



Working Together for a
Better Tomorrow. Today.

SPECIFICATION PACKAGE

for

BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION

Bid Opening Date/Time

Thursday, February 6, 2014 @ 2:15 p.m. (local time)
City of Grand Island, City Hall
100 East 1st Street, P.O. Box 1968
Grand Island, NE 68802-1968

Contact

City of Grand Island – Utilities Department
Platte Generating Station
Lynn Mayhew, Assistant Utilities Director
308/385-5496

Date issued: January 24, 2014

**ADVERTISEMENT TO BIDDERS
FOR
BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION
FOR
CITY OF GRAND ISLAND, NEBRASKA**

Sealed bids will be received at the office of the City Clerk, 100 E. First Street, P.O. Box 1968, Grand Island, Nebraska 68802, until Thursday, February 6, 2014 at 2:15 p.m. local time for Control Performance Software and Services, FOB the City of Grand Island, freight prepaid. Bids will be publicly opened at this time in the Grand Island City Hall Council Conference Room #1 located on 1st floor of City Hall. Submit an original and three copies. Bid proposal package and any Addendas are also available on-line at www.grand-island.com under Business-Bid Calendars. Bids received after the specified time will be returned unopened to sender.

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Successful bidder shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

Each bidder shall submit with the bid a certified check, a cashiers check, or bid bond payable to the City Treasurer in an amount no less than five percent (5%) of the bid price which shall guarantee good faith on the part of the bidder and the entering into a contract within fifteen (15) days at the bid price if accepted by the City. **Your certified check, cashier's check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information and correct number of copies in clearly marked and separate envelopes will result in your bid not being opened or considered.** Only surety companies authorized to do business in the State of Nebraska may issue bid bonds.

Bids will be evaluated by the Purchaser based on price, schedule, quality, adherence to schedule, plan and specifications, economy and efficiency of operation, experience and reputation of the bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The Purchaser reserves the right to reject any or all bids, to waive irregularities therein, and to accept whichever bid that may be in the best interest of the City, at its sole discretion.

No bidder may withdraw his/her bid for a period of thirty (30) days after date of bid opening.

RaNae Edwards, City Clerk

Advertised
Grand Island Independent

(All bids must be submitted on this form)

BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION
BID DATA FORM

CITY OF GRAND ISLAND
GRAND ISLAND, NE

The undersigned Bidder, having examined all specifications and other bidding documents, and all addenda thereto, and being acquainted with and fully understanding all conditions relative to the specified materials and equipment, hereby proposes to provide such equipment FOB the City of Grand Island, freight prepaid, at the following price:

<u>ITEM DESCRIPTION</u>	<u>EXTENDED COST</u>
Base Bid:	
Material	\$ _____
Labor	_____
Applicable Sales tax*	_____
Total Base Bid	\$ _____

* If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.0% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due.

- By checking this box, Bidder acknowledges that Addenda Number(s) _____ were received and considered in Bid preparation.
- By checking this box, Bidder acknowledges the specified completion date of the project is **March 28, 2014**.

According to Nebraska Sales and Use Tax Requirements, Section 1-017, Contractors, check which option you have selected to file with the Nebraska Department of Revenue:

Nebraska law provides a sales and use tax exemption on contractor labor charges for the construction, repair, or annexation of any structure used for the generation, transmission, or distribution of electricity. Separately stated contractor labor would be exempt, all materials are taxable according to the contractor's option.

Option 1 (Section 1-017.05)_____ Option 2 (Section 1-017.06)_____ Option 3 (Section 1-017.07)_____

If the Nebraska sales and use tax election is not filed or noted above, the contractor will be treated as a retailer under Option 1 for sales and use tax purposes.

Bidder Company Name Date

Company Address City State Zip

Print Name of Person Completing Bid Signature

Telephone No. _____ Fax No. _____

By checking this box, Bidder acknowledges there are Exceptions noted to the bid.
NOTE: Any exceptions to specifications must be fully explained on a separate sheet attached to bid.

CHECKLIST FOR BID SUBMISSION

FOR

BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION

Bids must be received by the City Clerk before 2:15 p.m. on Thursday, February 6, 2014.

The following items must be completed for your bid to be considered.

- A signed original and three (3) copies of the bidding documents. Failure to submit the correct number of copies will result in your bid not being considered.
- A reference list of at least three similar projects and reference contacts.
- Firm lump sum pricing; firm unit pricing in case adjustments are necessary, and breakout of sales tax pricing.
- Selection of Nebraska Sales Tax Option.
- Acknowledgment of Addenda Number(s) _____.
- Bidders must complete and sign the Bid Data Form provided in these Documents. All blank spaces must be filled in. Bidders shall acknowledge receipt of any Addenda information on the Bid Data Form.
- A certified check, cashiers check or bid bond in a separate envelope attached to the **outside of the envelope containing the bid**. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information in clearly marked and separate envelopes will result in your bid not being opened.

