (COMPANY'S six digit Work Requisition No.)
 3. List of Protective Work Clothing worn by CONTRACTOR employees.
 4. Type of Respirator worn by CONTRACTOR employees.
- 4.16 Regulated Area: The CONTRACTOR shall establish "regulated areas" and meet the applicable requirements as outlined in Section 1926.58(e) of the Standard.

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The CONTRACTOR shall use warning signs to alert COMPANY and CONTRACTOR employees and others of the potential for asbestos exposure as required in the Standard and in a manner acceptable to the COMPANY. The signs must read:

**DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
REQUIRED IN THIS AREA**

4.17 Handling: Asbestos shall be handled according to the Federal OSHA Construction Asbestos Standard (29 CFR 1926.58). In conjunction with or in addition to the Federal OSHA requirements, the COMPANY requires the following:

- 4.171 Asbestos waste, scrap, debris or other contaminated materials shall be immediately placed in impermeable plastic bags and sealed. The bags must be properly labeled "DANGER ASBESTOS".
- 4.172 All asbestos waste shall be double bagged prior to placement for disposal.
- 4.173 Asbestos waste removed from vessels, pipes, etc., at elevated locations shall be placed in double bags which are sealed and labeled before lowering to ground level.
- 4.174 At the end of each work day the bags containing asbestos wastes shall be manifested, transported and placed directly into COMPANY-provided roll-off container(s) used exclusively for this purpose. No asbestos waste shall be introduced into any trash container, dumpster box or transport vehicle except for the special roll-off container marked "ASBESTOS DUMPSTER" located at the Refinery Asbestos Waste Disposal Site.

On a large asbestos removal job, a roll-off container may be located near the job site for disposal of the bags containing asbestos waste. This container must be marked "ASBESTOS DUMPSTER."

- 4.1741 When the asbestos dumpster containers are full, COMPANY will make all arrangements with the container contractor and City Sanitation, including obtaining necessary permits for transportation and disposal of the asbestos waste. CONTRACTOR shall furnish labor for the hand unloading of the containers at the disposal site.

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- 4.175 When covering existing asbestos with a new weather jacket, the words "DANGER ASBESTOS" shall be clearly stenciled in purple paint every ten (10) feet on pipe runs and every fifty (50) square feet of surface on equipment.

Insulation which contains RCF fibers will be stenciled "CAUTION CONTAINS RCF FIBERS". Stencil locations will be the same as above. Furnaces will be stenciled at all locations where entry is possible.

- 4.18 Decontamination Procedures: Decontamination of workers shall be done in accordance with the Federal OSHA Construction Asbestos Standard (29 CFR 1926.58).

4.2 Asbestos - Free Insulation Work

- 4.21 COMPANY'S Specification IRM-MS-1381-J entitled "Thermal Insulation for Hot Lines, Vessels, and Equipment" and Drawings GD-N99783 "Standard Insulation for Hot Piping", GD-N99785 "Standard Insulation for Hot Vessels, Heat Exchangers and Hot Equipment," and GD-N99993 "Standard Insulation Item Numbers" attached hereto, are part of this contract agreement.

- 4.211 Materials: Drawing No. GD-N99993 shows materials acceptable to COMPANY. Other equivalent materials may be used only with the written approval of COMPANY.

4.2111 Materials shall be used only within the temperature limits specified in Drawing No. GD-N99993. Glass fiber materials shall not be used on equipment with metal temperatures greater than 350°F, nor on traced lines where tracing temperature exceeds 350°F.

4.2112 Aluminum weatherjacket shall have a corrosion/moisture barrier of 40-pound Kraft paper and 1 mil polyethylene (Childers or Premetco process, unless otherwise specified). Temper shall be 3/4 hard and copper content shall not exceed 0.40 weight %.

4.2113 Weather jacket attachment fixtures shall be Type 304 stainless steel, except that sheet metal screws and pop rivets may be aluminum (0.40% maximum copper). Pop rivets shall be of the type where the mandrel is retained after setting.

