

**CITY OF NORWICH**  
**NORWICH PUBLIC UTILITIES**

**BID # 7290**

**REFURBISH 10<sup>TH</sup> STREET HYDRO STATION BEARING**

Sealed bids for 10<sup>th</sup> STREET HYDRO 34" GH BEARING REPAIR will be received at the Office of the Purchasing Agent at City Hall, 100 Broadway, Norwich, Connecticut 06360 until 2:00 P.M., on Wednesday August 10, 2011 prevailing time, at which time they will be publicly opened and read aloud.

**Bid surety in the form of cash, a certified check or bid bond in the amount of five percent 5% of this bid is required.**

Copies of the Specifications may be obtained at the Purchasing Office at 100 Broadway, Norwich, CT.

**There will be a MANDATORY pre-bid meeting Thursday, August 4<sup>th</sup>, 1:00pm at the project site.**

Norwich Public Utilities reserves the right to reject any or all bids, in whole or in part, to award any item, group of items, or total bid, and to waive any informality in the bids received if it deems it to be in the best interest of the Department to do so.

No Bidder may withdraw their bid within 60 days after the actual date of bid opening thereof. Should there be reason why the contract cannot be awarded within the specific period, this time may be extended by mutual agreement between the City and the designated, qualified low Bidder.

All final awards of the bid subject to comply with Ordinance No. 1235 adopted December 3, 1991.

All bids must be submitted in a sealed envelope bearing the bidders name and bid number.

Responding bidders must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, age, handicap, familial status, sex, or national origin.

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PURCHASING AGENT

NOTE: BIDDERS ARE HEREBY ADVISED THAT ONLY BID SURETIES FOR THE THREE LOWEST BIDDERS WILL BE HELD. ALL OTHERS WILL BE RELEASED WITHIN SEVEN DAYS.

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**A. SCOPE OF WORK**

1. Disassemble, clean and inspect 34" GH Bearing.
2. Rebabbitt and remachine lower shell to print dimensions (464904).
3. The Kingsbury GH bearing design incorporated the upper half of the shell into the upper bearing housing. While reducing the total number of parts, this resulted in the need to handle, machine, and probably transport the entire housing should the upper shell need significant repair. The removal of the upper housing will require crane services to remove one section of roof and the actual removal of the housing from the facility.
4. A proposed modification to include machining of the upper half of the housing to accommodate a separable, babbitted sleeve, sized appropriately, to maintain the original bearing bore and clearance would be entertained. This would provide improved serviceability in the future.
5. Ultrasonic inspection of babbitt bond integrity.
6. Reassemble, inspect and test fit the bearing, perform bearing alignment and bearing loading on the machine.
7. Make in field repairs/adjustments as necessary.

**B. Execution**

1. The methods employed in performing the work and all equipment, tools, and machinery used in handling material and executing any part of the work shall be subject to the approval of the engineer before work is started and whenever found unsatisfactory, shall be changed and improved as required by the engineer. All equipment, tools, and machinery used shall be maintained in a satisfactory working condition.
2. The contractor shall employ a competent superintendent to oversee and direct its employees at all times and to maintain communications between the contractor and the engineer.
3. The contractor shall employ experienced skilled laborers, and equipment operators and perform all work in a safe construction manner in accordance with any applicable OSHA safety regulations.

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**C. Definition of Labor-**

1. Foreman- Person in responsible charge of the site construction work with skill and abilities to interpret plans and specifications, schedules and layout of the work and direct the work force at the job site.
2. Skilled Laborer- Individual who has the skills and abilities equivalent to that of a journeyman for all necessary work to be performed, such as pipefitter, mason, welder, truck driver, equipment operator, etc.
3. Laborer- Operates hand tools and provides assistance for the skilled laborer in all the work needed to be performed at the job site.
4. Help to be Employed- The Contractor shall employ experienced foremen, and other workmen competent in the work in which they are to be engaged. All work shall be accomplished by able, skilled, and competent personnel. The contractor shall submit work history on all employees with their experience in the above-mentioned categories and any licenses that pertain. If any person employed on the work by the Contractor shall appear in the opinion of the City to be incompetent or unreliable in any way that person shall be discharged immediately upon the request of the City and shall not again be employed on the work, unless specifically authorized by the City in writing.

**D. Materials-**

Unless otherwise specified the Contractor warrants that all materials shall be new and of good quality. The Contractor shall, if required by the Owner, furnish samples or other satisfactory evidence as to the kind and quality of materials as directed by the Owner, and all materials thereafter furnished by the Contractor shall be in strict accordance with such approved samples.