Please check off each item as completed.

Company

Signature

Telephone No. _____

Fax No. _____

INSTRUCTIONS TO BIDDERS

1. GENERAL INFORMATION.

The following instructions outline the procedure for preparing and submitting Bids. Bidders must fulfill all requirements as specified in these Documents.

2. TYPE OF BID.

Bidders shall be required to submit prices for all items listed in the Bid Data Form.

3. PREPARATION OF BIDS.

Bidders shall use only the Bid Data Form provided in these Documents. All blank spaces in the Bid Data Form must be filled in, preferably in BLACK ink, in both words and figures where required. No changes to the wording or content of the forms is permitted. Written amounts shall govern in case of discrepancy between the amounts stated in writing and the amounts stated in figures.

Prices stated shall be f.o.b. with freight and full insurance paid by Bidder, to the job site located in Grand Island, Nebraska.

The Bidder shall acknowledge receipt of all Addenda in the Bid Data Form. Bids received without acknowledgement or without the Addendum enclosed will be considered informal.

4. SUBMISSION OF BIDS.

All Bids must be submitted intact with the correct number of copies no later than the time prescribed, at the place, and in the manner set forth in the ADVERTISEMENT FOR BIDS. Bids must be made on the Bid Data Form provided herein. Each Bid must be submitted intact in a sealed envelope, so marked as to indicate its contents without being opened, and delivered in person or addressed and mailed in conformance with the instructions in the ADVERTISEMENT FOR BIDS.

5. BID SECURITY.

Bids must be accompanied by cash, a certified check, or cashier's check drawn on a bank which is insured by the Federal Deposit Insurance Corporation, or a bid bond issued by a Surety authorized to issue such bonds in the state where the Work is located, in the amount of 5 percent of the bid amount payable to OWNER. This bid security shall be given as a guarantee that the Bidder will not withdraw their Bid for a period of **thirty (30) days after** bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Contract and furnish a properly executed Performance Bond and Payment Bond, each in the full amount of the Contract price, within the time specified if Performance Bond and Payment Bonds are required in the Detailed Specification.

The Attorney-in-Fact that executes this bond on behalf of the Surety must attach a notarized copy of his/her power of attorney as evidence of his/her authority to bind the Surety on the date of execution of the bond. Where State Statute requires, certification by a resident agent shall also be provided.

6. RETURN OF BID SECURITY.

Within fifteen (15) days after the award of the Contract, the OWNER will return the bid securities to all Bidders whose Bids are not to be further considered in awarding the Contract. All other retained bid securities will be held until the Contract has been finally executed, after which all bid securities, other than Bidders' bonds and guarantees which have been fortified, will be returned to the respective Bidders whose Bids they accompanied.

7. BASIS OF AWARD.

The award will be made by the OWNER on the basis of the Bid from the lowest responsive, responsible Bidder which, in the OWNER's sole and absolute judgment will best serve the interest of the OWNER. All Bids will be considered on the following basis:

Conformance with the terms of the Bid Documents.

Bid price.

Cost of installation.

Suitability to project requirements.

Delivery time.

Responsibility and qualification of Bidder.

The OWNER reserves the right to reject all Bids, or any Bid not in conformance with the intent of the Bid Documents, and to waive any informalities and irregularities in said Bids.

8. TIME OF COMPLETION.

The time of completion of the Work to be performed under this Contract is the essence of the Contract. The time allowed for the completion of the Work is stated in the Bid Data Form.

9. GRATUITIES AND KICKBACKS.

City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

10. FISCAL YEAR.

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into by and between **[SUCCESSFUL BIDDER]**, hereinafter called the Contractor, and the **CITY OF GRAND ISLAND, NEBRASKA**, hereinafter called the City.

WITNESSETH:

THAT, WHEREAS, in accordance with law, the City has caused contract documents to be prepared and an advertisement calling for bids to be published for *BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION*; and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined, and canvassed the bids submitted, and has determined the aforesaid Contractor to be the lowest responsive and responsible bidder, and has duly awarded to said Contractor a contract therefore, for the sum or sums named in the Contractor's bid, a copy thereof being attached to and made a part of this Contract;

NOW, THEREFORE, in consideration of the compensation to be paid to the Contractor and of the mutual agreements herein contained, the parties have agreed and hereby agree, the City for itself and its successors, and the Contractor for itself, himself/herself, or themselves, and its, his/her, or their successors, as follows:

ARTICLE I. That the following documents shall comprise the Contract, and shall together be referred to as the "Agreement" or the "Contract Documents";

1. This Contract Agreement.
2. City of Grand Island's Specification for this project.
3. **[NAME OF SUCCESSFUL BIDDER]** bid signed and dated **[DATE OF BID]**.

