

**CHESTERFIELD COUNTY  
PURCHASING DEPARTMENT  
CHESTERFIELD, VIRGINIA  
(804) 748-1617  
July 23, 2009**



INVITATION FOR BID #09-9903

REPLACEMENT PUMPS FOR CHESTERFIELD COUNTY  
HAPPY HILLS PUMP STATION

DUE: 2:00 PM, August 21, 2009

*Invitation For Bid Prepared By  
Harold F. Leach, C.P.M., CPPB, VCO  
Senior Contract Officer  
Purchasing Department  
[www.chesterfield.gov/Purchasing.aspx](http://www.chesterfield.gov/Purchasing.aspx)*

**CHESTERFIELD COUNTY PURCHASING DEPARTMENT  
GENERAL TERMS, CONDITIONS, AND INSTRUCTIONS  
IMPORTANT - READ CAREFULLY BEFORE SUBMITTING BID**

**1. SUBMISSION AND RECEIPT OF BIDS:**

- a. Sealed bids shall be received until, but no later than the specified time and date of opening as designated in the invitation. Late bids shall be rejected. **Bids, to include addenda or changes to a response, shall not be accepted via a FAX machine or by Internet E-mail.**
- b. In the event that Chesterfield County government offices are closed due to inclement weather and/or emergency situations at the time set aside for a pre-bid meeting and/or the published bid opening, the pre-bid meeting and/or bid opening date will default to the next open business day at the same time.
- c. All bids shall be signed on the Terms and Signature Sheet in order to be considered. Bids submitted without a signature shall be rejected. If the Bidder is a partnership or corporation, the Bidder shall show the title of the individual signing the bid, and if the individual is not an officer of the partnership or corporation, if requested, the Bidder shall submit proof that the individual has the authority to bind the partnership or corporation.
- d. **Only when specifically requested in the bid documents** shall each bid be accompanied by a bid bond with surety satisfactory to the County Attorney or a Cashier's or a Certified Check, made payable to the Treasurer, Chesterfield County. In the event of default by the Bidder, the deposit shall be and represent liquidated damages to the County. Bids received without a bid bond, when specifically requested, shall be rejected.
- e. Bids concerning separate bid invitations are not to be combined on the same form or placed in the same envelope. Bids submitted in violation of this provision may not be considered.
- f. Unless otherwise specified, Bidders are to use the bid form furnished by the County.
- g. No bid shall be altered or amended after the specified time for opening.

2. **AMENDING BIDS:** Amending or withdrawing bids by a potential bidder prior to bid opening: A potential bidder may amend and/or withdraw a bid before the due date and time set for receipt of bids. All requests from a potential bidder to return their bid shall be in writing, addressed to the Purchasing Department, and signed by a person authorized to represent the person or firm that submitted the bid. The potential bidder may be contacted by telephone to verify the authorization of the return request and the signature involved if there is doubt as to the documents authenticity. All amendments/alterations to the bid are to be initialed by an individual authorized to represent the person or firm that submitted the bid.

**3. WITHDRAWAL OF BIDS:**

**Withdrawal: Construction** (*Code of Virginia 2.2-4330*)

- a. A bidder for a public construction contract, other than a contract for construction or maintenance of public highways, may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or unintentional omission of a quantity of work, labor, or material made directly in the compilation of a bid which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid which shall be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

No bid may be withdrawn after the scheduled closing time for receipt of bids for sixty (60) calendar days, except as provided in Section 2.2-4330(A)(i), *Code of Virginia*, which states the bidder shall give notice in writing of his claim of right to withdraw his bid within two business days after the conclusion of the bid opening procedure. Any withdrawal request made to the Director of Purchasing must be accompanied by bidder's original work papers, or such request will be rejected. In order for work papers, documents and materials submitted pursuant to this section to be deemed a trade secret or proprietary information pursuant to *Code of Virginia*, subdivision F of 2.2-4342, a bidder must expressly invoke the aforementioned statute in the notice of withdrawal and specifically state the reasons why protection under 2.2-4342-F is necessary.

#### **Withdrawal: (other than construction)**

- b. A bidder for a public contract may request withdrawal of his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or unintentional omission of a quantity of work, labor, or material made directly in the compilation of the bid which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. If a bid contains both clerical and judgment mistakes, a bidder may request withdrawal of his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid which shall be clearly shown by objective evidence drawn from inspection of original work papers documents and materials used in the preparation of the bid sought to be withdrawn. In order for work papers, documents and materials submitted with the notice of withdrawal to be deemed a trade secret or proprietary information pursuant to *Code of Virginia*, subdivision E of 2.2-4342, a bidder must expressly invoke the aforementioned statute in the notice of withdrawal and specifically state the reasons why protection under 2.2-4342-E is necessary.

#### **4. DENIAL OF WITHDRAWAL OF BID: (Code of Virginia 2.2-4330)**

If the County denies the withdrawal of a bid, it shall notify the bidder in writing stating the reasons for its decision and award the contract to such bidder at the bid price, provided such bidder is a responsible and responsive bidder.

#### **5. MISTAKES IN BIDS**

- a. Mistakes discovered following bid opening but prior to award: If there is a significant and obvious disparity between the prices of the lowest apparent responsive bidder and other bidders, the low bidder may be contacted by the purchasing authority to confirm the bid price. This does not relieve a bidder from the responsibility for the submission of a correct bid. If the bidder then alleges a mistake in the bid and can provide clear and convincing evidence that supports the existence of a clerical error to the satisfaction of the purchasing authority, the bid may be withdrawn only after approval by the County.
- b. Mistakes discovered after award: Bids containing mistakes by bidders shall not be withdrawn after award of a contract or issuance of a purchase order.

#### **6. PRICING:**

- a. Bidder warrants by virtue of bidding that prices, terms and conditions quoted in his bid will be firm for acceptance for a period of sixty (60) days from the date of bid opening unless otherwise stated by the County or Bidder.
- b. Prices should be stated in units of quantity as specified in the bid form. In case of error in extension of prices in the bid, the unit price shall govern.
- c. When a bid is for goods and/or services to be delivered on a one time only or staggered basis, only firm pricing shall be given consideration. General terms such as "price in effect at time of delivery" shall not be considered for award.

7. **PERFORMANCE AND PAYMENT BOND:** When requested in the bid, the County shall require the successful bidder to furnish a performance bond and labor and material payment bond with surety satisfactory to the County Attorney in the amount of the contract price at the time of or prior to execution of the contract. If bonds are requested in the bid, the successful Bidder shall pay the cost thereof; if not specified, the successful Bidder, when requested to do so, shall secure the bonds and the County shall pay the cost thereof.
8. **DELIVERY POINT AND TERMS:** All items shall be delivered F.O.B. destination, and freight, delivery costs, and incidental charges shall be included in the bid price(s). Failure to do so may be cause for not making award to a Bidder. The Bidder shall assume all liability and responsibility for the delivery of merchandise in good condition to the specified delivery location(s).
9. **INVOICES:** Invoices for items ordered and delivered shall be submitted by the contractor in accordance with the "Send Invoice To" address shown on the purchase order. All invoices shall show the purchase order number, the name of the person placing the order, the item description, stock number, and contract price as applicable. The County's obligation to pay amounts due under the contract shall be contingent upon receipt by it of invoices in sufficient detail to permit identification of the items as described in the specifications.
10. **PAYMENT TERMS:** If discounts for prompt payment are offered by the bidder, it is required that a minimum of twenty (20) days be allowed for payment. Discounts for prompt payment will not be considered in the evaluation of bids. Discounts for prompt payment will be shown on the purchase order/contract and taken if invoices are processed and payment made within the stipulated time frame. If discounts are not offered, payment shall be made thirty (30) days after receipt of an accurate invoice by the County.
11. **FINANCE CHARGES:** Finance charges imposed by the vendor on any invoice shall not be paid by the County.
12. **USE OF BRAND NAMES/SUBSTITUTIONS:** Unless otherwise specified in the invitation to bid, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named; it conveys the general style, type, character, and quality desired, and any product which the County in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted.