4.2114 Mastic weathercoating shall be used only where metal weatherjacketing is not feasible and within the limitations of Section 3.5 of Specification IRM-MS-1381-J and Sub-Section 4.2124 below.

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4.212 General Requirements:

- 4.2121 All surfaces to be insulated shall be clean and dry.
- 4.2122 When the metal temperature is over 650°F, double-layer insulation shall be used, except on piping one and one-half (1 1/2) inch and smaller. Regardless of temperature, for insulation thickness greater than three (3) inches, double-layer insulation shall be used. Insulating material used for both layers shall be capable of withstanding the maximum metal temperature. Joints in double-layer insulation shall be staggered.
- 4.2123 Weatherjacketing shall prevent entry of liquid water into the insulation under all normal weather conditions. The following are examples of unacceptable weatherjacketing techniques; upward-facing overlaps in aluminum weather jacket which collect rather than shed water run-off, unsealed or unflashed gaps where weather jacket is penetrated by structural members or nozzles, and lack of weathertight end-seals where the pipe insulation terminates.
- 4.2124 Aluminum sheet shall be used for weather jacket, except as follows:
 - 4.21241 Mastic weathercoat may be used on surfaces of complex shapes, where not prohibited by Section 4.21242 below. It shall be used only on calcium silicate, perlite and cellular glass insulation and where the surface temperature of the insulation will not exceed 180°F. Emulsion-type weathercoating shall not be applied when atmospheric precipitation or condensation may wet the finished surface within 24 hours after application.
 - 4.21242 Within twenty-five (25) feet of furnaces, weather jacket shall be fire-resistant and insulation shall be calcium silicate, perlite or cellular glass. Weather jacket on piping and equipment shall be stainless steel, galvanized steel, or coated steel, rather than aluminum. Weather jacket shall be secured with Type 304 stainless steel straps and attachment fixtures. Flammable weathercoating shall not be used. COMPANY will specify where these fire-resistant weather jackets are required for other equipment.

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- 4.2125 Insulation shall be fitted around all flanged connections to allow room for bolt removal without damaging insulation.
- 4.213 Piping: Piping shall be insulated in accordance with Drawing No. GD-N99783. Lines 36 inches in diameter and over shall be insulated as a vessel.
- 4.2131 Insulation shall be calcium silicate, expanded perlite, or cellular glass preformed pipe insulation. Mineral wool and fiberglass insulation shall be used only when specified by COMPANY.
- 4.2132 Insulation, 12 inches OD and less, shall be secured with 16-gage galvanized wire. Larger diameters shall have 14-gage wire. On double-layer insulation where insulation diameter exceeds 14 inches, the outer layer shall be secured with 1/2 inch x 0.015-inch stainless steel straps instead of wire. Regardless of diameter, cellular glass insulation shall be secured with straps.
- Insulation shall be secured on 9-inch centers.
- 4.2133 Longitudinal joints of single-layer insulation and longitudinal and circumferential joints of double-layer insulation shall be staggered.
- 4.2134 Insulation on vertical piping shall have ring supports (Detail 3, Drawing No. GD-N99783) installed at the bottom of the pipe run and above interruptions in the pipe run such as at flanges and valves. Maximum spacing shall be per Section 4.2.5 of Specification IRM-MS-1381-J.
- Support rings are not required for vertical rises less than six feet when measured from the bottom of a pipe run or from a support at an interruption.
- 4.2135 Expansion Joints: Expansion Joints (Detail 5, Drawing No. GD-N99783) shall be provided at the tangent points of elbows when the pipe temperature exceeds 425°F and at the spacing between tangent points as shown in Section 4.2.6 of Specification IRM-MS-1381-J.
- 4.2136 Use end caps (Detail 6, Drawing No. GD-N99783) wherever insulation terminates.
- 4.2137 Insulation for Traced Lines: Traced lines shall be insulated with oversize insulation capable of

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withstanding maximum tracing temperature as well as stock temperature.