In the event of any conflict between the terms of the Contract Documents, the provisions of the document first listed shall prevail.

ARTICLE II. That the Contractor shall (a) furnish all tools, equipment, superintendence, transportation, and other construction materials, services and facilities; (b) furnish, as agent for the City, all materials, supplies and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good substantial and workmanlike manner and in accordance with the requirements, stipulations, provisions, and conditions of the Contract documents as listed in the attached General Specifications, said documents forming the Contract and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct and complete all work included in and covered by the City's official award of this Contract to the said Contractor, such award being based on the acceptance by the City of the Contractor's bid;

ARTICLE III. That the City shall pay to the Contractor for the performance of the work embraced in this Contract and the Contractor will accept as full compensation therefore the sum (subject to adjustment as provided by the Contract) of **[DOLLAR AMOUNT] (\$00.00)** for all services, materials, and work covered by and included in the Contract award and designated in the foregoing Article II; payments thereof to be made in cash or its equivalent in the manner provided in the General Specifications.

The total cost of the Contract includes:

Base Bid:	\$.00
Sales Tax on Materials/Equipment:	\$.00
Sales Tax on Labor:	<u>\$.00</u>
Total	\$.00

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

ARTICLE IV. The Contractor hereby agrees to act as agent for the City in purchasing materials and supplies for the City for this project. The City shall be obligated to the vendor of the materials and supplies for the purchase price, but the Contractor shall handle all payments hereunder on behalf of the City. The vendor shall make demand or claim for payment of the purchase price from the City by submitting an invoice to the Contractor. Title to all materials and supplies purchased hereunder shall vest in the City directly from the vendor. Regardless of the method of payment, title shall vest immediately in the City. The Contractor shall not acquire title to any materials and supplies incorporated into the project. All invoices shall bear the Contractor's name as agent for the City. This paragraph will apply only to these materials and supplies actually incorporated into and becoming a part of the finished product of the BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION.

ARTICLE V. That the Contractor shall start work as soon as possible after the Contract is signed and the required bonds and insurance are approved, and that the Contractor shall deliver the equipment, tools, supplies, and materials F.O.B. C.W. Burdick Generating Station, and complete the work on or before **March 28, 2014**.

ARTICLE VI. The Contractor agrees to comply with all applicable State fair labor standards in the execution of this Contract as required by Section 73-102, R.R.S. 1943. The Contractor further agrees to comply with the provisions of Section 48-657, R.R.S. 1943, pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. During the performance of this Contract, the Contractor and all subcontractors agree not to discriminate in hiring or any other employment practice on the basis, of race, color, religion, sex, national origin, age or disability. The Contractor agrees to comply with all applicable Local, State and Federal rules and regulations. The Contractor agrees to maintain a drug-free workplace policy and will provide a copy of the policy to the City upon request. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

ARTICLE VII. Gratuities and kickbacks: City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or

proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

[SUCCESSFUL BIDDER]

By _____ Date _____

Title _____

CITY OF GRAND ISLAND, NEBRASKA

By _____ Date _____
Mayor

Attest: _____
City Clerk

The Contract is in due form according to law and hereby approved.

Attorney for the City Date _____

DRAFT



*Working Together for a
Better Tomorrow, Today.*

REQUEST FOR BIDS - GENERAL SPECIFICATIONS

The Bid shall be in accordance with the following and with all attached BID DATA and DETAILED SPECIFICATIONS.

All prices are to be furnished and installed FOB, Grand Island, Nebraska. **All prices shall be firm, and shall include all sales and use taxes as lawfully assessed under laws and regulations of the State of Nebraska.** * If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.0% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due.

Bids shall include the following on the **outside** of the mailing envelope: **“Burdick Pump Station High Service Pump 2 Recondition”**. All sealed bids are due no later than **Thursday, February 6, 2014 at 2:15 p.m. local time**. Submit **an original and three copies** of the bid to:

Mailing Address: City Clerk
City Hall
P. O. Box 1968
Grand Island, NE 68802-1968

Street Address: City Clerk
City Hall
100 E. First Street
Grand Island, NE 68801

Bids will be opened at this time in the City Hall Council Conference Room #1 located on 1st floor of City Hall. Any bid received after the specified date will not be considered. No verbal bid will be considered.

Bids will be evaluated by the Purchaser based on price, schedule, quality, adherence to schedule, plan and specifications, economy and efficiency of operation, experience and reputation of the bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Contractor shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

The equipment and materials must be new, the latest make or model, unless otherwise specified. Prior to approving the invoice for payment, the City reserves the right to thoroughly inspect and test the equipment to confirm compliance with specifications. Any equipment or material which does not meet the City's requirements will be returned at vendor's expense for correction. The invoice will be paid after approval at the next regularly scheduled City Council meeting and occurring after departmental approval of invoice; the City Council typically meets the second and fourth Tuesday of each month. Invoices must be received well in advance of Council date to allow evaluation and processing time.

