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ENERGY AND ENVIRONMENT CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION DIVISION OF WATER 200 FAIR OAKS LANE, 4TH FLOOR FRANKFORT, KENTUCKY 40601 www.kentucky.gov

March 13, 2015

Mr. John Pierce Garrison Quincy KY-O-Heights Water District 284 Murphy Lane P. O. Box 279 Garrison, KY 41141

> RE: WTP Improvements Project DWL13015, F13-034 Garrison Quincy Heights Water District AI#2700 Contract I & II Activity ID: FGL20130005

Dear Mr. Pierce:

The Kentucky Division of Water (DOW) has reviewed for completeness and adequacy the construction plans and specifications submitted for the above referenced contracts. These plans consist of replacing 2 vertical pressure filters, air wash blower, and appurtenances. Also a new 200 gpm with 150 ft TDH gravel packed well and appurtenances with 100 linear feet of 6 inch PVC raw transmission main.

The DOW now approves these plans and specifications with respect to sanitary features of design in accordance with the requirements contained below:

- 1. The capacity of the treatment plant shall remain unchanged at 0.432 MGD.
- 2. The well must not be located within 50 feet of septic tanks and 70 feet of drain fields, or near any other known source of containination.
- 3. No sewer pipes are to be installed within 20 feet of the well.
- 4. The well must comply with the current regulations of the Ground Water Branch of the Division of Water (401 KAR 3:310). Included are requirements for the well casing to extend at least 4 inches above grade and for a water-tight well cap to be installed on the casing top.
- 5. The water line leaving the well shall be equipped with a bypass valve to allow for flushing of water from the well.



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- 6. A sample tap shall be placed on the drinking water line (prior to any treatment) for collection of raw water samples.
- 7. Before drilling the well and connecting it to the water treatment plant, ensure that the water treatment plant has capacity to treat the raw water from Well No. 6.
- 8. Compliance with the Ground Water Treatment Rules shall be maintained.
- 9. A minimum free chlorine residual of 0.2 ppm shall be maintained throughout the drinking water system.
- 10. The rate of filtration shall not exceed three gallons per minute per square foot of filter area.
- 11. The pressure filters shall provide for:
 - a. loss of head gauges on the inlet and outlet pipes of each battery of filters
 - b. a meter or flow indicator for each battery of filters
 - c. backwash rate of not less than fifteen gallons per minute per square foot of filter area
 - d. backwash flow indicators
 - e. observation of wastewater during backwashing
 - f. controls that are easily readable when operating control valves
 - g. an air release valve on the highest point of each filter
 - h. construction to prevent cross-connection
- 12. Upon completion of construction, the water system shall be disinfected strictly in accordance with the procedure designated in the State Regulations, which reads as follows: "All new water distribution systems including storage distribution tanks and repaired portions of, or extensions to existing systems, shall be thoroughly disinfected before being placed in service by the use of chlorine of chlorine compounds, in such amounts as to produce a concentration of at least 50 ppm and a residual of at least 25 ppm at the end of 24 hours and followed by thorough flushing."
- 13. When this project is completed, the owner shall submit a written certification to the Division of Water that the above referenced water supply facilities have been constructed and tested in accordance with the approved plans and specifications and the above stipulations.

Unless construction of this project is begun within two (2) years from the issuance date of this permit, the permit shall expire. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review.

The approval conditions and a list of eligible/ineligible items are enclosed. Please note that ineligible items cannot be funded using State Revolving Fund (SRF) monies, and must be paid by other funding sources.

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We are enclosing one (1) set of approved plans and specifications. An identical set should be made available at the project site at all times. If modifications are made to these plans and specifications before bidding, four (4) complete sets of as-bid plans and specifications must be submitted to the DOW for approval. A second DOW construction approval must be issued by separate correspondence before proceeding with advertising for bids. Any red line changes that were made by DOW personnel on the approved plans shall be incorporated into the bid set plans unless an alternative is approved.

You may now advertise for bids on the construction of this project. In addition to other notifications, this project must be advertised in the newspaper of the largest daily circulation in the project area.

You are cautioned not to advertise unless you have a proper wage decision. The Federal Davis-Bacon wage rates and Kentucky prevailing wage rates are applicable for this project. Please contact all other funding sources for their requirements pertaining to federal or state wage rates.

You are reminded that the construction contracts are subject to the equal employment opportunity requirements contained in Executive Order 11246. Equal employment opportunity affirmative action by the prime contractors and all subcontractors is mandated throughout the duration of the contract. Documentation of efforts to comply with Executive Order 11246, Equal Employment Opportunity is required to be kept by the borrower.

Review the attached Project Review and Cost Summary form for details of the information to be collected and retained in your files or to be submitted to DOW for review and approval. This form must be completed, signed by the recipient, and with the necessary information be then forwarded to the DOW. This signature will certify that all the information to be retained by the recipient has been secured and is available for review by the Division at the pre-construction conference. The required information must be approved by the DOW before executing any contracts.

Along with the Project Review and Cost Summary form, the following items must be submitted to the DOW for review and approval before executing any contracts:

- The bid advertisement
- Revised Project Budget
- Certified bid tabulation
- Documentation of compliance with DBE Good Faith Effort in accordance with 40 CFR 33.301

These items will be reviewed as a part of the Authority to Award process. The DOW will authorize you to award the contracts once these documents are approved

After the Notice to Proceed is signed, the DOW will need a copy of the executed contract documents, including plans and specifications.

Changes orders will require approval from the DOW before payment can be authorized from the State Revolving Fund. Submission of plans and specifications may be required for change order work.

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Upon completion of the project, as-built drawings shall be provided to the DOW. As-builts shall be stamped, signed and dated by a professional engineer. A written certification stating that the project was constructed according to the approved plans shall be provided to the DOW by a professional engineer.

The construction permit included in this letter has been issued under the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Issuance of this approval does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies.

You are cautioned that the advertisement and award of this contract will be subject to the laws and regulations that govern the State Revolving Fund (SRF) and to the conditions of your loan agreement. If we can be of further assistance, please call Daniel Kulik, Project Engineer, at (502) 564-3410, extension 4828.

Sincerely.

Mark Rasche, P.E. Supervisor, Engineering Section Water Infrastructure Branch Division of Water

MR:DK

Enclosures

Eligible List, Ineligible List, Approval Conditions Project Review and Cost Summary Form (1 set plans and specification, if applicable)

C: HMB Professional Engineering, Inc. (Jeff Reynolds) (by e-mail only) Kentucky Infrastructure Authority (by e-mail only) Cabinet for Economic Development (by e-mail only) Lewis County Health Department (by e-mail only) Division of Plumbing (by e-mail only)