In requesting a proposed substitution, the bidder shall submit with the bid form the name of the manufacturer, model number, and complete specifications on the proposed substitution for evaluation by the County. The bidder shall submit, with the bid form, a detailed list of any deviations from these specifications, written or implied. The bidder assumes responsibility for all changes in the work required as a result of the proposed substitution, including any change not listed in the request, but determined by the County to be necessary at a later point of progress in the work.

It shall be understood that the burden of proof for an "equal" product shall be and remain the sole responsibility of the bidder. The County's failure to object to a manufacturer shall not constitute a waiver of any of the requirements of the contract documents, and all products furnished by the listed manufacturer must conform to such requirements. The County's decision of approval or disapproval of a proposed substitution shall be final.
13. **QUALITY:** All materials used for the manufacture or construction of any supplies, materials, or equipment covered by this bid shall be new. Unless otherwise specified in bid, products bid must be new, the latest model, the best quality, and the highest grade workmanship.
14. **ACCEPTANCE OF MATERIAL:** The goods and/or services delivered as a result of this bid shall remain the property of the seller until a physical inspection is made, and thereafter accepted to the satisfaction of the County. In the event the goods and/or services supplied to the County are found to be defective or do not conform to specifications, the County reserves the right to cancel the order upon notice (verbal or in writing) to the seller and return goods to seller at the seller's expense.
15. **COPYRIGHTS OR PATENT RIGHTS:** The bidder certifies by submission of bid that there has been no violation of copyrights or patent rights in manufacturing, producing, or selling the product or services shipped or ordered as a result of this bid. The successful bidder shall, at his own expense, defend any and all actions or suits charging such

infringement, and will save Chesterfield County, its officers, employees, and agents harmless from any and all liability, loss, or expense incurred by any such violation.

16. **SAMPLES:** Evidence in the form of samples may be requested if brand being quoted upon is other than as specified. The County reserves the right to request that such samples be furnished at the time of bid opening. The County also reserves the right to request samples after the date of bid opening. Requested samples shall be furnished free of expense to the County and if not used in testing or destroyed, will, upon request at the time of submission of sample, be returned at the bidder's expense.
17. **TAXES:** Chesterfield County is exempt from payment of Federal Excise Tax and State and Local Sales and Use Tax on all tangible personal property purchased or leased by Chesterfield County for its use or consumption. Tax exemption certification will be furnished upon request. Sales tax, however, is paid by Chesterfield County on materials and supplies that are installed by a contractor and become a part of real property. Contractors are not exempt from paying taxes on these categories, as they are considered to be a cost of doing business and should be considered in pricing when preparing a bid.
18. **LICENSES, PERMITS, AND FEES:** All bids submitted shall have included in price the cost of any business and professional licenses, permits, or fees required by Chesterfield County or the Commonwealth of Virginia.
19. **SIGNED BID CONSIDERED AN OFFER:** This signed bid shall be considered an offer on the part of the bidder and shall be deemed accepted upon approval by Chesterfield County. In case of default by the successful bidder, or failure to deliver the goods and/or services ordered by the time specified, the County may terminate the purchase order and/or contract, and after due notice (verbal or in writing) may procure them from other sources and hold the defaulting bidder liable for any resulting additional cost.
20. **QUALITY EXPECTATION STATEMENT:** Chesterfield County, through its "Total Quality Improvement" initiative, is a recognized leader in providing quality products and services at the most effective cost possible. Therefore, the County fully expects, requires, and shall hold all Contractors, and all agents, staff, representatives, and subcontractors of the Contractor, responsible for, and accountable to, the highest quality standards of professional workmanship, products and services. In the spirit of the County's total quality improvement initiative, the Contractor shall be expected to become a member of the team and perform or provide all work, services and products with a target of "zero defects - zero rework".
21. **FACTORS OTHER THAN PRICE IN AWARD DECISION:** The following factors in addition to price (as they apply) shall be a consideration in the award decision:
  - a. The ability to provide references which may substantiate past work performance and experience in the type of work required for the contract. The lowest responsive bidder(s) may be required to furnish a contractor qualifications statement, to include references, prior to any such award. The County may contact all references furnished by bidders. The right is further reserved by the County to contact references other than, and/or in addition to, those furnished by the bidder. If, in the sole opinion of the County, a bidder is determined to be non responsible as a result of any investigation conducted by or for the County, award will not be made to that bidder.
  - b. The quality of performance/workmanship of previous contracts for goods and/or services delivered to or performed for the County.
  - c. The timely completion of previous contracts for services or the timely delivery of past orders for goods.
  - d. The sufficiency of financial resources and its impact on ability of the bidder to perform the contract or provide the services.
  - e. The County reserves the right, at its option, to conduct on-site inspections of any bidder's facilities prior to award. The results of any such inspection will be considered by the County in determining bidder's capabilities of successfully administering the contract.

- f. The ability and availability of the bidder to provide both quality and timely maintenance, service, and/or parts.
  - g. The resale value, life cycle costing and value analysis of a product.
  - h. The availability and capability of local and regional vendor support as it affects the quantity, quality, and timeliness of the goods and/or services.
  - i. Timely delivery of goods or timely completion of services as stated by bidder.
  - j. Substantial compliance or noncompliance with specifications set forth in bid as determined by the County.
  - k. Inventory capability as it relates to a particular bid.
  - l. Results of product testing.
22. **STATE REGISTRATION OF CONTRACTORS (IF APPLICABLE):** Attention is directed to Chapter 11, Title 54.1 of the *Code of Virginia* (Re: State registration of contractors when applicable), which requires that all bidders shall show evidence of the proper license under the provision of this chapter before such bid is considered.
23. **ADDENDA:** Any changes or supplemental instructions to this Invitation for Bid shall be in the form of written addenda. All addenda are downloadable from the Purchasing Department web site at [www.chesterfield.gov/Purchasing.aspx](http://www.chesterfield.gov/Purchasing.aspx). Each bidder is responsible for determining that all addenda issued have been received and shall acknowledge receipt of all addenda in the space provided within the Pricing Schedule or by returning a copy of each signed addendum. Failure to do so may result in rejection of the bid. All addenda so issued shall become part of the IFB and any resulting contract documents.
24. **PROPRIETARY INFORMATION:** Section 2.2-4342-F of the *Code of Virginia* states: "Trade secrets or proprietary information submitted by a bidder, offeror, or contractor in connection with a procurement transaction or prequalification application submitted pursuant to subsection B of 2.2-4317 shall not be subject to the Virginia Freedom of Information Act (2.2-3700 et seq.); however, the bidder, offeror, or contractor shall (i) invoke the protections of this section prior to or upon submission of the data or other materials, (ii) identify the data or other materials to be protected, and (iii) state the reasons why protection is necessary." Bids/proposals not in compliance with section 2.2-4342F will be subject to disclosure.
25. **GOVERNING LAW:** Any contract resulting from this Invitation to Bid shall be governed by the provisions hereof and by the laws of the Commonwealth of Virginia. Any dispute arising out of this Contract shall be resolved in the Courts of the Commonwealth of Virginia, in and for Chesterfield County.
26. **TIE BIDS:** In the case of a tie bid, the County may give preference to goods, services, and construction produced in the County or provided by persons, firms or corporations having principal places of business in the County. If such choice is not available, preference shall then be given to goods and services produced in the Commonwealth pursuant to Section 2.2-4324 of the Code of Virginia. If no County or Commonwealth choice is available, the tie shall be decided by lot.
27. **NONASSIGNMENT:** Parties to any resulting contract shall not assign the contract without written consent of the other(s). If any party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the contract.
28. **MODIFICATION:** The resulting contract shall not be amended, modified, or otherwise changed except by the written consent of the Contractor and the County given in the same manner and form as the original signing of the Contract.
29. **AUDIT OF VENDOR RECORDS:** The County reserves the right to audit all vendor records in contracts where payments are based on contractor's records of time, salaries, materials, or actual expense.
30. **NEGOTIATION:** If the bid from the lowest responsible bidder exceeds available funds, the County may negotiate with the low bidder to obtain a contract price within available funds.