**E. Safety and Health Standards-**

Successful bidders must demonstrate compliance with all applicable OSHA standards including without limitations the following standards:

- 29 CFR 1926.650 "Excavations-Scope, application, and definitions"
- 29 CFR 1926.651 "Excavations-Specific Excavation Requirements"
- 29 CFR 1926.652 "Excavations-Requirements for Protective Systems"
- 29 CFR 1926.Subpart P Appendix F - "Selection of Protective Systems"
- 29 CFR 19 10.1200 "Hazard Communication"
- 29 CFR 191 0.146 "Permit Required Confined Spaces"

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To demonstrate compliance, bidders must provide, prior to award of the contract, documentation supporting compliance with the above standards. This includes written company policy and procedure and Documentation of employee training and Equipment lists.

The Contractor is responsible for ensuring OSHA compliance, including supervising and monitoring work site conditions for OSHA compliance. **Contractor is required to follow Norwich Public Utilities Safety Guidelines included with this bid package.**

If the contractor uses subcontractors, the contractor is responsible for ensuring that the subcontractors fulfill their obligations with respect to employee safety, particularly including those, which affect the entire site. The contractor shall have a competent person on the job site when required by the OSHA standard. A Competent person in this context means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. The City shall consider OSHA violations over the past five years in determining the ability of the Contractor to comply with OSHA requirements and in determining whether the contractor is an acceptable bidder.

If there has been an OSHA violation within the past five (5) years (measured from the date of the bid), the contractor shall provide copies of the citation(s), all documents regarding final determination of such citations including settlements or any explanations(s) of such violation(s).

**F. Permits, Licenses and Laws-**

The contractor shall obtain all necessary permits or licenses from the proper authorities and shall give all notices required by law or ordinance, and shall pay all fees and charges incident to the due and lawful prosecution of the work and shall comply with all laws, ordinances and regulations relating thereto.

**G. Time to Complete-**

Time is of the essence with this work. The Contractor shall complete this work as specified within thirty (30) working days of receiving a Notice to Proceed. There will be a charge for liquidated damages of \$250 per day for each calendar day beyond this deadline. Delays caused by events or conditions beyond the Contractor's control will not be factored in to the Time to Complete schedule.

**H. Right To Reject Bids-**

The City of Norwich reserves the right to reject any and all bids to waive any technicalities and to make such awards, including awards not to the lowest bidder, as it deems in its opinion to be the best interest of the City of Norwich, awards made by the City of Norwich shall be final and conclusive and without recourse or appeal by any remaining bidders.

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**I. Representation Of Contractor-**

The contractor represents and warrants that he is financially solvent and that he is experienced and competent to perform the type of work outlined on the specifications and drawings and that he has carefully examined the drawings and specifications along with addendum (or addenda), if any, and the site of the work, and that from its own investigations, he has satisfied himself as to the nature and location of the work, the character, quality and quantity of the surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the work, the general and local conditions and all other materials which may in any way affect the work or its performance and that he is aware of the hazards involved in the work and the danger to life and property both evident and inherent and that he will conduct the work in a careful and safe manner without injury to persons or property. He further warrants that any injury to persons or property resulting from the work shall be the sole responsibility of the contractor.

**J. Contractor's Insurance-**

Each Bidder must be able to enter into contract, covering the work, within 10 days from the acceptance of its proposal. The successful bidder must, within 10 days from the date of acceptance of its proposal, file with the City, Workmen's Compensation, Comprehensive General Liability, Comprehensive Auto Liability, Certificates of Insurance satisfactory to the City, in compliance with the law, and in the following form and amount:

Comprehensive General Liability  
Premises - Operations - Products/Completed Operations  
General Aggregate \$2,000,000.00  
Occurrence \$1,000,000.00  
Comprehensive Automobile Liability  
Combined Single Limit \$1,000,000.00  
Workmen's Compensation Statutory  
Employer's Liability \$100,000.00  
Fire and Special Extended Coverage in Builder's Risk policy in the amount of  
100% of insurable completed value

If subcontractors are employed, same limits as named above shall apply and the certificate of insurance must be filed with the City.

No contract shall be binding upon the City of Norwich until such bond shall have been given and until Comprehensive General Liability, Comprehensive General Auto Liability and Workmen's Compensation policy certificates indicated above have been filed with the City and approved as to form and sufficiency by the City.