Each bidder shall submit with the bid a certified check, a cashiers check, or bid bond payable to the City Treasurer in an amount no less than five percent (5%) of the bid price which shall guarantee good faith on the part of the Bidder and the entering into a contract within fifteen (15) days at the bid price if accepted by the City. **Your certified check, cashier's check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid.** Each envelope must be clearly marked indicating its contents. **Failure to submit the necessary qualifying information and correct number of copies in clearly marked and separate envelopes will result in your bid not being opened or considered.** Only surety companies authorized to do business in the State of Nebraska may issue bid bonds.

Successful bidder shall comply with the City's insurance requirements; performance and payment bonds are required for this project if outlined in the Detailed Specifications and Instructions to Bidders.

All bids shall be valid for at least thirty (30) working days after the bid deadline for evaluation purposes.

All bids must be on the bid form and must be signed and dated to be accepted. Please contact Mike Steinke at 308-385-5468, for questions concerning this specification.

BURDICK PUMP STATION HIGH SERVICE PUMP 2 RECONDITION
DETAILED SPECIFICATIONS

SCOPE. Furnish all material and labor to recondition the Burdick Pump Station High Service Pump 2 in accordance with the following specifications.

LOCATION. The Burdick Generating/Pump Station is located at 800 E. Bischeld Street, Grand Island, Nebraska, 68801.

DESCRIPTION. The high pressure pump is a Worthington 12LNCS, serial number 1597784, 1175 rpm, TDH 165 ft, 6600 gpm, horizontal split-case pump. Driver – 350 HP. Engineered Pump Services, Inc. (EPS) inspected the pump and prepared the following repair work scope.

PUMP REPAIR. Reconditioning of the pump shall include the following work items.

1. Casing
 - a. Use Belzona or alike machineable metal epoxy to fill in the corrosion damage at the stuffing box locations and the CE ring fit erosion damage.
 - b. Blanchard grind the main joint to remove/reduce pitting and ensure a good gasket seal face.
 - c. Line up and re-dowel pump casing halves.
 - d. Line bore the casing stuffing box and case wear ring locations for a .03" gasket. Indicate and machine the bearing housing faces to ensure perpendicularity to the shaft centerline.
 - e. Coat the internal passages with two coats of Chesterton ARC 855 abrasion resistant epoxy. The application is a two color coat to ensure exceptional coverage.
2. Impeller
 - a. Remove the CE case wear ring.
 - b. Excavate, weld repair, and hand grind to contour the leading edge indications.
 - c. Machine the impeller bore oversize to establish a new design fit diameter. The new shaft will be manufactured to ensure the proper design fit with the impeller. Machine the impeller wear ring turns to the new design cleanup diameter. Machine the axial hub faces to ensure perpendicularity.
 - d. Dynamically balance each impeller to ISO G-2.5 or better.
3. Thrust Bearing Housing
 - a. Blanchard grind the split line.
 - b. Setup and re-dowel
 - c. Machine the bearing housing bore complete to renew the design fit clearance with the TE bearing. Machine the axial seat face to ensure perpendicularity to the shaft centerline.
 - d. Coat the internal surfaces per the EPS specification for bearing housings.
4. Thrust Bearing Cover
 - a. Machine the axial thrust face and or seat face as required, establishing the proper endplay and perpendicularity to the shaft centerline.
5. Line Bearing Housing
 - a. Stone the split line and clean out dowel holes
 - b. Setup and machine the axial seat face to ensure perpendicularity to the shaft centerline.
 - c. Coat the internal surfaces per the EPS specification for bearing housings.
6. Line Bearings
 - a. Rebabbitt and remachine complete.
7. Assembly
 - a. Assemble the rotating element complete and dynamically balance the rotor to ISO G-2.5.
 - b. Indicate the rotor components for runnout and record.
 - c. Assemble element in the casing and record axial float and lifts.
 - d. Assemble bearing housings complete.
 - e. Prep for shipment back to City of Grand Island Burdick Station.
 - f. Provide a closing report with all as assembled and final dimensions.

CONTRACTOR FURNISHED PARTS. The following parts shall be provided by the Contractor for repair of the pump.

Qty	Part Description	Material
1	Pump Shaft	410 Stainless Steel DVSR
2	Case Wear Ring	936 Bronze
2	Shaft Sleeve	420 Stainless Steel HT
2	Shaft Sleeve Nut	410 Stainless Steel
3	Oil Seal Ring Thrower	954 Bronze
2	Water Shield flinger	954 Bronze
1	Thrust Bearing	SKF 6312
1	Bearing Locknut and Washer	AN18 / W18
2	O-Ring (Shaft Sleeve)	Buna
1	TE Bearing Cover Gasket	Klinger
1	Main Joint Gasket	Klinger
Lot	Casing Hardware	B7 / Grade 8 / 2H
1	Impeller Wear Ring	954 Bronze

INSPECTION REPORT. A copy of the inspection report from EPS is attached. The pump may be inspected at the EPS facilities by contacting Ryan Kraus, 262-363-9002.