31. **SECTION 2.2-4311 CODE OF VIRGINIA:** Every contract for goods or services over \$10,000 shall include the following provisions:

1. During the performance of this contract, the Contractor agrees as follows:
  - a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
  - b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
  - c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
2. The Contractor shall include the provisions of the foregoing paragraphs a, b, and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

32. **APPROPRIATION OF FUNDS:** The continuation of the terms, conditions, and provisions of any resulting contract beyond June 30 of any year, the end of the County's fiscal year, are subject to approval and ratification by the Chesterfield County Board of Supervisors and appropriation by them of the necessary money to fund said contract for each succeeding year.

33. **SCHOOL BOARD:** When goods and/or services are for the benefit of Chesterfield County Schools, the contract shall be entered into on behalf of the Chesterfield County School Board.

34. **REQUIREMENTS CONTRACTS:**

- a. Whenever a bid is sought seeking a source of supply for a requirements contract for goods and/or services, the quantities or usage shown are estimates only. No guarantee or warranty is given or implied by Chesterfield County as to any minimum or total amount that may or may not be purchased from any resulting contracts.
- b. The County reserves the right, at its sole option, to renew the contract for consecutive terms.
- c. The County reserves the right to award bids for requirements contracts based on the pricing of the initial term of the contract or any combination of initial and renewal terms.
- d. The County may award a bid to a single contractor or to multiple contractors.
- e. The County reserves the right not to renew the contract at the end of the initial term or any subsequent term.
- f. The County reserves the right to terminate the contract upon written notice to the contractor(s).
- g. In the event that a requirements contract is awarded for goods and/or services, the County reserves the right to bid individual bulk purchases if the County deems it will best serve their interest.
- h. It is understood and agreed to between the parties in a resulting contract that Chesterfield County shall not be obligated to purchase or pay for materials under such contract unless and until they are ordered and delivered.
- i. Bids based on a firm price or those including a "downward escalator" clause for a requirements contract term may be given preference over lower ones bearing an "escalator" clause.

- j. The County has the right to extend this contract up to and not to exceed one hundred eighty (180) days following any term on the contract.

**35. SECTION 2.2-4312 CODE OF VIRGINIA - DRUG FREE WORKPLACE**

During the performance of this contract, the contractor agrees to:

- a. Provide a drug-free workplace for the contractor's employees
- b. Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition
- c. State in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace
- d. Include the provisions of the foregoing clauses in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

- 36. **ENVIRONMENTAL MANAGEMENT:** Contractor shall be responsible for complying with all applicable federal, state, and local environmental regulations, if any. Additionally, the Contractor must meet all Chesterfield County Environmental Management System (EMS) requirements. For questions or additional information, contact the Office of Environmental Management at (804)717-6531.
- 37. **SECTION 2.2-4343.1 CODE OF VIRGINIA:** Chesterfield County does not discriminate against faith-based organizations.
- 38. **COOPERATIVE PROCUREMENT (Use of contracts by other public bodies):** This procurement is being conducted by Chesterfield County in accordance with the provisions of 2.2-4304 *CODE OF VIRGINIA*. Except for contracts for architectural and engineering services, if agreed to by the contractor, other public bodies may utilize this contract. The Contractor shall deal directly with any public body it authorizes to use the contract. Chesterfield County, its officials and staff are not responsible for placement of orders, invoicing, payments, contractual disputes, or any other transactions between the Contractor and any other public bodies, and in no event shall the County, its officials or staff be responsible for any costs, damages or injury resulting to any party from use of a Chesterfield Contract. Chesterfield County assumes no responsibility for any notification of the availability of the contract for use by other public bodies, but the Contractor may conduct such notification.
- 39. **CONTRACTOR BACKGROUND CHECKS:** In order to preserve the integrity and security of county government operations, contract workers may be required to undergo a criminal background check conducted by Chesterfield County. The County will conduct these checks for any worker it believes will have unsupervised access to County designated Security Sensitive areas. Contract workers providing goods, services or construction in these designated areas are required to confine themselves to the area of the work. Based on the results of the background check, the contract worker may be disqualified from providing work/services for Chesterfield County.
- 40. **SENSITIVE INFORMATION HANDLING:** Any information in the possession of the county/schools which is specific to a student, citizen, county/school business function, private business entity or other government entity which is not generally available to the public shall be designated Sensitive Information. Contract workers will under no circumstances remove Sensitive Information from county facilities. Any Sensitive Information which must reside

temporarily on a hard drive or portable storage device (USB Key, CD ROM, memory card, etc.) for processing must remain within the county facility. No Sensitive Information may be remotely accessed by contract workers by dial in, VPN, web interface or other means without expressed consent of the department head and the Information Security Manager (county) or Director of Technology (schools). Any access to county/schools information by contract workers from outside the county intranet shall be in accordance with existing Information Systems Technology (IST)/Chesterfield County Public Schools (CCPS) Technology department security policies and procedures. Contract worker network connected computer equipment will be subject to all applicable IST/CCPS policies and procedures. Any exception to this application of policies shall be approved by the CCPS Department of Technology/county Information Security Manager and Chief Information Officer or designees.

41. **PRECEDENCE OF TERMS AND CONDITIONS:** Any and all Special Terms and Conditions contained in this Invitation for Bid that may be in variance or conflict with these General Terms, Conditions, and Instructions shall have precedence over these General Terms, Conditions, and Instructions. If no changes or deletions to General Terms, Conditions, and Instructions are made in the Special Terms and Conditions, then the General Terms, Conditions, and Instructions shall prevail in their entirety.
42. **VENDOR REWARDS/GIFT PROGRAMS:** It is the policy of the County not to participate in any rewards programs offered by vendors and not to accept any gifts or gift cards, or other rewards from vendors for purchases made by the County. If you customarily provide, or if you plan to provide, rewards programs, gifts or gift cards, or other rewards to your customers for purchases made by such customers, you must identify this fact in your bid and demonstrate in the bid how you have applied the value of such rewards to a reduction in the price of the goods and/or services being offered to the County.
43. **SECTION 2.2-4311.1 CODE OF VIRGINIA – ILLEGAL IMMIGRANTS:** The Contractor agrees that he does not, and shall not during the performance of this contract knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

Revised: July 14, 2009

CHESTERFIELD COUNTY PURCHASING DEPARTMENT  
CHESTERFIELD, VIRGINIA 23832-0001  
(804) 748-1617

IFB Prepared By:

**Harold F. Leach, C.P.M., CPPB, VCO  
Senior Contract Officer**

Invitation for Bid Number:

**09-9903**

July 23, 2009

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Sealed bids, subject to the specifications and conditions contained herein and attached hereto, will be received in the Purchasing Department, until, but no later than **2:00 p.m.** Local Time Prevailing, **August 21, 2009**, and then publicly opened and read aloud for **obtaining pricing and delivery for furnishing three (3) Goulds model 12x10x17, 8100 series Pumps or equal.**

**IMPORTANT NOTIFICATION:**

**The Purchasing Department will be moving from its current location during the month of August and will no longer be located in the 5-Story Administration Building in Room 402. The exact move date has not been determined at this time. The street address will remain unchanged and the new location is Room 118 on the first floor of the three story building adjacent to the 5-Story Administration Building (enter through lobby of 5-Story building). Bidders who elect to hand deliver their bids on the day of the bid opening are cautioned to allow extra time to assure timely receipt of the bid.**

If you are an individual with a disability and require a reasonable accommodation, please notify the Purchasing Department (804) 748-1617, three working days prior to need.