The insurance certificate policy provided by the successful bidder and all

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subcontractors shall carry a statement by the insurance company that the City of Norwich will receive at least ten (10) days prior to cancellation of any portion of the policies or any modifications in the insurance coverage that may affect the City's interest. The cost of all insurance coverage shall be included in the price of the contract cost.

The insurance company must be licensed to do business in the State of Connecticut and must be satisfactory to the City of Norwich. THE CITY OF NORWICH MUST BE NAMED AS ADDITIONAL INSURED.

**K. Payment Schedule-**

Contractor shall submit an invoice for their work under this contract within 30 days of work completion.

**L. Indemnity of City by Contractor-**

The Contractor shall indemnify and save harmless the City against any all damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend, indemnify and save harmless the City from any and all claims, demands, suits, actions or proceedings of any kind or nature including workmen's compensation claims, of or by anyone whomsoever, in any way resulting from or arising out of the operations in connection herewith, including operations of subcontractors insurance coverage specified herein and in any special conditions constitutes the minimum requirements and said requirements shall in no way lessen or limit the liability of contractor under the terms of the contract. The contractor shall procure and maintain, at its own cost and expense, any additional kinds and amounts of insurance, which, in its own judgment may be necessary for its proper protection in the prosecution of the work. The contractor agrees to well and truly save and indemnify and keep harmless, the City against all liability, judgments, costs and expenses which may in any way come against the City or which may in any wise result from carelessness, omission or neglect of the contractor or its agents, employees or workmen in any way arising or resulting from the operation in connection herewith, including all liability to the City resulting from the failure to erect or maintain sufficient railing or fence as required by Section 13a-111, Connecticut General Statutes, and against all liability from defects claimed to be violation of Section 13a-149 Connecticut General Statutes. Any additional cost to this save harmless insurance coverage shall be included in the unit prices of the contract.

**M. Lights, Barriers, Watchmen, And Indemnity-**

The Contractor shall supply and erect and maintain such barriers, danger warning signals, and signs that will prevent accidents during the construction work and protect the work and insure the safety of personnel and the public at all times and places. The Contractor shall indemnify and protect the City in every respect from injury or damage whatsoever caused by

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any act of neglect by the contractor or its subcontractors, or their servants or agents, including any claims arising out of failure to erect and maintain sufficient railing or fence as required by Section 13A-111 Connecticut General Statutes from claims or defect in violation of 12A-14q Connecticut General Statutes.

If the Contractor, in the City's opinion, fails to provide a safe condition at the construction area, then the City may take control of the site and provide needed safety measures at the Contractor's expense.

The fact that the City may retain control of the premises, or that it or its agents may take action to erect or maintain railings or fences shall not relieve the Contractor's obligations hereunder.

The Contractor shall be responsible for excluding at all times from the land within the construction areas, all persons not directly connected with the work.

**N. Fire Precaution & Protection of Waters -**

The contractor shall take adequate precaution against fire; keep flammable material at an absolute minimum; and insure that such material is properly handled and stored.

Pollution of Waters- Special care shall be taken to prevent contamination of the river and canal. No waste matter of any kind will be allowed to discharge into the river or canal.

Interference With Existing Structures- Whenever it may be necessary to cross or interfere with existing structures needing special care, due notice shall be given to the City, and the work shall be done according to City's directions. Whenever required, all structures and utility facilities shall be strengthened to meet any additional stress that the work herein specified may impose upon it, and any damage caused shall be thoroughly repaired. If so directed by the City, the location of any existing structure shall be changed to meet the requirements of the new work per the City's requirements.

**O. Existing Utilities-**

The following utilities exist within the limits of the project, including but not exclusively, the following:

Electric - Norwich Public Utilities (NPU)

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Telephone - AT&T

Before proceeding with construction operations, the Contractor shall contact Call-Before-You-Dig 1-800-922-4455 and shall make such supplemental investigations, including exploratory excavations by hand digging, as he deems necessary to uncover and determine the exact locations of utilities and structures and shall have no claims for damages due to encountering subsurface structures or utilities in locations other than those shown on the drawings, or which are made known to the Contractor prior to construction operations.

The Contractor shall be responsible for all damaged mains or utilities (facilities) caused by the Contractor during the progress of the work and shall be responsible for correcting all damages and the entire responsibility and expense shall be with the Contractor.