4.21371 Tracer shields shall be used in all cases. Shields shall be constructed of 28-gage sheet steel and be secured with 14-gage wire on 12-inch centers. Shields are not required within two feet of a flange or fitting.

4.214 Vessels, Columns, and Heat Exchangers: Block insulation shall be applied in accordance with Drawing No. GD-N99785.

4.2141 Heat exchanger shells less than 36 inches in diameter shall be insulated in the same manner as piping. All other vessels, columns and heat exchangers shall be insulated according to Sections 5.2 and 5.3 of Specification IRM-MS-1381-J.

4.2142 Calcium silicate, perlite, or cellular glass block insulation shall be used for the top heads of vertical vessels and for the upper one-third of the circumference of horizontal vessels, to support foot traffic.

4.2143 Block insulation shall be secured with 3/4-inch x 0.020 inch stainless steel straps on 12-inch centers. Each strap shall have one buckle per connection.

4.2144 Vessel heads shall be insulated per Details 3 and 4 on Drawing No. GD-N99785.

4.2145 Nameplates and weep holes on reinforcing pads shall not be covered.

4.2146 Aluminum weather jacket shall have a thickness of 0.024 inch. Stainless steel and galvanized steel sheeting shall be 0.010-inch thick. The shells of vertical equipment shall be weatherjacketed with 1 1/4-inch pitch corrugated sheet. The shells of horizontal equipment shall use 3/16-inch cross-crimped sheets. All weather jacket for exposed heads shall use flat sheet.

4.2147 Weather jacket shall be secured with 3/4-inch x 0.020-inch stainless steel straps on 18-inch maximum centers.

4.2148 Each section of a double pipe exchanger shall be insulated as a single unit. Continuous insulation around a multi-sectional unit is permissible only with written approval by the COMPANY.

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5.0 SUB-CONTRACT WORK

- 5.1 CONTRACTOR shall not sublet any work without first obtaining COMPANY'S approval in writing and the cost basis of such sub-contract work shall be as agreed to by both COMPANY and CONTRACTOR prior to the start of the sub-contract work.

6.0 ITEMS TO BE FURNISHED BY CONTRACTOR

6.1 Labor, Tools and Equipment

- * 6.11 CONTRACTOR shall provide all labor, tools and equipment, of whatever kinds, for complete performance of the most routine units of work that CONTRACTOR has been authorized by COMPANY to perform as referred to in Sub-Section 1.1. above. This includes, but is not limited to, mechanic tools basic to the mechanic's craft as outlined in, but not limited to, Appendix A.

- * 6.111 Flame-Resistant Work Clothing - CONTRACTOR employees including those of its subcontractors will be required to wear flame-resistant work clothing for all work within the Refinery. Flame resistant work clothing refers to garments manufactured from aramid fibre cloth and sold under a number of trade names; Nomex-III, Proban, PBI, etc.

CONTRACTOR and its subcontractors shall furnish flame-resistant work clothing for their employees and shall be responsible for cleaning of the flame-resistant clothing.

- * 6.112 CONTRACTOR shall furnish the following items for handling of materials containing asbestos or RCF fibers:
- (a) Portable trailer type hygiene facility (to include change rooms, showers and break and lunch room.)
 - (b) HEPA Vacuum Cleaners
 - (c) Aircheck samplers (battery operated)
 - (d) "Amended Water" Wetting Agent
 - (e) Airless Sprayer for applying wetting agent
 - (f) Sealant for encapsulating asbestos edges left after removal
 - (g) Tools for removing insulation
 - (h) Appropriate eye protection

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- 6.12 CONTRACTOR shall furnish pickup trucks as authorized by COMPANY as necessary for complete performance of the most routine units of work.
- 6.13 At times, CONTRACTOR may be requested by COMPANY to furnish and erect scaffolding. Scaffolding must meet OSHA requirements. All scaffolding erected by CONTRACTOR will be inspected and approved by COMPANY before work shall commence.