EXTRA WORK. The Contractor shall advise the City immediately of repairs required in addition to the above items. Extra work shall be authorized by the City prior to performing the work.

SCHEDULE. The completed pump shall be received at the Burdick Generating Station no later than Friday, **March 28, 2014** based on a notice to proceed date of February 25, 2014.

SHIPPING. The Contractor shall provide all shipping, including from EPS facilities to the final destination at Burdick Generating Station.

REFERENCES. A list of three (3) recent previous projects of similar scope and reference contacts shall be furnished with the bid.

CONTACT. For any questions regarding this specification, contact Mike Steinke at Platte Generating Station 308-385-5468.

MINIMUM INSURANCE REQUIREMENTS
CITY OF GRAND ISLAND, NEBRASKA

The successful bidder shall obtain insurance from companies authorized to do business in Nebraska of such types and in such amounts as may be necessary to protect the Bidder and the interests of the City against hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Bidder's operations and completed operations. Failure to maintain adequate coverage shall not relieve Bidder of any contractual responsibility or obligation. Minimum insurance coverage shall be the amounts stated herein or the amounts required by applicable law, whichever are greater.

1. WORKERS COMPENSATION AND EMPLOYER'S LIABILITY

This insurance shall protect the Bidder against all claims under applicable State workers compensation laws. This insurance shall provide coverage in every state in which work for this project might be conducted. The liability limits shall not be less than the following:

Workers Compensation	Statutory Limits
Employers Liability	\$100,000 each accident
	\$100,000 each employee
	\$500,000 policy limit

2. BUSINESS AUTOMOBILE LIABILITY

This insurance shall be written in comprehensive form and shall protect the Bidder, Bidder's employees, or subcontractors from claims due to the ownership, maintenance, or use of a motor vehicle. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$ 500,000 Combined Single Limit
---------------------------------	----------------------------------

3. COMPREHENSIVE GENERAL LIABILITY

The comprehensive general liability coverage shall contain no exclusion relative to explosion, collapse, or underground property. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$ 500,000 each occurrence
	\$1,000,000 aggregate

4. UMBRELLA LIABILITY INSURANCE

This insurance shall protect the Bidder against claims in excess of the limits provided under employer's liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the form of the primary insurance, including the application of the primary limits. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$1,000,000 each occurrence
	\$1,000,000 general aggregate

5. ADDITIONAL REQUIREMENTS

The City may require insurance covering a Bidder or subcontractor more or less than the standard requirements set forth herein depending upon the character and extent of the work to be performed by such Bidder or subcontractor.

Insurance as herein required shall be maintained in force until the City releases the Bidder of all obligations under the Contract.

The Bidder shall provide and carry any additional insurance as may be required by special provisions of these specifications.

6. CERTIFICATE OF INSURANCE

Satisfactory certificates of insurance shall be filed with the City prior to starting any work on this Contract. **The certificates shall show the City as an additional insured on all coverage except Workers Compensation. The certificate shall state that thirty (30) days written notice shall be given to the City before any policy is cancelled (strike the "endeavor to" wording often shown on certificate forms). If the Bidder cannot have the "endeavor to" language stricken, the Bidder may elect to provide a new certificate of insurance every thirty (30) days during the contract. Bidder shall immediately notify the City if there is any reduction of coverage because of revised limits or claims paid which affect the aggregate of any policy.**



ENGINEERED PUMP SERVICES, INC.

624 Perkins Drive • Mukwonago, WI 53149-1454
(262) 363-9002 • (800) 657-0845 • fax (262) 363-9013
www.epsumps.com • email: eps@epsumps.com

INSPECTION REPORT

CUSTOMER	: City of Grand Island	REPORT DATE	: 12/19/2013
PLANT NAME	: Burdick Station	REPORT NO.	: 54919-IR1
CITY/STATE	: Grand Island, Nebraska	CUST. ORDER	: 509413
EQUIPMENT	: 12 LNCS - 22	COPY	: Mike Steinke
SERVICE	: Service Water	FILE	: 54919
MANF.	: Worthington	PAGE	: 1 of 6
SERIAL NO.	:		

The subject pump was sent in to Engineered Pump Services, Inc. for inspection. The components were completely disassembled, and cleaned. The casing, sleeves, and impeller were glass bead blasted clean. The shaft and bearing housing components were hand cleaned. The results from the visual and dimensional inspection are discussed in this report and broken out by part name.