All Property and Utilities outside the project limits Damaged by the contractor shall be replaced or repaired by the Contractor to the complete satisfaction of the property Owner and/or the City, and at no additional expense to the City.

Failure To Repair- If and when, in the opinion of the City, the Contractor is not initiating repair work as expeditiously as possible upon notification to do so, the City may, at the City's own option, make the necessary repairs using its own forces or those of others. The cost of such repairs shall be subtracted from the payments due to the contractor.

**P. Finishing And Cleaning Up-**

In completing its operations, the Contractor shall immediately remove all surplus material, tools, and other property belonging to him, leaving the entire street or surroundings free and clean and in good order, at no additional expense to the City. The Contractor shall exercise special care in keeping the rights-of-way and private lands upon which work is performed free and clean of all debris, and shall remove all tools and other property when they are not in use. The City may after 24 hours notice, cause the work to be done and the cost thereof deducted from any payment due to the Contractor.

**Q. Right of Access-**

Nothing herein contained or shown on the drawings shall be construed as giving the Contractor exclusive occupancy of the work area. The City or any other contractors employed by him, the various utility companies, contractors or subcontractors employed by State or Federal agencies, or any other agencies involved in the general-project or upon

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public rights-of-way, may enter upon or cross the area of work or occupy portions of the area as is directed or necessary.

**R. Work By Others-**

The City reserves the right to do any work which may be connected with, or become a part of, or be adjacent to the work embraced by this contract, at any time, by contract or otherwise. The Contractor shall not interfere with the work of such others as the City may employ, and shall execute its own work in such a manner as to aid in the execution of the work of others as may be required.

**S. Termination for Convenience-**

The City hereby reserves the right to terminate this contract for any reason the City deems appropriate. Contractor To Lay Out Own Work- The City will establish such general reference points as in its judgment will enable the Contractor to proceed with the work. The Contractor, at its own expense, shall provide all materials and equipment and such qualified helpers as the City may require for setting the general reference points and shall protect and preserve all stakes, benches, and other markers used to identify the reference points. The Contractor shall lay out all the Contract work from the above and shall be responsible for the accuracy of all lines, grades, and measurements.

**T. Work Changes-**

The Owner may make changes by altering, adding to or deleting from the work, without invalidating the contract, but all such changes must be mutually agreed upon in writing, after a breakdown of estimated costs and changes in the contract sum attributable thereto and a statement of any necessary changes in time of completion, between the Owner and the Contractor before proceeding with the execution of the work. Charges or credits for work covered by the approved change shall be either (a) an agreed lump sum or (b) actual cost.

**U. Claims For Extra Work-**

After the contract has been signed, no claims for extra work will be honored, unless authorized in writing by the Owner.

**V. Power and Water-**

Should the contractor require electric power and/or water, he shall make necessary arrangements with the Owner for securing it and bear any expense involved, unless expressly provided for otherwise in the specifications.

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**W. Toilet Accommodations-**

The Contractor shall provide necessary sanitary toilet accommodations maintained in a sanitary condition for the workmen. All toilet accommodations must be self contained.

**X. Miscellaneous:**

The City will consider the Contractor as the prime contractor. In the event that a subcontractor is employed, to eliminate conflict of responsibility, the City will hold the Contractor responsible for the coordination of work; any damages caused by such work and guarantee the permanence of such work free from defect from a period of one year from completion date. Repairs made to this work within a year of completion date, will be billed to the Contractor.

Bidders shall complete and return "Experience Sheet" with this bid.

Selection will be made on the basis of Hourly Labor/Equipment prices, unit prices submitted, safety experience, worker qualifications and experience in utility construction, and repair work.

Successful bidder will be the prime contractor for all work, except for work to be done by the individual utility divisions.

Labor rates shown in the bid shall be based on a maximum 8 hours per day. Overtime, holidays or Sundays will be paid at 1.5 times the rates quoted.

The primary or successful bidder shall understand that in the event of so many projects occurring concurrently that their workers and equipment cannot handle them, or in the event that their workers and equipment are not available for any reason, the City reserves the right to call upon the second bidder for the use of their workers and equipment.

Bidder shall follow the city's standard start and end time for their workers and equipment. The Bidder must further indicate their company's policy for inclement weather, holidays, etc. City department hours as follows: NPU 8:00AM - 4:30PM (Summer hours: 7:00AM - 3:30PM, Memorial Day through Labor Day).