7.0 ITEMS TO BE FURNISHED BY COMPANY

- * 7.1 COMPANY shall furnish the following items for CONTRACTOR'S handling of materials containing asbestos or RCF fibers: NOTE - Any COMPANY furnished equipment that is lost or damaged will be replaced at CONTRACTOR'S cost.
 - (a) Half face respirators with HEPA filters and full face respirators.
 - (b) Fresh Air Equipment
 - (c) Glove Bags
 - (d) Bags
 - (e) Rope for roping off work area
 - (f) "Danger Asbestos" and Danger RCF" Warning Signs and Labels
 - (g) Plastic (6 mil) and Lumber for the enclosure area around the removal site.
 - (h) Stencils and paint for marking insulation and equipment either "Asbestos and RCF Free", "Caution Contains Asbestos Fibers" or "Caution Contains RCF Fibers".
- 7.2 Materials
 - 7.21 Generally, the COMPANY will furnish and deliver all items of material required by the CONTRACTOR. CONTRACTOR shall use COMPANY Purchasing Department Form GO-111, "Materials Requisition", to order material from Refinery Storehouse stock, or if the material is not a stock item, from an outside supplier. The GO-111 must be signed by the Company Representative before the material is delivered or, if necessary, picked up by the CONTRACTOR at the Storehouse or other designated location. CONTRACTOR shall use the refinery delivery system.
 - * 7.22 Occasionally, the COMPANY will authorize the CONTRACTOR to furnish material not available from Refinery Storehouse stock. This material must be supported by invoice when CONTRACTOR'S bill is submitted to COMPANY for payment as outlined in Exhibit I, Section 3.0.

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- * 7.221 Exhibit I, Section 3.0, applies only to work being done on a time and material basis.

The CONTRACTOR is completely responsible for all materials, if work is being done on a fixed price basis, except those specified in writing to be supplied by COMPANY on an approved APW.

8.0 CONTRACT PRICE

- * 8.1 COMPANY shall compensate CONTRACTOR for Labor, Equipment, Materials and etc. in accordance with the latest approved revision of the Compensation Schedule, Exhibit I.

In the event of any increase or decrease in any labor rate or equipment rate prior to the termination of this contract, CONTRACTOR shall notify COMPANY in a timely fashion of the changes by submitting new rate proposals, in writing, for approval. Acceptance by COMPANY may be in whole or in part, and single labor rates or equipment rates, as well as the entire proposal, may be subject to negotiation and compromise prior to acceptance of a modification to contract by COMPANY. No change will be considered approved until a duly authorized contract Change (Form GO-283) is processed. It is the COMPANY'S intent that all CONTRACTOR equipment rates and labor rates not affected by union trade agreements be competitively bid for the duration of the contract and not subject to negotiation unless there are unusual circumstances.

9.0 ACCOUNTING OF CONTRACT COSTS

- * 9.1 For time and material work the CONTRACTOR shall keep an accounting of all labor, equipment and material furnished by CONTRACTOR and shall prepare and render by the end of each shift to Company Representative a report using COMPANY'S Time and Material Daily Report, Form MFG-1638-8. Time and Material Daily Reports not submitted for approval at the end of the shift on which the work was performed must be approved by the Superintendent-Maintenance.

CONTRACTOR shall retain the white and yellow copies of each Time and Material Daily Report and furnish Company Representative with green and pink copies after Company's and Contractor's Representatives have each signed the Time and Material Daily Report, acknowledging that it is correct. These Time and Material Daily Reports shall be used as a basis for computing the total contract price. When submitting invoices for the work, CONTRACTOR shall furnish one (1) copy of the invoice and attach the yellow copy of each Time and Material Daily Report pertaining thereto.

CONTRACTOR shall include with its invoices a copy of all third-party receipts for subcontractor costs, rentals, materials and other costs not specifically mentioned herein.

- 9.11 If a fixed price is specified on an APW, 9.1 above does not apply.