Casing – The casing has erosion damage throughout. It is especially bad in the stuffing box and CE case wear ring locations. These areas will need to be repaired. At disassembly the main joint gasket was measured to be .017” thick. This would cause the TE wear ring to have an interference fit with the casing, while the CE case ring clearance was around .100” loose. The main joint has some pitting in towards the case ring locations.

Pump Shaft – The carbon steel shaft is pitted throughout. The bearing journal locations are also pitted. The thrust end bearing journal has some minor scuffing, and a .002” step. The resulting fits to the impeller & shaft sleeves are out of tolerance. However, the total indicated runnout is less than .001”. The impeller key is heavily corroded and is seized in the shaft.

Casing Ring – The CE case wear ring is seized to the impeller, and had spun in the casing. The ring was initially undersize for the fit, as the OD wear is only from contact with the anti rotation roll pin. The TE case wear ring measures interference with the casing as the main joint gasket was undersized at .017” vs. a .032” gasket. With the TE ring installed in the casing, has .007” side clearance on the TE, and .012” side clearance on the CE.

Impeller – The impeller is good overall visual condition. The fit bores to the shaft are a little out of round, and the resulting clearance is out of tolerance. The CE case wear ring is seized to the impeller. The TE wear ring measures 13.509” to 13.515” and has evidence of light contact wear 360° around. The resulting running clearance measures .036” to .042”. The leading edges have some small cracks forming. There is no evidence of cavitation or other erosion damage to the impeller.

BY: _____
Ryan Kraus

INSPECTION REPORT

CUSTOMER : City of Grand Island
REPORT NO. : 54919-IR1

REPORT DATE : 12/19/13
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Shaft Sleeves – The shaft sleeve OD's are grooved and pitted. The fit bores measure .003" out of round. The resulting fit clearances to the shaft are out of tolerance.

Seal Cage – The seal cages are rough, but can be re-used.

Shaft Sleeve Nuts – The shaft sleeve nuts were stuck on the shaft, and both had to be cut off.

Thrust Bearing Housing – The thrust end bearing housing fit bore measures .007" out of round. The resulting clearance to the bearing shell is compromised and out of tolerance.

Thrust Bearing Cover – The thrust end cover is in good visual condition.

Line Bearing Housing – The line bearing housing bore measures round with .001", and the fit clearance to the bearing is acceptable.

Water Shield (Flinger) – The flinger bores are out of tolerance. New flingers will be supplied.

Line Bearing – The bearings are in good overall condition, with the exception that the running bore with the shaft is out of tolerance. Hand dressed oil supply ports were observed. These will be replaced with properly machined oil grooves. The bearings will be rebabbitted and machined complete.

Oil Seal Ring (Thrower) – The Oil throwers are in good overall condition, however, the fits to the shaft are out of tolerance. New throwers will be supplied.

Oil Rings – The oil rings are in good shape and measure round.

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As Measured Dimensions of Stationary Components			
Location Description	Bore	Turn	Clearance
CE Bearing Housing and CE Journal Bearing	4.6255 to 4.6270	4.6250 to 4.6260	(0.0005) to 0.002
CE Casing Bore (.015 gskt) and CE Case Wear Ring	14.5060 to 14.5060	14.3720 to 14.4100	0.096 to 0.134
TE Casing Bore (.015 gskt) and TE Case Wear Ring	14.4820 to 14.4820	14.4970 to 14.4975	(0.0155) to (0.015)
TE Bearing Housing and TE Journal Bearing	4.6260 to 4.6330	4.6220 to 4.6230	0.003 to 0.011

As Measured Dimensions of Rotating Components			
Location Description	Bore	Turn	Clearance
CE OB Oil Seal Ring and Pump Shaft Fit	3.3750 to 3.3780	3.3730 to 3.3730	0.002 to 0.005
CE IB Oil Seal Ring and Pump Shaft Fit	3.3740 to 3.3790	3.3730 to 3.3730	0.001 to 0.006
CE Flinger and Pump Shaft Fit	3.5640 to 3.5670	3.5600 to 3.5600	0.004 to 0.007
CE Shaft Sleeve and Pump Shaft Fit	3.7495 to 3.7520	3.7460 to 3.7460	0.0035 to 0.006
CE Impeller Bore and Pump Shaft Fit	3.7500 to 3.7530	3.7480 to 3.7490	0.001 to 0.005
TE Impeller Bore and Pump Shaft Fit	3.7510 to 3.7540	3.7510 to 3.7520	(0.001) to 0.003
TE Shaft Sleeve and Pump Shaft Fit	3.7480 to 3.7510	3.7470 to 3.7470	0.001 to 0.004
TE Flinger and Pump Shaft Fit	3.5600 to 3.5680	3.5610 to 3.5610	(0.001) to 0.007
TE Oil Seal Ring and Pump Shaft Fit	3.3780 to 3.3780	3.3730 to 3.3750	0.003 to 0.005
Thrust Bearing Bore and Pump Shaft Fit	2.3620 to 2.3625	2.3630 to 2.3630	(0.001) to (0.0005)