A bid premium will be paid for work scheduled, at customer request, during non-standard working hours. The premium will be bid as a percentage increase of standard wage rates. Standard overtime rates will apply after 8 hours of shift work. Overtime work rate after 8 hours of shift work will be based on standard wage rates and will not include any "Off" hour premium(s).

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Bidder's equipment shall be of good quality and it shall be maintained in good working condition so as to preclude any unnecessary breakdowns causing job holdups, as would be caused by improper maintenance. Therefore, the bidder shall as an integral part of this bid, list all equipment that is required for use on these jobs, whether portable or vehicular stating name manufacturer year model capacities and present condition. The City reserves the right to inspect the equipment before awarding the bid.

Bidder must attend the mandatory pre-bid meeting at the job site.

**Y. General Guarantee:**

The Contractor shall guarantee its work for a period of One (1) year after the date of the NPU final inspection and acceptance by final payment. Contractor shall during that period repair promptly, at its own expense all breaks, failures or defects which develop in its work as a result of faulty material or workmanship. If the Contractor, in the City's opinion, fails to provide a safe condition at the construction area, then the City may take control of the site and provide needed safety measures at the Contractor's expense.

The fact that the City may retain control of the premises, or that it or its agents may take action to erect or maintain railings or fences shall not relieve the Contractor's obligations hereunder.

The Contractor shall be responsible for excluding at all times from the land within the construction areas, all persons not directly connected with the work.

**Z. Contract Security**

The Contractor shall furnish a Performance Bond and Payment Bond in the amounts equal to at least one hundred percent (100%) of the contract price as security for the faithful performance of the Contract, and for the payment of all persons performing labor on the project under this contract and furnishing materials, equipment and all other incidentals in connection with this contract. The Surety on such a bond shall be a duly authorized surety company satisfactory to the Owner and the cost of the same shall be paid by the Contractor prior to the starting of any work, the bonds must be approved by the Owner and be in the Owner's hands. The bonds must be from a surety company licensed and approved to do business in the State of Connecticut.

**BID REQUIREMENTS**

All work shall be performed in accordance with the City's specifications, Norwich Public Utilities (NPU) Regulations, and all applicable Federal, State, and Local codes and Standards as amended.

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Work requests (i.e., change orders) by the City not covered by the bid shall be negotiated between the City and successful bidder. A walk through of the proposed job shall be performed with the NPU engineer and the contractor. The contractor shall submit a written estimate to NPU before a notice to proceed will be given.

It should be noted that this is a "Run of River" hydro operation and is dependent on seasonal water flows. Due to the nature of this repair, the work must be performed during low river level conditions and is contingent upon the immediate and long term weather forecast. Hence, the contractor is required upon award of contract to be mobilized and ready to commence repair work for the summer of 2011 (July-September).

**BID ITEMS**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
1.	Remove/reinstall section of roof to provide accessibility to remove/reinstall bearing assembly.	\$_____
2.	Disassemble, clean, inspect, Rebabbitt and remachine lower shell to print dimensions as specified by the manufacturer.  Remove, machine, and rebabbitt upper half. If required, shipment of entire assembly shall be included.  Perform ultrasonic inspection of babbitt bond integrity and provide report.  Reinstall complete assembly and test fit/repair as necessary.	\$_____
Alternate 1.	Modify and machine upper half of housing to accommodate a separable, babbitted sleeve sized appropriately to maintain the original bearing bore and clearance as specified by manufacturer.	\$_____

NPU may elect to perform any, all or none of the above bid items as deemed in the best interest of the City.

**EXPERIENCE SHEET**



## SAFETY GUIDELINES

### PART 1 - GENERAL

#### 1.0 SUMMARY

The following information is provided to the Contractor by the Owner with the understanding that these guidelines for safe work practices while working on the Owner's property are not intended in any way to be all-inclusive or to relieve the Contractor of any part of the responsibility for the safe performance of the work. If discrepancies exist between the sections or federal guidelines, the most stringent criteria shall govern.

### PART 2 - PRODUCTS

- 2.0 All safety related equipment including items such as cables, lanyards, and harnesses shall meet all applicable OSHA requirements and be in good working condition.

### PART 3 - EXECUTION

#### 3.0 DESIGNATION OF CONTRACTOR SITE SAFETY COORDINATOR

The Contractor shall designate a specific competent member of its management organization at the job site as its Safety Coordinator. The designee's duty shall be the prevention of accidents and other job losses and must have control of and be familiar with day-to-day construction activities of the Contractor. This person shall be responsible for initiating, maintaining, and supervising all safety and loss prevention programs and procedures in connection with the Work.