* Revised 6/90 (HLL)

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9.2 Invoicing Instructions

- * 9.21 For time and material work the CONTRACTOR shall, for COMPANY'S accounting purposes, furnish invoices in accordance with Paragraph 2.41 of the Contract Terms and Conditions, Form GO-279 (OS-9-86). All entries on the invoices must be supported by Time and Material Daily Reports and/or Purchased Material List signed by a Company Representative. Invoices are to show a breakdown of each job by actual hours worked, materials, supplies and equipment used, with unit costs, and with the correct refinery charge numbers. Labor, equipment rental, material and total invoices shall be as follows:

9.211 Labor invoices shall indicate date, refinery charge number, labor classification, hours worked, rate per hour, total charge for each labor classification and total labor charge.

9.212 Equipment rental invoices shall indicate date, refinery charge number, equipment classification, hours used if hourly rate or length of time used if flat rate, rate per hour or flat rate, total charge for each equipment classification and total equipment charges. When rental equipment is furnished for a flat rate, and the flat rate includes equipment rental with operator, invoices will so state.

9.213 Material invoices shall indicate date, refinery charge number, name of supplier, supplier's invoice number, material classification, total charge for each material classification, total handling fee if applicable, and total material charge.

- * 9.214 The total invoice or recap must separately indicate the total labor charge, total equipment rental charge, total material charge and total freight charge.

This applies to invoices for both time and material and fixed price work except for fixed price new construction projects, (8xxx and 9xxx projects) to improve real property.

Invoices submitted on fixed price new construction projects to improve real property shall be in accordance with the price agreed upon (Do not list charges separately).

- * 9.215 Invoices should not include sales tax. COMPANY'S Direct Payment Exemption Certificate, attached hereto, is part of this Agreement.

COMPANY'S Direct Payment Exemption Certificate is valid for purchases of taxable materials on time and material and all fixed price APW work. However, it is not valid for fixed price new construction projects (8xxx and 9xxx projects) to improve real property.

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- * 9.22 If a fixed price is specified on an APW, invoices submitted shall be in accordance with the price agreed upon. No change will be considered approved unless an authorized subsequent APW is processed with an explanation of the change and the agreed to compensation adjustment.
- * 9.23 All invoices shall be sent to:

Chevron U.S.A. Inc.
Invoice Desk, Refinery Accounting
P. O. Box 20002
El Paso, TX 79998

10.0 INFORMATIVES

- 10.1 The following blank COMPANY forms, instructions, specifications and drawings are included with this Specification for CONTRACTOR'S information:

- 10.11 Authorization to Perform Work, (APW) Form MFG-2649X.

- 10.12 Contract Change, Form GO-283.

- 10.13 Time and Material Daily Report, Form MFG-1638-8.

- 10.14 Refinery Instructions:

- RI-1410 "Handling Refinery Insulation"

- RI-9900, Section 20A "Safety and Health Hazards-Restricted Areas"

- * 10.15 Specifications:

- IRM-MS-4776 "Removal or Renovation of Asbestos - Containing Materials"

- IRM-MS-1381-J "Thermal Insulation for Hot Lines, Vessels, and Equipment"

- * 10.16 Standard Drawings:

- GD-N99783 "Standard Insulation for Hot Piping"

- GD-N99785 "Standard Insulation for Hot Vessels, Heat Exchangers and Hot Equipment"

- GD-N99993 "Standard Insulation Item Numbers"


Superintendent-Maintenance

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SMALL TOOLS AND EXPENDABLE SUPPLIES

The following includes, but is not limited to, a representative list of small tools and expendable supplies which the CONTRACTOR is expected to supply to/for his employees so that they can perform all normally assigned jobs in their respective crafts. The cost of these small tools and expendable supplies is to be included in CONTRACTOR'S hourly rates.