As Measured Dimensions of Rotating to Stationary Components			
Location Description	Bore	Turn	Clearance
CE Bearing Housing and OB Seal Ring	4.6260 to 4.6270	4.5560 to 4.5580	0.068 to 0.071
CE Journal Bearing and Pump Shaft	3.3800 to 3.3820	3.3730 to 3.3730	0.007 to 0.009
CE Bearing Housing and IB Seal Ring	4.6255 to 4.6260	4.5550 to 4.5585	0.067 to 0.071
CE Impeller Wear Ring and Case Wear Ring	Damaged	Damaged	N/A
TE Impeller Wear Ring and Case Wear Ring	13.5090 to 13.5150	13.4725 to 13.4730	0.036 to 0.0425
TE Bearing Housing and TE Seal Ring	4.6300 to 4.6330	4.5570 to 4.5600	0.070 to 0.076
TE Journal Bearing and Pump Shaft	3.3785 to 3.3810	3.3730 to 3.3750	0.0035 to 0.008

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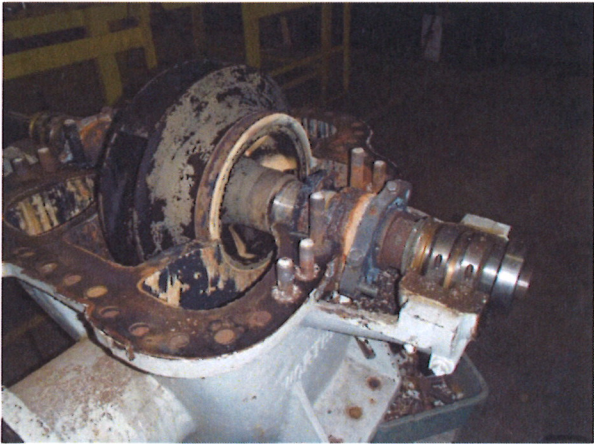
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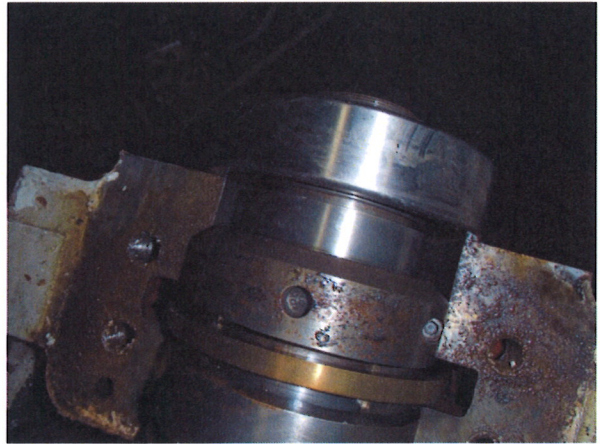
Pump as received



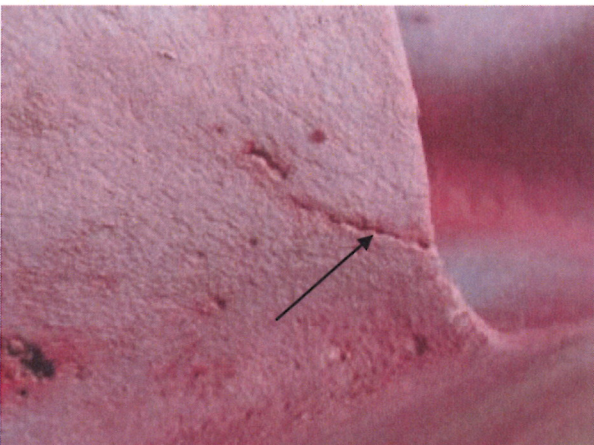
Pump casing top half



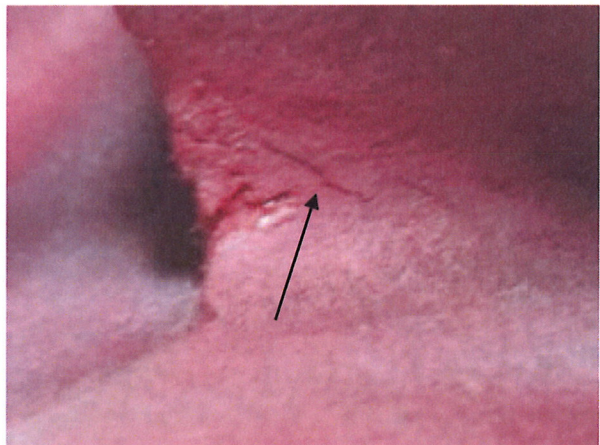
Pump assembly with top cover removed



TE bearing housing with foreign material



Typical leading edge crack (TE)



Typical leading edge crack (CE)