#### 3.1 REGULATORY COMPLIANCE

All work must be completed in compliance with all applicable occupational and environmental safety and health laws, regulations, standards, ordinances, codes and other similar requirements. Such requirements shall serve as minimum guidelines for all activities of the Contractor in connection with the Work.

#### 3.2 REPORTING AND INVESTIGATION OF OCCUPATIONAL INJURIES AND ILLNESSES

The Contractor shall require that all of its employees, all of its Subcontractors employees and all Third Parties report all occupational injuries and illnesses relating to the Work immediately to the Contractor.

The Contractor shall report all such cases to the Owner on a daily basis. Serious injuries and illnesses, fatalities or any cases involving any Owner personnel or property must be reported immediately to the Owner.

#### 3.3 PERSONAL PROTECTIVE EQUIPMENT

All employees of the Contractor and other persons entering onto Owner's property in connection with the Work shall wear appropriate protective equipment at all times. Special personal protective devices and/or equipment must be used where needed for the hazards of the Work. Such equipment shall be provided by the Contractor for all Contractor, Subcontractor, and any Third Party employee, including, but not limited to:

1. Hearing protection.
2. Respirator protection devices.
3. Fall protection devices.
4. Temperature protection equipment.
5. Full-face protection devices.
6. Hand protection equipment.
7. Life-lines and safety belts/harnesses.
8. Personal floatation device.
9. Any other special equipment/devices necessary to provide appropriate protection in their work.

Contractor, Subcontractor, or any Third Party is not only obligated to provide appropriate personal protective equipment to its employees, but is further obligated to stop the Work of any employee that fails to use the personal protective equipment properly.

All personal protective equipment shall meet the applicable requirements of NIOSH, OSHA, ANSI, and/or other applicable regulations, standards, or codes.

### 3.4 VESSEL OR CONFINED SPACE ENTRY

During the Work, it may be necessary for Contractor employees to enter vessels or confined spaces (areas of limited access or egress). The Contractor must have a written, enforced policy to assure the safety of all personnel under its supervision or control who enter any confined space or vessel in the performance of the Work. Such policies and procedures must comply with all applicable safety and health regulations.

The Contractor's procedure for safe entry and Work in vessels and in other confined spaces must include at least specific provisions on:

1. Employee education and training.
2. Use of a permit system.
3. Atmosphere testing and appropriate ventilation.
4. Use of appropriate respiratory protection.
5. Use of safety belts and lanyards.
6. Use of outside observer at all times.
7. Emergency action provisions.

### 3.5 WORK ABOVE GROUND LEVEL

Whenever Work is to be done above ground level or above walking or working areas

which may present a hazard to personnel or property below, all necessary action shall be taken by the Contractor to prevent falls from elevated Work areas and to protect personnel and equipment below from falling materials, tools, or other objects. This action shall include, without limitations, roping of the area and posting of warning signs to caution personnel below from falling materials. If necessary, a flagman shall be stationed below to warn persons in the area. All such barriers and signs shall be removed as soon as the Work is completed.

All personnel under Contractor supervision or control, who could fall from elevated Work areas, shall be protected by guardrails, safety belts and lanyards, safety nets or other effective means which comply with applicable Federal, State and Local regulations.

### 3.6 LADDERS

The Contractor shall provide employees with ladders that are constructed from non-conductive materials such as fiberglass. Ladders shall be equipped with anti-slip shoes and secured as required. As a minimum, the ladder must extend three feet above the upper floor landing.

### 3.7 RIGGING EQUIPMENT

Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during use to ensure that it is safe.

### 3.8 SCAFFOLDING

Scaffolds shall be erected in accordance with requirements of OSHA standards, 29 CFR 1926.451 - Scaffolding.

### 3.9 CRANE OR DERRICK SUSPENDED WORK PLATFORMS

Contractor owned or leased platforms suspended from lifting cranes or derricks for work to be performed at elevations that cannot normally be reached by other types of scaffolds or aerial work platforms, shall be designed and/or approved by a qualified engineer, periodically inspected for soundness and adequately maintained according to applicable Federal, State, and/or Local standards. Personnel on the work platforms shall adhere to Federal, State and/or Local safety work performance standards.