To be considered, your bid must be submitted on a copy of this Invitation for Bid. Bidders shall sign this form in the space provided on the Terms and Signature Sheet and return bid document to: Chesterfield County Purchasing Department, 9901 Lori Road, P.O. Box 51, Chesterfield, VA 23832-0001. **Mark outside of your envelope with Invitation for Bid #09-9903 and opening date of bid.**

**Bids, to include addenda or changes to a response, shall not be accepted via Fax machine or by Internet E-mail.**

Time is of the essence and any bid received after the announced time and date for submittal, whether by mail or otherwise, will be rejected. The time of receipt shall be determined by the time clock stamp in the Purchasing Department. Bidders are responsible for ensuring that their bids are stamped by Purchasing Department personnel before the deadline indicated. **Late bids received will be so noted in the bid file in order that the vendor's name will not be removed from the subject commodity/service list.**

Nothing herein is intended to exclude any responsible vendor, his product or service or in any way restrain or restrict competition. All responsible vendors are encouraged to bid.

For information pertaining to the bid tabulation and award on this procurement transaction, bidders may access public notification electronically at [www.chesterfield.gov/Purchasing.aspx](http://www.chesterfield.gov/Purchasing.aspx).

**COMMITMENT TO DIVERSITY AND CHESTERFIELD BUSINESSES**

Chesterfield County is a growing progressive community consisting of an increasingly diverse population. This diversity provides for a dynamic and robust community that promotes growth. Chesterfield County believes that all of its citizens should benefit from this economic growth without regard to race, color, religion or economic status. The county is committed to increasing the opportunities for participation of minority-owned businesses, women-owned businesses, and businesses located in Chesterfield County to ensure diversity in its procurement and contract activities. These businesses are encouraged to respond to all Invitations for Bids and Requests for Proposals. In addition, the county strongly encourages each contractor and/or supplier with which the county contracts to actively solicit minority-owned businesses, women-owned businesses, and businesses located in the county as subcontractors/suppliers for their projects.

Upon award/completion of work, the County will require the contractor to furnish data regarding subcontractor/supplier activity with Minority-Owned Businesses (MOB), Women-Owned Businesses (WOB), and Chesterfield Businesses (CB) on a Certification of Subcontractor/Supplier Activity form. The form will be provided to the contractor by the Purchasing Department. This information will enable the County to document the dollar level of activity and measure the success of its purchasing and contracting efforts in this endeavor.

**DEFINITIONS:**

Women-Owned Business (WOB) - a business concern that is at least 51% owned by one or more women who are U. S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interests is owned by one or more women who are citizens of the United States or non-citizens who are in full compliance with the United States immigration law, and both the management and daily business operations are controlled by one or more women who are U.S. citizens or legal resident aliens. (*Code of Virginia 2.2-1401*)

Minority-Owned Business (MOB) – a business concern that is at least 51% owned by one or more minority individuals or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest in corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals and both the management and daily business operations are controlled by one or more minority individuals. (*Code of Virginia 2.2-1401*)

Chesterfield Business (CB) - any private business enterprise, located within the jurisdictional boundaries of Chesterfield County.

## **PURPOSE**

The purpose of this Invitation for Bid (IFB) is to obtain pricing and delivery for furnishing three (3) Goulds model 12x10x17, 8100 series pumps or equal. These pumps will replace pumps currently in service at Chesterfield County's Happy Hill Pump Station.

## **SPECIAL CONDITIONS**

### **Inquiries**

Any questions which may arise as a result of this solicitation may be addressed to Harold Leach, Senior Contract Officer, at (804) 748-1702, or by email to [purchasing@chesterfield.gov](mailto:purchasing@chesterfield.gov). Inquiries must be received at least 7 business days prior to the due date in order to be considered. Contact initiated by a bidder/offeror concerning this solicitation with any other County representative, not expressly authorized elsewhere in this document, is prohibited. Any such unauthorized contact may result in disqualification of the bidder/offeror from this transaction.

### **Site Visit – MANDATORY**

A **mandatory site visit** will be conducted for firms interested in submitting bids. The purpose of the site visit is for interested firms to take measurements of the existing pumps and appurtenances to ensure pumps bid and subsequently furnished will fit the existing motors, couplings, and infrastructure. Any costs to the County as a result of the pumps not fitting will be the responsibility of the contractor. The designated date for the mandatory site visit will be **August 11, 2009 at 8:00 A.M.** Bidders **MUST** attend the site visit in order to be considered for award. Attendees will meet at Happy Hills Pump Station, 15801 Jefferson Davis Highway, Colonial Heights, VA 23834.

### **Delivery Requirements**

Inside delivery required to:

Chesterfield County Utilities Operations Center  
9200 Public Works Road  
Chesterfield, VA 23832

### **Brand Names**

The manufacturer listed in the Pricing Schedule has been named to convey the general style, type, character and quality of the equipment. Bids from persons or firms based on manufacturers which conform in all material respects and that the County in its sole discretion determines to meet or exceed the specifications, considering quality, workmanship, economy of operation and suitability for the purpose intended, shall be accepted. **Pumps bid must fit existing motors, couplings, and infrastructure presently at the site.**

### **Product Information**

If bidding other than as specified, the bidder shall include complete specifications and cut sheets with the bid and clearly and specifically identify the product being offered and include a detailed comparison between the product specified and the product bid upon to enable the County to determine if the product offered meets the requirements of the solicitation. Failure to do so may cause the bidder to be considered non-responsive and the bid to be rejected for specific item(s) or in its entirety.

## **SPECIFICATIONS**

### **SECTION 11211**

#### **HORIZONTAL SPLIT CASE CENTRIFUGAL PUMPS**

##### **[Pump Replacement Only]**

### **PART 1 - GENERAL**

#### **1.01 SCOPE**

- A. The pump manufacturer or local representative (hereafter referred to as the "Contractor") shall furnish the pumps as specified herein. The term "pump" shall include only the pump without the motor, baseplate, or other appurtenances.

#### **1.02 EQUIPMENT DESIGN**

- A. Equipment design, workmanship, testing and operation shall be as specified herein.
  - 1. Approval of submittals shall not be required as long as the exact brand and model of pump is supplied as specified.

#### **1.03 SUBMITTALS**

- A. Shop drawings, including dimensioned drawings, parts and material list and descriptive literature shall be submitted at delivery. The Contractor shall include in the shop drawing submission for the pumping unit, data showing physical characteristics, pump operating curves showing head vs. capacity, pump efficiency vs. capacity, horsepower vs. capacity, and NPSHR vs. capacity. Operating curves shall be provided for the rated speeds as specified herein. At a minimum provide minimum and maximum speeds.
- B. Provide six (6) bound copies of operation and maintenance manuals at delivery.

#### **1.04 MANUFACTURER'S INSPECTION AND START-UP**

- A. The Contractor shall furnish the services of the pump manufacturer's qualified field representative to inspect the equipment after installation, instruct County personnel in its operation and maintenance, and supervise its initial operation for a minimum of three days. It is anticipated that each of the three pumps will be installed separately requiring installation time for the next pump between visits.

#### **1.05 MANUFACTURER'S CERTIFICATE**

- A. The Contractor shall furnish the Engineer with a Manufacturer's Certificate, certifying the pumps have been installed in a complete and satisfactory manner ready for operation.