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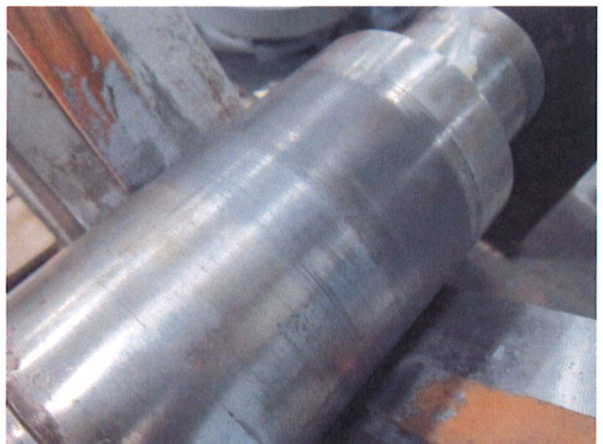
Impeller with TE case ring installed



Impeller CE with case ring OD wear (step)



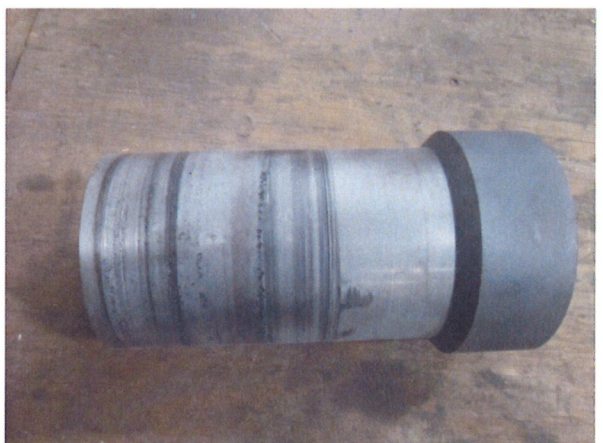
Pump shaft impeller fit & key with corrosion



TE bearing journal scoring and foreign material



Pump shaft corrosion



Typical shaft sleeve wear and pitting

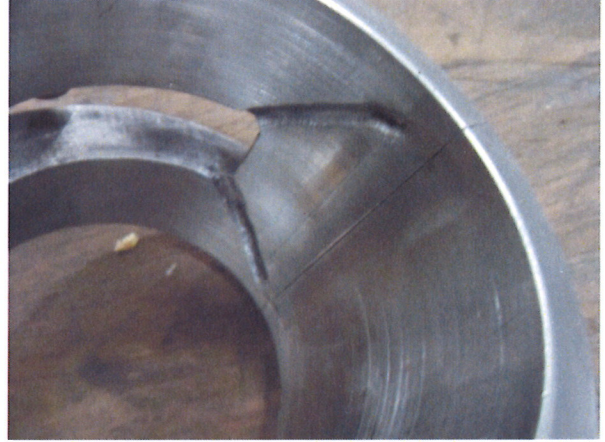
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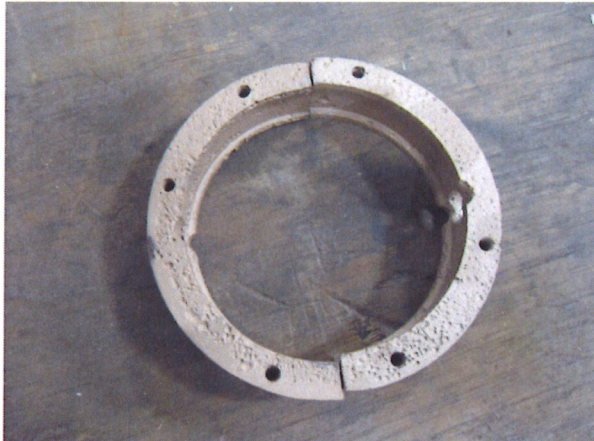
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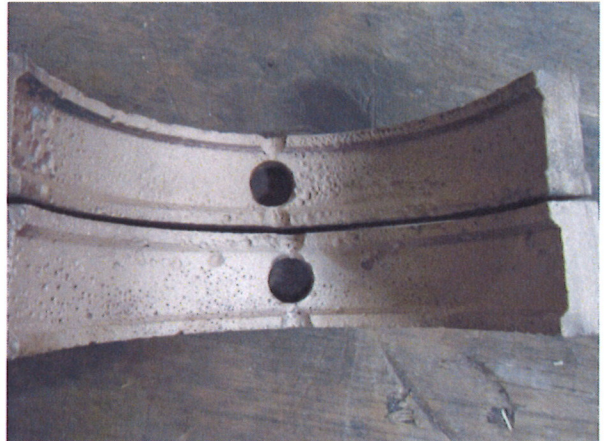
Typical light bearing wear



Hand worked oil grooves



Typical lantern ring corrosion



ID lantern ring corrosion