



May 21, 2018

Illinois Environmental Protection Agency
Bureau of Water, CAS #19
P.O. Box 19276
Springfield, Illinois 62794-9276

Attn: Mr. Paul Connelly

Re: City of Rochelle, Illinois
Violation Notice #W-2018-00030
Facility I.D.: IL1410500

Dear Mr. Connelly:

We are formally responding to the Violation Notice #W-2018-00030. The violation detailed in Attachment A of the notice indicated the combined radium exceeded the maximum contaminant level of 5 pCi/L for the annual average of the last four (4) quarter samples for sample point TAP 12 (Well #12). The current annual average for combined radium at TAP 12 is 7.67 pCi/L.

FINDINGS

The combined radium testing results from Well #12 are summarized in the table below. The combined radium test reports from PDC Laboratories are enclosed.

Well #12 (TAP 12) Combined Radium Test Results

	Combined Radium (pCi/L)
May 22, 2014	2.86
January 18, 2017	2.46
April 05, 2017	1.95
July 05, 2017	8.3
August 08, 2017	3.73
October 04, 2017	8.85
January 17, 2018	9.13
April 18, 2018	6.66



Well #12 (TAP 12) was constructed in 2016 and was drilled to a depth of 970 feet. The upper 625 feet of the well is cased off with a 20" diameter casing pipe and the open hole below the casing is 19" diameter, as detailed on the enclosed well log and well profile. The well is cased through the St. Peter Sandstone formation, and water is obtained from the Iron-ton-Galesville sandstone formation.

The Iron-ton-Galesville sandstone formation is the main water producing formation in Well #12. The limestone formation above the sandstone is not fractured enough to produce a significant amount of water. Well testing could be performed to log the water rate entering the well and obtain water samples to determine the combined radium concentration at various levels of the open hole in the well. This well testing could be done to determine if there is an elevated combined radium concentration coming from a certain part of the well. However, it could be difficult to seal off an elevated combined radium zone in the well since the sandstone formation is hydraulically connected.

VIOLATION RESPONSE

The City will take Well #12 off-line once the radium removal plant at Well #11 and reconstruction of Well #10 are complete and go online in October of 2018. This will insure we have an adequate and reliable water supply before turning Well #12 off. We will leave it off until the combined radium levels in Well #12 are below the MCL and in compliance with the drinking water standards or if there is an emergency which requires the well to be used for a short period of time.

The City proposes two (2) alternatives to get Well #12 into compliance. Alternative No.1 is to continue with combined radium quarterly testing. The City will pump the well to waste to obtain the test sample. If the average combined radium concentration of the 3rd and 4th Quarter samples of 2018 and 1st and 2nd Quarters of 2019 are below the MCL, the City would be in compliance and would put Well #12 back into service.

While the quarterly combined radium testing is being performed, the City will proceed with Alternative No. 2 which is the planning and design of a water treatment plant to reduce the combined radium concentration below the MCL. The City has prepared and submitted an IEPA Public Water Supplies Project Plan report to the agency on May 7, 2018 to become eligible for an IEPA loan to fund construction of a radium removal filter plant. If Alternative No. 1 is not successful in reducing the combined radium concentration below the MCL, the City will proceed with the bidding and award, obtaining the IEPA loan agreement and construct the water treatment plant.



The City is willing to enter into a Compliance Commitment Agreement and proposes a schedule outlined below:

Compliance Schedule

Event	Date
Submitted Project Plan Report and Planning Application Forms to IEPA	May 7, 2018
Develop and adopt ordinance authorizing the City to borrow funds from the IEPAPWS Loan Program	November 26, 2018
Obtain IEPA Approval of Project Plan Report	January 31, 2019
Complete Design and Submit IEPA Construction Permit Application	February 1, 2019
Obtain IEPA Construction Permit	May 15, 2019
Complete Four (4) Quarters of Combined Radium Compliance Testing (If Necessary)	July 1, 2019
Complete Bidding and Award (If Necessary)	July 17, 2019
Obtain IEPA Loan Agreement (If Necessary)	August 17, 2019
Pre-Construction Meeting (If Necessary)	September 4, 2019
Complete Construction and Obtain IEPA Operating Permit (If Necessary)	August 15, 2020

We hope that this letter meets with your approval. Please feel free to call if you have any questions or comments.

Sincerely,

CITY OF ROCHELLE, ILLINOIS

BY _____
 Jeff Fiegenschuh, City Manager



CITY OF ROCHELLE, ILLINOIS

BY _____
Adam Lanning, Water/WRP Superintendent

AL:mh

Encl.

cc: Matt Hansen, WHA
Dominick Lanzito, City Attorney
File