BANDERS

BANDS, Safety Hat, Sweat
BATTERIES, Dry Cell, Flashlight
BOOTS, Rubber
BOXES, Small Tool, Gang
BROOMS, Hand
BRUSHES, Wire
BUCKETS

CANVAS BAG

COOLER, Water (Ice Type)
CORDS, Extension
COVERALLS, TYVEK (if needed for
wearing under the Flame-Resistant
work clothing)
CUTTERS, Wire

DISPENSERS, Paper Cup
DRINKING CUPS

FACE SHIELDS

FIRST AID KITS and SUPPLIES
FLAME-RESISTANT WORK CLOTHING
FLASHLIGHTS

GLASSES, Safety
GLOVES, Rubber, etc
GOGGLES, Safety, Chemical, etc.

HAMMERS, Hand
HANDTOOLS, Insulators
HARD HATS and LINERS
HATS, Safety, Rain, Liners, Bands
HOES, Mortar Mixing
HOSES, Garden (Water)

KNIVES, Cobblers, etc.

LADDER, Extension, 24 ft.
LADDERS, Step - 6 ft. and 8 ft.

MORTAR BOXES

OFFICE SUPPLIES

PADLOCKS
PENCILS
PLIERS, All Types

RAINCOATS, HATS and BOOTS

SAFETY BELTS

SAFETY EQUIPMENT, Goggles, Hard Hats,
Glasses, Face Shields
SAWS, Hand
SCREWDRIVERS
SNIPS, Tin-Regular and Metal Master

TAPE (to tape coveralls at the wrists and
ankles)

TAPE, DUCT (to seal glove bags)
TAPES, Measuring
TROWELS, Hand-Flat and Pointed

WHEELBARROWS

**Authorization to Perform Work
MFG-2649X**

Contract No. _____ Dated _____ Expiration Date _____

Authorization No. _____, Dated _____

Company _____

Contractor _____

Contractor is hereby authorized to perform the following work in connection with the above designated contract, all applicable provisions of which shall apply to the work herein authorized:

Work is to be completed by _____ (In no case is date to exceed 3 weeks beyond authorization date above)

Company Representative _____ @X- _____ Shop Order No. _____
(Must be filled in before authorization is signed)

Originator _____ @X- _____ Authorized by _____

Above work completed (Date) _____ Signed _____

Remarks _____ Company Representative _____

Change

Contract Number _____

Change Number _____

Date _____

Company _____

Contractor _____

The requirements of the above-designated Contract are changed as follows:

COMPANY and CONTRACTOR agree that the time for completion shall be adjusted as follows: _____

COMPANY and CONTRACTOR agree that CONTRACTOR's compensation shall be adjusted as follows: _____

THIS ADJUSTMENT INCLUDES THE ENTIRE COMPENSATION FOR THE CHANGE SET FORTH ABOVE. This adjustment includes but is not limited to compensation for engineering, material, equipment, subcontracts, labor, overhead, profit, loss, costs, changes in scope and/or sequencing and/or scheduling, additions, deletions, effects on productivity, delays, disruptions, ripple effects, impacts, extra work, quantum meruit, and/or equitable adjustments(s), as well as for further claims for compensation for any of them, resulting directly or indirectly from the Change. ALL PRESENT AND FUTURE CLAIMS AGAINST COMPANY THAT ARE INCIDENTAL TO OR AS A CONSEQUENCE OF THE AFORESAID CHANGE ARE SATISFIED BY THIS ADJUSTMENT.

CONTRACTOR

COMPANY

By _____
Date _____

By _____
Date _____

Work Completed: Signed _____ Date _____

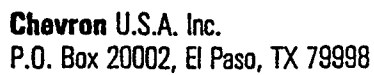
Invoice No. _____ Date _____ Amount _____ Date Rec'd. _____

Charge Account No. _____

Charge Job No. _____

Remarks _____

CHEV
BB 010847



ntractor _____
 ift _____ Day _____ Location _____
 Mo. Day Year
 te

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'W No. _____

[illegible]

Contractor's Representative _____				
Distribution:	White-Contractor	Green-Keypunch	Yellow-Contractor (Submit with Invoice)	Pink-Field Office

CHEV
BB 010848

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