#### **1.06 WARRANTY**

- A. The manufacturer shall provide a warranty on the pump. The manufacturer shall guarantee for one year of operation from the time the equipment is placed in service that the equipment supplied shall be free from defects in design, workmanship or materials. In the event that any component fails to perform as specified or as required to make the

system operate properly, or is defective, the manufacturer shall promptly replace the defective part and adjust the system to operate properly at no cost to the County.

#### 1.07 QUALITY CONTROL

- A. The equipment specified shall be the products of reputable manufacturers who have been regularly engaged in the design, manufacture and furnishing of horizontal split case centrifugal pumps for at least ten (10) years.

### PART 2 - MATERIALS

#### 2.01 DESIGN CRITERIA

- A. The pumps shall meet the following design criteria. The pumping units shall be manufactured by **Goulds (ITT A-C Pump)**, or equal. The model shall be 12x10x17 8100 series or equal.

|                               |               |
|-------------------------------|---------------|
| Design Point Capacity         | 4,000 gpm     |
| Design Point Total Head       | 165 feet      |
| Design Point Efficiency (min) | 80%           |
| Design Point NPSHR (max)      | 40 feet       |
| Configuration                 | 150           |
| Impeller Dia.                 | 15.8 inch     |
| Shutoff Head (min.)           | 235 feet      |
| Suction Size (min)            | 12 inch       |
| Discharge Size (min)          | 10 inch       |
| Motor Horsepower (max)        | 200           |
| Full Speed (nominal)          | 1780 rpm      |
| Minimum Speed (nominal)       | 1780 rpm      |
| Pump Operation                | Potable Water |

#### 2.02 PUMPING UNIT DESIGN

- A. The amplitude of vibration of the pumping unit, when operating at its rated speed shall not, when measured in the field, exceed the values allowed by the latest edition of the Hydraulic Institute for the type of pump furnished. Measurements shall be made both in a horizontal and vertical plane. Measurements shall be taken at the locations prescribed by the Hydraulic Institute.
- B. All bearings for pumps and motors specified herein shall be designed and constructed for a L-10 life of not less than 100,000 operating hours.
- C. The Contractor shall request baseplate mounting dimensional data from the County in order to verify that the new pumps will in fact mount to the existing baseplates and align with the existing motors and shafts.

## 2.03 PUMPING UNIT

- A. The pump shall be the centrifugal, horizontal suction, horizontal discharge, single stage, double suction, double volute type, with horizontal split casing. The unit shall be complete with pump.
- B. Casings:
1. Casings shall be gray iron castings conforming to ASTM A48 Class 40 minimum, or ductile iron conforming to ASTM A536 Grade 65-45-12 and shall be free from injurious defects. Surfaces shall be free from burnt-on sand and reasonably smooth. Risers, fins and projections used to facilitate the making of the casting shall be removed. Surface imperfections or minor defects over an area of not more than 5 square inches may be repaired by welding or threaded plugging provided the depth of the plug required is not greater than 50 % of the thickness of the section and the diameter of the plug does not exceed the depth of the plug. The manufacturer shall notify the County before attempting repairs to castings with any defects other than those defined above as minor. The Owner reserves the right to examine and reject any casting with any defect other than those described as minor. Castings shall be hydrostatically tested at a minimum pressure equal to twice the design head (TH) or one and one half (1-1/2) times the shut-off head whichever is greater. Certification by the manufacturer shall be furnished that hydrostatic tests in conformity with these specifications have been performed.
  2. The pump casings shall be horizontally split and the horizontal parting line shall be provided with flanges and an appropriate number of hexagonal head bolts or studs with hexagonal nuts. The parting flange faces shall be machined to a truly flat surface and scraped, if necessary, so that the flange joints shall be made tight by means of a pre-cut gasket; the use of red lead or similar material to make these joints tight will not be permitted. The backs of the flanges shall be spot-faced at the bolt holes and the edges shall match up so as to show no jog or off-set when the casings are bolted together. The alignment of casing halves shall be assured by the use of dowel pins located at diametrically opposite points of the flanges. Jack bolts shall be provided to break the seal for disassembly.
  3. Each upper casing half shall be provided with eye bolts, or other suitable arrangements for lifting, connections for air vent and seal water connections to the stuffing boxes. Stuffing box connections shall be made of not less than 1/4 inch brass piping or copper tubing, bent on easy curves to suit the points at which they originate and terminate, and shall be fitted with brass stop valves and solid brass unions, all completely finished and polished. The air vent connection at the top of the casing shall be 1-1/2 inch and provided with a lever handle petcock. Cocks shall be of brass, finished and polished all over.
  4. The lower casing half shall be provided with horizontal suction and discharge connections which shall be flanged and faced. Flanges shall meet the requirements of ANSI/AWWA C110/A21.10, having a water working pressure of 250 psi, and drilled and faced with same dimensions as Class 125 ANSI B16.1 flanges. On the horizontal and vertical centerline of the suction and discharge connections near the flange (or tapped flanges may be used), there shall be provided plugged reinforced taps, 3/8 inch pipe size, for pressure gage connections. Tapped and plugged holes shall also be provided in the lowest part of the casings for dewatering the pump. The lower casing halves shall be provided

with integrally cast feet, with spot-faced holes and threaded dowel pins for securing the casings to the baseplate. Threaded dowel pins shall also be used for securing the motor mounting to the bedplate.

- C. Impeller and Case Wearing Rings: The suction eyes of the impeller shall be fitted with one (1) piece bronze (ASTM B148, Alloy 952) wearing rings. The rings shall be readily removable and fastened to the impeller in such a manner as will prevent rotative or axial movement, regardless of the direction of rotation of the pump. One-piece bronze (ASTM 584, Alloy 875) wearing rings to match the impeller rings shall be fitted into recesses machined within the top and bottom casing halves and secured against rotation.
- D. Impeller: The impeller shall be of cast bronze, double suction enclosed type, with all surfaces finished. The impeller shall be accurately balanced to avoid vibration and hydraulically balanced to prevent end thrust. The impeller shall be secured to the shaft with suitable provisions made to maintain axial position. The rotor assembly shall be able to withstand 125% of normal forward speed in a reverse direction without damage to the pump.
- E. Shaft: The shaft shall be made of 316 stainless steel, ground and polished all over. The ends shall retain the original centers upon which the shaft was turned and ground, and the outboard end shall be exposed and contain an ample recess for the insertion of a hand mechanical tachometer. Where the shaft emerges from the bearings, it shall be fitted with grooves or collars to prevent oil from creeping along the shaft to outside the bearing brackets and shall also be provided with suitable collars outside the brackets to prevent the entrance of water or other foreign substances to the interior of the bearing houses.
- F. Shaft Sleeves: The shaft shall be protected by renewable one-piece machined cast bronze (ASTM B584, Alloy 932) sleeves, extending from the impeller hub to the outside of the stuffing boxes. Sleeves shall be closely fitted to the shaft and held in place against the impeller hub in a manner standard with the pump manufacturer.
- G. Bearings: The shaft shall be supported by anti-friction type bearings. Bearings shall be easily removable without disturbing any parts of the pump other than the bearings caps. The thrust bearings shall be of the anti-friction type, adequate to withstand all thrusts, and shall be designed and constructed to maintain the shaft in a fixed axial position without undue heating or the necessity of adjustment or attention. Bearings shall be designed and constructed for a L-10 life of not less than 100,000 operating hours.
- H. Bearing Frames: The bearing frames and housings may be of the manufacturer's standard design, and shall be of sufficient size and strength to adequately support the bearings for the 100,000 hours life specified above.
- I. Sealing: Sealing shall be by mechanical seal. Single cartridge mechanical seals shall be provided. The mechanical seals shall have materials to suit potable water service. Mechanical seals shall be readily and commercially available from third party sources other than the pump and motor manufacturer. Seals shall have flush water supplied by pipe connections specified above. Mechanical seals shall be Chesterton Model 440, similar model of John Crane, or equal.