### 3.10 VEHICLE MOUNTED ELEVATING/ROTATING WORK PLATFORMS

Operation of vehicle mounted aerial platform devices shall be restricted to only those individuals that have been trained and are familiar with the vehicle's operation and emergency procedures.

Safe operation of aerial devices may require the presence of two or more persons, depending on the type of work being performed and the vehicular traffic in the area. As a minimum, a safety watch on the ground is required during welding or burning performed in the aerial device.

Aerial devices, unless specifically designed for and certified for such Work, shall not be used to work on energized electrical equipment.

Signs shall be posted and barricades erected in the area directly under the work area so that personnel cannot enter the Work area.

Employees working in the bucket shall keep BOTH feet on the floor of the bucket and be tied off to the bucket with an approved safety belt.

### 3.11 EXCAVATIONS

The Contractors shall have an enforced written policy requiring barrier protection for all excavations, pits, or open holes.

The Contractor's procedure for guarding excavations, pits, and holes must include as a minimum, specific provisions for:

1. Employee training.
2. Adequate barrier protection (*e.g.*, shoring, sloping).
3. Posting of signs warning of the hazard.

### 3.12 CHEMICAL SAFETY AND INDUSTRIAL HYGIENE

The Contractor shall obtain all information necessary to be fully aware of all potential exposures to hazardous materials and physical or biological agents in the performance of the Work. The Contractor shall provide to its employees, Subcontractors and Third Parties, all information and training on the nature of these potential hazards as required by Federal, State or Local Laws or Regulations, regardless of the source of such hazards.

The Contractor's program must include as a minimum, specific provisions for:

1. The location of potential hazards.
2. The potential adverse health effects posed by such hazards.
3. Proper safe work practices to prevent or reduce potential exposure.
4. Proper protective measures and equipment required.
5. Proper use of protective equipment.

6. Proper response to exposure incidents.

The Contractor shall provide all personal protective equipment to its employees required by the nature of the hazard. Such protective equipment must include at least the following items:

1. NIOSH-approved respirator protection equipment (for dusts, mists, fumes, gasses, etc.).
2. Hearing protection (plugs, muffs, etc.).
3. Protective clothing (chemical goggles, gloves, resistant clothing, etc.).

Certain chemical and physical agents (*i.e.*, asbestos, PCB=s, radiation sources, etc.), are specifically regulated by Federal, State and/or Local agencies. When the Work involves a potential exposure to any such hazards, the Contractor shall assure compliance with all of those specific regulations. If spills, releases, disposal or exposure occur which may require reporting to regulator agencies, the Contractor shall notify the Owner immediately of the nature of the incident.

### 3.13 CHEMICALS/"RIGHT TO KNOW" LAWS

The Contractor shall provide to the Owner the manufacturer's current and complete MSDS for every chemical that the Contractor will be bringing onto the site before the chemical comes onto the site.

The safety requirements on the MSDS will be followed by the Contractor, and he assumes sole responsibility and liability for compliance with such requirements.

Small portions of material which may be used on a daily basis will be handled in accordance with all applicable laws and disposed of and/or removed from the site at the end of each work day. Small buckets or personal containers that by law do not have to be labeled when used by one person on their shift will not be left on site with residue in them.

Upon completion of the work, the Contractor will be responsible for the proper clean-up, removal, and/or disposal of chemicals. Disposal methods and locations must be licensed for applicable chemical.

### 3.14 WELDING, BURNING AND FIRE SAFETY

The Contractor shall take all necessary precautions to prevent fire or other injury or damage relative to welding, burning or other spark or flame producing processes and procedures. Contractors shall also establish procedures for storage, handling and use of flammable or combustible materials which comply with all applicable laws, regulations and fire codes.

The Contractor shall assure that its employees and all Third Parties are familiar with fire protection and fire alarm systems in the area of the Work. The Contractor shall also be

responsible for fire alarm systems in the area of the Work. The Contractor shall also be responsible for supplying and maintaining a sufficient number of the appropriate type of fire extinguishers to support the Work involved. As a minimum, all employees of the Contractor, Subcontractor, and other Third Parties must be trained by the Contractor on:

1. Proper operation of fire extinguishers or other fire apparatus.
2. Emergency evacuation routes and procedures.

All fires and other emergencies are to be reported immediately by the Contractor to the Owner. The Contractor shall also report all impairments in fire detection or suppression systems occurring in the course of the Work to the Owner in advance of such impairment and the contractor shall establish alternate methods of detection or suppression, as may be necessary during the impairment to adequately safeguard personnel and property.

