



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Henry R. Darwin
Director

Via U.S. Mail and E-Mail

December 15, 2014
RPU 15-134

Donovan L. Neese
Superintendent
Roosevelt Irrigation District
103 West Baseline Road
Buckeye, Arizona 85326

RE: Review of Revised Operation and Maintenance Plan - Roosevelt Irrigation District Wellhead Treatment Systems
West Van Buren WQARF Registry Site
Phoenix, Arizona

Dear Mr. Neese:

The Arizona Department of Environmental Quality (ADEQ) Remedial Projects Unit (RPU) has reviewed the revised *Operation and Maintenance Plan - Roosevelt Irrigation District Wellhead Treatment Systems* (O&M Plan), dated October 2014 (revision 4) and received on October 20, 2014. The revised O&M Plan was prepared by Synergy Environmental, LLC on behalf of Roosevelt Irrigation District (RID). RPU has reviewed the revised O&M Plan under an executed working agreement dated October 8, 2009, amended on February 27, 2014, between RID and ADEQ.

Background

Pursuant to Arizona Administrative Code (A.A.C.) R18-16-411(D), RID was required to prepare and implement an O&M Plan for their Early Response Action. Pursuant to A.A.C. R18-16-411(E), the O&M Plan required an opportunity for public comment as well as review, approval, and certification by ADEQ.

The public comment period was held from June 19, 2014 to July 21, 2014. ADEQ compiled the public comments and sent them to RID along with ADEQ's review. RID provided a response to comments letter and revised O&M Plan on October 20, 2014 for review, approval, and certification by ADEQ.

ADEQ has a few additional comments that are believed to be important for RID to address before approval and certification can be provided by the agency.

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
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Required Information

1. In accordance with A.A.C. R18-16-411(E)(4), the O&M Plan shall include “a process for the treatment system operator to promptly notify potentially affected water providers of a failure of a key treatment system component that could affect the quality of a discharge of treated water.”

ADEQ disagrees with RID’s response that there are not other *potentially* affected water providers that could be affected by “a key treatment system component that could affect the quality of a discharge of treated water”. ADEQ requests that RID consider the entities surveyed in the Land and Water Use Study included in the final West Van Buren Water Quality Assurance Revolving Fund (WQARF) Remedial Investigation, dated August 2012.

2. ADEQ requests that RID submit a response to comments letter within 30 calendar days from the date of this letter. Once received, ADEQ will review, and if appropriate, provide approval pursuant to A.A.C. R18-16-411(E) and “certification by the Department that the elements of the operations and maintenance plan adequately protect public health against treatment system failure” in accordance with A.A.C. R18-16-411(E)(1). Once ADEQ has determined that approval and certification are appropriate, ADEQ will request RID to submit a final revised O&M Plan upon which RID will receive approval and a certification letter.

Recommendations

Specific Comments

3. Section 4.4.2 – Bypass Mode, page 20:

ADEQ requests that RID provide information in this section regarding whether the system is ever operated in a partial bypass mode and what happens to the SCADA system when the facility is operating in the full/partial bypass mode.

4. Section 4.5.1 – Well Pumps “Shut Down Conditions”, page 23:

ADEQ requests that RID provide a discussion of the sump water level shut down conditions.

5. Section 4.5.2 – Flow Meters, page 24:

ADEQ noted that this section states that the low flow alarm value is 25 percent of the low normal operating flow. However, the low flow non-critical alarm values listed in section 4.5.6 are not 25 percent of the normal flow rates listed in section 4.2. ADEQ requests RID to clarify this information.

6. Section 4.5.6 – SCADA System, page 26:

- a. In discussions with Synergy, it was indicated that the 40 pounds per square inch (psi) critical shut down at the well heads could not happen with the pumps installed in the wells. Therefore, the pump performance is only monitored by low flow rate which is not a critical alarm. ADEQ suggests that the 40 psi high pressure critical alarm be eliminated or that a lower, more relevant, critical pressure is derived from the well pump curves. ADEQ also suggests including a description of how the non-critical low

flow rate, which requires only an operator response within two hours, is protective of “public health against treatment system failure” [A.A.C. R18-16-411(E)(1)].

- b. ADEQ requests that RID discuss the feasibility of including a critical shut down at all wellhead treatment systems for low flow on one or more of the treatment train flow meters. ADEQ noted that Section 4.5.2 states that the flow meters have transmitters which are presumably monitored by the SCADA system. The reasoning behind this request is that if the treatment train flow meters record a low flow, there could be a significant upstream leak. A critical shut down would provide redundancy for the sump level shut down and would also account for leaks that could occur outside of the containment pad.

7. Section 4.5.9 – Unplanned Shutdowns/System Operation Upset Events, page 27:

The second bullet states that when the sump high-high set point is reached, the 3-way valve is activated and flow is diverted to the bypass piping; however, the response to ADEQ comment number 20 in the October 20, 2014 letter states that the high-high results in a system shut down, not a flow diversion. ADEQ requests RID to clarify this information.

8. Section 4.6.2 – Frequency and Locations of Sampling, page 29:

The section states that the point of compliance samples are collected at sampling ports located down-stream of the treatment train skids as shown in Drawing 3-6. However, Figure 4 for RID-92 does not show the sampling port. ADEQ requests RID to clarify this information.

9. Section 6.2 – Progress Reports, page 34:

ADEQ requests that RID include the weekly inspection forms in the monthly progress reports.

How to Submit

ADEQ requests that RID submit a response to comments letter within 30 calendar days from the date of this letter. Once received, ADEQ will review, and if appropriate, provide approval pursuant to A.A.C. R18-16-411(E) and “certification by the Department that the elements of the operations and maintenance plan adequately protect public health against treatment system failure” in accordance with A.A.C. R18-16-411(E)(1). Once ADEQ has determined that approval and certification are appropriate, ADEQ will request RID to submit a final revised O&M Plan upon which RID will receive approval and a certification letter.

In accordance with the executed working agreement dated October 8, 2009, amended on February 27, 2014, between RID and ADEQ, please submit documents sent in response to this letter using one of the following methods:

1. Hard copy to:

ADEQ
Attention: Scott Green, R.G., Remedial Projects Unit Manager
1110 West Washington Street
Phoenix, AZ 85007

2. E-mail to srg@azdeq.gov

In general, RPU requests two hard copies and one electronic copy of submitted documents.

Additional Information

Information pertaining to the WQARF program can be obtained by accessing ADEQ's web page at www.azdeq.gov, or by visiting ADEQ's office at 1110 West Washington Street, Phoenix, Arizona. Information pertaining to Arizona Revised Statutes Title 49 can be obtained by accessing the Arizona State Legislature web page at www.azleg.gov. Information pertaining to Arizona Administrative Code rule citations may be found at www.azsos.gov.

You may contact the ADEQ Records Management Center staff about reviewing or copying file information at 602-771-4380.

Sincerely,

A handwritten signature in black ink, appearing to read "Rich Olm", with a long horizontal flourish extending to the right.

Rich Olm, P.E.
Waste Programs Division

cc: Laura Malone, ADEQ
Tina LePage, ADEQ
Scott Green, ADEQ
Danielle Taber, ADEQ
Dennis Shirley, Synergy Environmental, LLC