## 2.04 SHAFT COUPLING

- A. The County will provide information on the type and size of shaft coupling so that the new pump shaft will match and align to the existing motor shaft. This information will be

provided to the pump manufacturer after the award of the project.

## 2.05 SPARE PARTS

A. The following spare parts shall be provided for each pump:

1. One (1) full set of gaskets
2. One (1) set of mechanical seals
3. One (1) complete set of wear rings
4. One (1) complete set of pump bearings

## PART 3 - EXECUTION

### 3.01 INSTALLATION

A. The pump will be installed by the County in accordance with the manufacturer recommendations and as specified herein.

### 3.02 TESTING OF PUMPS, GENERAL

A. The pump and impeller shall be tested in accordance with the requirements of the latest edition of the Hydraulic Institute Standards and shall be certified by the manufacturer that they meet the performance and efficiency requirements specified herein at the specified pumping speeds.

1. All testing shall be completed following the application of the interior Coating.
2. All certified pump curves shall be made on the coated pump.

### 3.03 FACTORY CERTIFIED TEST

- A. Certified factory test shall be conducted on the pumping units at the manufacturer's facility. Test shall be certified and results shall be submitted to the County at delivery.
- B. Certified pump test shall demonstrate performance of the pump at the specified speeds. Test shall include flow characteristics, horsepower requirements, efficiency and NPSHR over the capacity range from shut-off to the design points and at the various speeds shown. As a minimum, pumping units shall be tested at the minimum and maximum speeds. The pump shall be tested with motor to be furnished in the field. The manufacturer's standard test driver shall not be used. Test results shall be submitted to the Engineer and shall include, tabulated data and results plotted as head vs. capacity, pump efficiency vs. capacity, brake horsepower vs. capacity, NPSHR (Required) vs. capacity, and amplitude of vibration at a frequency corresponding to the various speeds of the pump. All test results shall be signed and sealed by a registered professional engineer.
- C. Should the pumping units fail to meet the specified requirements, the manufacturer shall make all necessary modifications to the unit and shall conduct all additional shop certified tests as necessary to ensure full compliance with the Contract Documents. Conducting such additional shop certified tests shall be borne by the Contractor and shall be at no

additional cost to the Contract. The Contractor shall make note that any modification and additional testing which may be required shall be performed as expeditiously as possible to avoid exceeding the total contract time.

3.04 FACTORY WITNESSED TESTING

- A. Factory witnessed tests shall not be required.

3.05 FIELD TESTING OF PUMPING UNITS

- A. When the pump, motor, and electrical controls and all related piping have been installed, the County will conduct a field test of the pumping unit in the presence of, the Contractor and as directed by, the Engineer. Field tests of head versus capacity shall be made. Field tests to determine the amplitude of vibration shall also be taken. All field testing need not repeat factory performance tests previously done, but shall be sufficiently complete to demonstrate that the pumping unit is operating in a satisfactory manner, in accordance with the requirements of these specifications and in such a manner to make possible the issuance of the "Manufacturer's Certificate."

3.06 PAINTING/COATING

- A. Exterior: The pump exterior shall be factory primed and painted per paint manufacturer's standard specification. All pumps shall be painted dark blue (Tnemec color 11SF Safety Blue). Use a 3 part epoxy paint system by Tnemec or equal.
- B. Interior: The pump interior, including the casing and impeller, shall be coated with Belzona® 1341 (Supermetalgilde) NSF or approved equal per Section 09970 - Interior Potable Water Pump Coating. This product is used for improving the efficiency of pumps and for protecting their surfaces from the effects of erosion-corrosion and is certified to ANSI/NSF Standard 61. The area to coat is limited to the interior of the pumps.

END OF SECTION

## SECTION 09970

### INTERIOR POTABLE WATER PUMP COATING

#### PART 1 – GENERAL REQUIREMENTS

##### 1.01 SUMMARY

- A. This specification covers the basic requirements for surface preparation, application, and inspection of a coating material, the Belzona® 1341 (Supermetalgilde) NSF or approved equal. This product is used for improving the efficiency of pumps and for protecting their surfaces from the effects of erosion-corrosion and is certified to ANSI/NSF Standard 61. The area to coat is limited to the interior of the pumps.
- B. This specification particularly applies to the recommended manner by which the Belzona® 1341 (Supermetalgilde) NSF is to be applied and used. It does not aim to supersede the recommended procedures of any other product or repair option being implemented up to this date.
- C. This specification aims to provide the recommended procedures for applying the Belzona® 1341 (Supermetalgilde) NSF as recommended by the coating manufacturer.

##### 1.02 TERMS AND DEFINITIONS

- A. The terms in bold are included in the body of this document and are used to signify the following:
  - 1. **County:** Chesterfield County, Virginia, a political subdivision of the Commonwealth of Virginia, and its duly authorized officials, agents and employees.
  - 2. **Applicator:** This is the person or firm responsible for the coating work.
  - 3. **Engineer:** The consulting engineer who has been designated by the County as engineer for the project, and the Engineer's authorized agents, inspectors or representatives.
  - 4. **Coating supplier:** This is the party that provides the coating material.
  - 5. **Coating manufacturer:** This is the party that manufactures, fabricates, or produces the coating material.

##### 1.03 REQUIREMENTS

- A. In the case of questions or vagaries concerning the proper surface preparation, application, and inspection of the coating material, the material's "Product Specification Sheet" and "Instructions for Use" shall supersede any existing document or recommendation.

## PART 2 – SUPPORTING DOCUMENTS

### 2.01 STANDARDS

A. Note: All the standardized documents stated herein refer to the latest approved version.

1. American Society for Testing and Materials (ASTM)
  - a. ASTM D 4285 Standard Test Method for Indicating Oil and Water in Compressed Air
2. Code of Federal Regulations (CFR)
  - a. 29 CFR 1910.134 Respiratory Protection
  - b. 29 CFR 1910.1000 Air Contaminants
  - c. 29 CFR 1910.1200 Hazard Communications
3. NACE International – The Corrosion Society (NACE)
  - a. NACE Standard RP0287 Standard Recommended Practice Field Measurements of Surface Profile of Abrasive Blast Cleaned Steel Surfaces Using a Replica Tape
  - b. NACE SP0188 Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates
4. SSPC – The Society for Protective Coatings (SSPC)
  - a. SSPC Guide to Vis 1 Guide to Visual Standards for Abrasive Blast Cleaned Steel
  - b. SSPC-Vis Visual Standards for Abrasive Blast Cleaned Steel (Standard Reference Photographs)
  - c. SSPC-SP1 Solvent Cleaning
  - d. SSPC-SP2 Hand Tool Cleaning
  - e. SSPC-SP7 Brush Off
  - f. SSPC-SP10 Near-White Metal Blast Cleaning.
  - g. SSPC-PA1 Shop, Field and Maintenance Painting of Steel
  - h. SSPC-PA 2 Measurement of Dry Coating Thickness with Magnetic Gauges
  - i. SSPC-AB 1 Mineral and Slag Abrasives

### 2.02 MANUFACTURER'S LITERATURE

A. Note: The manufacturer's literature stated herein refers to the latest approved version.

1. Coating Material's Product Specification Sheet (PSS)
2. Coating material's Instructions for Use (IFU)
3. Coating material's Material Safety Data Sheet (MSDS)
4. Cleaning-degreasing material's Material Safety Data Sheet (MSDS)
5. Belzona® Know-How System Leaflet CEP-1 "For rebuilding pump cutwaters, flow straighteners, diffuser/impeller/rotor vanes"
6. Belzona® Know-How System Leaflet CEP-5 "For repair of general erosion damage"

### **PART 3 – PRE-JOB COORDINATION**

#### **3.01 COATING MATERIAL**

This specification, along with all relevant job standards for surface preparation, application, and inspection, shall be reviewed and agreed to by the Contractor (pump manufacturer and his representatives), coating applicator, coating supplier and coating manufacturer prior to the coating application.