At any time during the Work where spark or flame producing operations are conducted (such as welding, cutting, or burning), a fire watch shall be established by the Contractor during and after such operations (for at least 30 minutes) to assure that fires do not ignite. The Contractor shall assure that fire watch personnel are trained in fire fighting and are aware of procedures for sounding alarms and making notifications in the event of a fire.

The Contractor shall take all action required to prevent fire on the site from any sources associated with the Work. Smoking control is particularly important. Personnel shall not smoke in areas which are not specifically designated smoking areas.

### 3.15 HOUSEKEEPING

The Contractor shall keep the Work site clean and orderly at all times. All material must be stored in locations and in such a manner that it will not interfere with operations or constitute any hazard to personnel or equipment. All paper, wood, chemicals or other scrap or Work material must be cleaned up regularly by the Contractor and removed from the Work site and disposed of in a lawful, safe and environmentally sound manner. Upon completion of the Work, the entire Work site must be cleaned by the Contractor, removing all chemicals, scrap, materials, tools, equipment, temporary structures or other items not intended as part of the finished project.

### 3.16 HEAVY EQUIPMENT OPERATION

No machinery or heavy equipment shall commence operation without undergoing a safety inspection. All machinery and heavy equipment shall be operated only by trained and qualified operators.

All mobile equipment shall be equipped with warning lights and/or audible alarms to indicate when the machinery is operating in reverse or when the line of site is limited.

Cranes shall be equipped with a proximity warning device, or equivalent, to warn the operator and other workers when the crane boom is brought near electrically charged equipment.

Contractors, Subcontractors, and all Third parties shall maintain records covering operator qualifications, and hands-on mobile equipment testing. Machinery and equipment inspection records shall be maintained in accordance with OSHA regulatory requirements and be made available for inspection by the Owner upon request.

### 3.17 GROUND FAULT PROTECTION

It shall be the Contractor's responsibility to provide the necessary equipment for ground fault protection or the implementation of an assured equipment grounding conductor program in connection with the use of portable power tools.

### 3.18 MEDICAL AND FIRST AID FACILITIES

The Contractor shall make provisions for adequate first aid and other medical treatment for occupational injuries and illnesses which may occur to employees of the Contractor, Subcontractor, or to Third Parties.

### 3.19 DRUG & ALCOHOL POLICY

#### A. Drugs

To the use, possession, transfer, sale or purchase or any drug or illegal or controlled substance on or off the Owner's property or job sites, other than possession of over-the-counter drugs and prescription medications for which the employee has a valid prescription, by the Contractor employees is prohibited. In addition, Contractor employees are prohibited from using or being impaired by any drug or substance of whatever type or legality that interferes with the person's ability to perform the job in a safe manner. Possession of paraphernalia used in connection with any drug or substance subject to this rule shall be a violation of this rule.

#### B. Alcohol

The use, possession or transportation of alcoholic beverages during working hours, (including regular or overtime or emergency call out), on Owner's property of job sites by Contractor employees is prohibited. In addition, no Contractor employee shall report to work impaired by alcoholic beverages.

### 3.20 CONDUCT OF CONTRACTOR'S EMPLOYEES

The following is a list of prohibited activities which is not intended to be all inclusive. If employees of Contractors engage in any of these activities, it shall constitute a default under the contract which may result in removal of the Contractor from the work site or barring the employee from the work site in addition to any other remedy available to the Owner. Failure by the Owner to discover or act on any such default shall not constitute an excuse for or a waiver of such default.

1. Willful violations of project safety or security rules.
2. Acts of sabotage to project or plant property, equipment, machinery or systems.
3. Sleeping on the job.
4. Engaging in horseplay or fighting. (Horseplay or fighting is defined as, but not limited to pushing, slapping, hitting, tripping, or any physical contact or other action which may cause or result in injury or bodily harm to any individual).
5. Use or possession of firearms or ammunition on the job site.
6. Suspected use, possession, and/or working under the influence of alcoholic beverages or drugs on Owner's property.
7. Failure to use sanitary facilities.
8. Failure to report accidents, job related injuries, and/or fires to supervision.
9. Removal of equipment safety devices, *e.g.*, alarms, guards, etc.

### 3.21 EMERGENCIES

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto the Contractor, without special instruction or authorization from Owner, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Owner immediate notification of any and all emergencies. Contractor shall give Owner prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

END OF SECTION

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