### **PART 4 - MATERIALS**

#### **4.01 COATING MATERIAL**

- A. The coating material for the pump is the Belzona® 1341 (Supermetalgilde) NSF. The coating material shall be stored no longer than three (3) years in an environment with a temperature between 32°F (0°C) and 86°F (30°C). The coating material shall be stored at a temperature between 68°F (20°C) and 77°F (25°C) at least 24 hours prior to mixing. For other relevant information about the coating material, refer to the material's PSS supplied by the manufacturer.

#### **4.02 CLEANING-DEGREASING MATERIALS**

- A. Suitable cleaning-degreasing materials include Belzona® 9111 (Cleaner Degreaser), methyl ethyl ketone (MEK), and acetone. Any alternative cleaning-degreasing material shall be utilized exclusively if the coating manufacturer permits.

#### **4.03 ABRASIVE MATERIALS**

- A. The abrasive grit used for surface preparation shall meet SSPC-AB1 (Mineral and Slag Abrasives) Class A Grade 3 and the criteria described in the coating material's IFU. Only angular abrasive shall be used.

### **PART 5 – SURFACE PREPARATION**

- A. The internal walls of the pump to be coated shall be sound and pit-free as per OEM. If not, the surface shall be rebuilt prior to coating application in accordance with Belzona® Know-How System Leaflets CEP-1 "For rebuilding pump cutwaters, flow straighteners, diffuser/impeller/rotor vanes", and/or CEP-5 "For repair of general erosion damage".

#### **5.01 PRE-BLASTING PREPARATION**

- A. All adjoining objects and structures shall be fully protected from mechanical damage and ingress of dust from the blast cleaning process.
- B. Blast cleaning shall not be performed when the surface is wet, when the surface temperature is less than 5°F (3°C) above the dew point, or when the relative humidity is higher than 85%.
- C. All sharp edges, fillets, and corners shall be rounded or smoothed by grinding to a minimum radius of 1/8 inch (3mm) in accordance to SSPC-SP2 (Hand Tool Cleaning).

- D. All traces of oil and grease contamination shall be removed from the internal walls of the pump by a suitable cleaning-degreasing material according to SSPC-SP 1 (Solvent Cleaning).
- E. Preheating to remove oil, grease, mill scale, water, and ice may be used provided the pump is preheated in a uniform manner to avoid distorting the metallic surface.
- F. Compressed air used for blast cleaning shall be checked for traces of oil and water at least once each day in accordance with ASTM D 4285 (Standard Test Method for Indicating Oil and Water in Compressed Air).
- G. If the pump has been previously used for handling sea water or any other salt solutions, the internal surfaces shall be allowed to sweat any embedded salts to the surface for at least 24 hours.
- H. Once 5.01 G has been accomplished, a soluble salt detection test shall be carried out to ensure that the concentration of soluble salts on the surface is less than 20 mg/m<sup>2</sup>.
- I. If 5.01 H is not met, the substrate shall be rewashed, brush blasted, left to exude for 24 hours, and re-tested for concentration of soluble salts on the surface. These steps shall be repeated until 5.01 H is met.

#### 5.02 ABRASIVE BLAST CLEANING

- A. The internal surfaces of the pump shall be abrasive blast cleaned with mineral abrasives, slag abrasives, or steel grit in accordance with SSPC-PS 10 (Near White Metal), SSPC Guide to Vis 1, and SSPC Vis Visual Standards (Standard Reference Photographs).
- B. When using steel abrasives, a sufficient quality of steel grit shall be provided to ensure an angular blast profile is achieved.
- C. When blasting equipment is employed using a recycled abrasive working mix, the abrasive working mix shall be maintained free of contaminants.

#### 5.03 VISUAL COMPARATIVE STANDARDS

- A. The blast anchor profile or profile depth shall be measured to be at least 3 mil (75 µm) as per material's IFU. A surface profile tool such as Testex<sup>®</sup> Replica Tape or a dial/digital gauge may be used in accordance with NACE Standard RP0278.

#### 5.04 POST ABRASIVE BLAST CLEANING

- A. After grit blasting, all metallic surfaces to be coated must be free of any loose particles or dust that may result from the abrasive blast cleaning procedure.
- B. If the pump has been previously used for handling sea water or any other salt solutions, the internal surfaces shall be allowed to sweat any embedded salts to the surface for at least 24 hours.
- C. Prior to applying product, pump rotating assembly (i.e., impeller) must be balanced. After coating is applied, pump rotating assembly balance to be confirmed.

**PART 6 - COATING****6.01 ENVIRONMENTAL FACTORS**

- A. The coating material should not be applied if the temperature is below 50°F (10°C) or if the relative humidity is above 90%.
- B. Rain, snow, fog, or mist must not be present.
- C. The substrate must be moisture free before any coating is applied.
- D. The coating material shall not be applied if the working area is likely to be contaminated with grease, oil, or smoke from any adjacent equipment.

**6.02 MIXING**

- A. The mixing ratio of the coating material is 3 parts base: 2 parts solidifier by volume, or 2 parts base: 1 part solidifier by weight.
- B. The coating material shall be mixed until it is homogeneous. If large quantities are required, the use of a mechanical mixer with helical-type blades is recommended.
- C. Mixed coating material should be transferred to a clean container before application in order to eliminate the possibility of applying unmixed material, which may be harbored on the sides and corners of the container used for mixing.
- D. After the base and solidifier have reacted completely, the material has a limited working life based on the ambient temperature. For guidance, refer to the following table:

Table 1. Working life of coating material

| Temperature         | 50°F<br>(10°C) | 59°F<br>(15°C) | 77°F (25°C) | 86°F (30°C) |
|---------------------|----------------|----------------|-------------|-------------|
| Use material within | 70 minutes     | 50 minutes     | 25 minutes  | 16 minutes  |

**6.03 APPLICATION REQUIREMENTS**

- A. Application of the coating material shall be conducted in a manner consistent with the coating material's IFU.
- B. All traces of abrasive and other debris shall be removed prior to any coating operation.
- C. All welds, corners, edges, and hard-to-reach areas shall be stripe coated by brush.
- D. All striping shall be overcoated with the coating material before the overcoat window of the stripe coat material expires. If this overcoat window time is exceeded, the stripe coat shall be allowed to cure sufficiently to tolerate a blast, and shall be roughened and cleaned before proceeding with the application of the coating.
- E. A wet film thickness (WFT) gauge shall be used as the coating is being applied to ensure the recommended thickness is being met.

## 6.04 FIRST COAT

- A. A first coat of the coating material must be applied directly onto the prepared surface with a shortened bristle brush (bristle length may be approximately half of an inch or less from the bristle holder) or an appropriate Belzona<sup>®</sup> applicator.
- B. To achieve the correct film thickness of 10 mils (250  $\mu\text{m}$ ), the practical coverage rate of 19.5 ft<sup>2</sup> (1.8 m<sup>2</sup>) per 750 grams should be obtained.

## 6.05 SECOND COAT

- A. A second coat of the coating material shall be applied as soon as possible after the first coat application and no later than 24 hours.
- B. Should the 24 hour overcoat window be exceeded, the surface must be brush blasted in accordance with SSPS-SP 7 (Brush Off).
- C. To achieve the correct film thickness of 10 mils (250  $\mu\text{m}$ ), the practical coverage rate of 19.5 ft<sup>2</sup> (1.8 m<sup>2</sup>) per 750 grams should be obtained.

## 6.06 POST APPLICATION

- A. Mixing tools should be cleaned immediately after use with an effective solvent.
- B. The coating material shall be allowed to cure as follows:

Table 2. Curing time for coating material

| Temperature | Movement or use involving no loading or immersion | Light loading | Full mechanical/ thermal loading or water immersion | Chemical contact |
|-------------|---------------------------------------------------|---------------|-----------------------------------------------------|------------------|
| 50°F (10°C) | 24 hours                                          | 48 hours      | 14 days                                             | 21 days          |
| 59°F (15°C) | 12 hours                                          | 24 hours      | 7 days                                              | 10 days          |
| 68°F (20°C) | 8 hours                                           | 16 hours      | 3 days                                              | 7 days           |
| 77°F (25°C) | 7 hours                                           | 14 hours      | 2 ½ days                                            | 6 days           |
| 86°F (30°C) | 6 hours                                           | 12 hours      | 2 days                                              | 5 days           |

**PART 7 – QUALITY CONTROL AND INSPECTION**

## 7.01 INSPECTION AND TESTING

- A. *County's inspection:* At the County's request, the procedure shall be inspected from the time of surface preparation to completion of coating application. Lack of inspection by the County shall not relieve the applicator of responsibilities to provide materials and perform work in accordance with this specification.
- B. *Surface preparation inspection:* The anchor profile must be inspected and measured as described in Section 5.03 A. If the anchor profile does not meet the criteria stated in this specification, the surface must be prepared until the correct profile is achieved.
- C. *Mixing:* Batch numbers of both base and solidifier shall be recorded. These numbers can be found impressed on the label of the base and solidifier's containers.

- D. *Coating application inspection:* If inspection is required by the County, coating work not done in the presence of the coating inspector may be rejected. Coating work may also be rejected if it does not comply with this specification. Each coat must be visually inspected for mechanical damage, blisters, cracks, bubbles, and/or voids. If any imperfection is identified, the coating must be repaired immediately. Each coat must be non-destructively inspected for thickness according with SSPS-PA 2, and for pinholes. Inspection for holidays and discontinuities shall be conducted in strict accordance with NACE SP0188. Destructive testing shall be carried out upon coat failures.

#### 7.02 REJECTION

- A. If any coating material and/or coating application do not comply with this specification, the coating material and/or coating application shall be rejected.

#### 7.03 WORKMANSHIP

- A. All work shall be performed in strict accordance with SSPC-PA1 (Shop, Field, and Maintenance Painting of Steel), this specification and the coating supplier/manufacturer's Instructions for Use and Product Specification Sheets for the coating material to be utilized on this project.

#### 7.04 INSPECTION HOLD POINTS

- A. The coating applicator and/or coating inspector shall make the determination to establish hold points throughout the course of the application. These shall include, but may not be limited to the following:
1. Verification of proper ambient conditions
  2. Verification of surface preparation
  3. Verification of coating quality and thickness

### PART 8 - DOCUMENTATION

- A. The coating applicator and/or coating inspector shall keep a detailed and precise log of the application, including, but not limited to the following:
1. Surface Preparation
  2. Ambient Conditions
  3. Coating Quality
  4. Inspections

**END OF SECTION**

**BASIS FOR AWARD**

Award shall be made to the lowest responsive and responsible bidder on a total bid basis.

**PRICING SCHEDULE**

| <u>Item</u>                      | <u>Qty</u> | <u>Description</u>                           | <u>Unit Price</u> | <u>Total Price</u> |
|----------------------------------|------------|----------------------------------------------|-------------------|--------------------|
| 1.                               | 3 ea.      | Pumps, Goulds 12x10x17, 8100 Series or equal |                   |                    |
| Manufacturer and Model Bid _____ |            |                                              |                   |                    |

**DELIVERY/TIME OR PERFORMANCE**

Bidders are required to state the time of proposed delivery or project completion. Unless otherwise specified, bid the earliest delivery/completion possible. Bidders must insert a definitive time frame IN CALENDAR DAYS, within which delivery/completion will be made after receipt of order (ARO). Indefinite terms such as “promptly”, “stock”, “as soon as possible”, etc., will not be given consideration. **THE FAILURE OF A BIDDER TO PROVIDE A DEFINITE DELIVERY TIME WILL RESULT IN THE BID BEING REJECTED AS NONRESPONSIVE IN ITS ENTIRETY OR, WHEN APPLICABLE, FOR THE ITEM SPECIFIED.**

Delivery in calendar days \_\_\_\_\_

**SUBMITTALS**

Bidder has enclosed specifications, cut sheets, and a detailed comparison between the product specified and the product offered if bidding other than specified. \_\_\_\_\_Yes \_\_\_\_\_No

**ADDENDA**

Bidder hereby acknowledges receipt of and incorporation of all requirements of any addenda issued for this Invitation for Bid:

|                    |             |
|--------------------|-------------|
| Addendum No. _____ | Dated _____ |
| Addendum No. _____ | Dated _____ |
| Addendum No. _____ | Dated _____ |

**TERMS AND SIGNATURE SHEET**

**All bids shall be signed on the Terms and Signature Sheet in order to be considered.**

If discounts for prompt payment are offered by the bidder, it is required that a minimum of twenty (20) days be allowed for payment. Discounts for prompt payment will not be considered in the evaluation of bids. Discounts for prompt payment will be shown on the purchase order/contract and taken if invoices are processed and payment made within the stipulated time frame. If discounts are not offered, payment shall be made thirty (30) days after receipt of an accurate invoice by the County. Our terms are \_\_\_\_\_

All prices shall be F.O.B.: Chesterfield County Utilities Operations Center, 9200 Public Works Road, Chesterfield, VA 23832. Freight, delivery costs, and incidental charges shall be included in the bid price(s).

In compliance with this Invitation for Bid #09-9903 and subject to all conditions thereof, the undersigned offers and agrees to furnish any or all items and/or services upon which prices are quoted, at the price quoted as specified.

My signature below certifies:

- I agree to abide by all conditions of this Bid and that I am authorized to sign this Bid.
- the accompanying bid is not the result of or affected by, any act of collusion with another person or company engaged in the same line of business or commerce, or any act of fraud punishable under, Chapter 12, Title 18.2, 498.4 of the *Code of Virginia*, 1950, as amended. Furthermore, I understand that fraudulent and collusive bidding is a crime under the Virginia Governmental Frauds Act, the Virginia Government Bid Rigging Act, the Virginia Anti-Trust Act, and Federal Law and can result in fines, prison sentences, and civil damage awards.
- the accompanying bid is in compliance with the *State and Local Government Conflict of Interests Act 2.2-3100*, supplemented by Article 6, 2.2-4367-69 of the *Code of Virginia*. Specifically, no county employee, county employee's partner, or any member of the county employee's immediate family holds a position with the bidder, offeror, or contractor such as an officer, director, trustee, partner or the like, or is employed in a capacity involving personal and substantial participation in the procurement transaction, or owns or controls an interest of more than five percent.

**Complete Legal Name of Firm:** \_\_\_\_\_

**Order From Address:** \_\_\_\_\_

**Remit To Address:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Name (type/print):** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Fed ID No.:** \_\_\_\_\_ **Phone:** (\_\_\_\_) \_\_\_\_\_ **Fax:** (\_\_\_\_) \_\_\_\_\_

**We hereby provide the following information to Chesterfield County regarding our business. We understand that it is provided for statistical purposes only and all firms submitting bids will receive equal consideration.**

|                                 |                  |                 |
|---------------------------------|------------------|-----------------|
| <b>Minority-Owned Business:</b> | <b>Yes</b> _____ | <b>No</b> _____ |
| <b>Women-Owned Business:</b>    | <b>Yes</b> _____ | <b>No</b> _____ |
| <b>Chesterfield Business:</b>   | <b>Yes</b> _____ | <b>No</b> _____ |