PUBLIC HEALTH DIVISION
Center for Health Protection, Drinking Water Services
Kate Brown, Governor

Oregon Health Authority

800 NE Oregon Street, Suite #640
Portland, OR 97232-2162
(971) 673-0405
(971) 673-0694 – FAX
http://healthoregon.org/dwp

August 1, 2017

Commissioner Nick Fish
City of Portland
1221 SW 4th Ave Room 240
Portland, OR 97204-1998

Dear Commissioner Fish:

In response to the letter we received today from you and Mayor Wheeler requesting an extension to the timeframes in the Crypto treatment variance revocation order, issued by the Oregon Health Authority on May 19, 2017, we have amended the order by extending the deadlines by an additional 60 days. We would like to commend you and the Portland Water Bureau staff for quickly engaging the council and community in evaluating treatment options following the issuance of the revocation order. Although there is always a desire for more certainty, we find that the options for treatment are well understood as are the relative trade-offs. However, we also understand that given the technical nature of this issue and the high relative cost, additional community engagement may be necessary.

If you have any questions, please don't hesitate to contact me at 971-673-0403 or David Emme, Manager of Drinking Water Services at 971-673-0415.

Sincerely,

David M Hawe

for Jere High, ND, Administrator
Center for Health Protection
OHA Public Health Division

Cc: Lillian Shirley, Director, Public Health Division
David Emme, Manager, Drinking Water Services, OHA
Dan Opalski, Region 10 Environmental Protection Agency
Ed Kowalski, Region 10 Environmental Protection Agency
Marie Jennings, Region 10 Environmental Protection Agency

OREGON HEALTH AUTHORITY
PUBLIC HEALTH DIVISION
CENTER FOR HEALTH PROTECTION
DRINKING WATER PROGRAM

In the Matter of: Portland Water Bureau's Variance under 42 USC § 300g-4(a)(1)(B)	**Amended Order Revoking Variance; Delayed Revocation Date**

In 2006, the US Environmental Protection Agency finalized its Long-Term 2 Enhanced Surface Water Treatment Rule (LT2). The LT2 rule required unfiltered water systems subject to federal regulation that have no current treatment for *Cryptosporidium*[1] to: 1) treat its source water for *Cryptosporidium*; and 2) use at least two disinfectants.[2] However, the Safe Drinking Water Act (SDWA)[3] permitted a State to grant a variance from a specified treatment technique if the water system demonstrated "to the satisfaction of the State that such treatment technique is not necessary to protect the health of persons because of the nature of the raw water source of such system."[4] Similarly, under state law OHA "may grant a variance from standards requiring the use of a specified water treatment technique if the authority * * * [d]etermines that the use of a specified water treatment technique is not necessary to protect the public health based on the nature of the raw water source for a public water system.[5]

On June 7, 2011, the Oregon Health Authority (OHA), Public Health Division, Center for Health Protection, Drinking Water Program received a variance request from Portland Water Bureau (PWB)[6]. Specifically, PWB requested a variance from the *Cryptosporidium* treatment requirements in 40 CFR 141.712(b), (c), and (d), and OAR 333-061-0032(3)(e) through (g). In its request PWB asserted that because of the nature of the Bull Run watershed, its raw water source, treatment at the source for *Cryptosporidium* is unnecessary.

On March 14, 2012, after a thorough review of the facts and the data supporting PWB's request for a variance, and other information gathered by OHA, OHA issued a Final Order ("variance order") granting PWB's request for a variance from the treatment requirements for *Cryptosporidium*. In its variance order OHA concluded that PWB had demonstrated to its satisfaction that treatment for *Cryptosporidium* at the Bull Run watershed intake was not necessary to protect public health because of the nature of the raw water source. However, OHA imposed various conditions, including ongoing water monitoring for *Cryptosporidium*, and increased water monitoring if *Cryptosporidium* was detected in any water sample.

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[1] *See* Final Order on the variance, dated March 14, 2012, paragraphs 9 to 25, for information about a *Cryptosporidium*.
[2] 40 CFR § 141.712.
[3] Section 1415(a)(1)(B), (42 USC § 300g-4(a)(1)(B)).
[4] 42 USC § 300g-4(a)(1)(B).
[5] ORS 448.135(2)(a).
[6] PWB requested the variance under Section 1415(a)(1)(B) of the SDWA, 42 USC § 300g-4(a)(1)(B), and ORS 448.135(2).

In January of 2017, PWB detected the presence of *Cryptosporidium* in water samples collected pursuant to the observation monitoring required under the variance order. Under the variance order, if PWB detects the presence of *Cryptosporidium* it must undertake demonstration monitoring, which is an increase in the frequency of sampling, to show that the average *Cryptosporidium* concentration is less than 0.075 oocysts per 1,000 liters over one year. In demonstration monitoring up to March 8, 2017, PWB had detected 12 oocysts of *Cryptosporidium* in 2200.1 liters of water sampled.

On March 8, 2017, PWB notified OHA that it is not feasible for it to conduct the amount of water sampling necessary to demonstrate that its annual average concentration of *Cryptosporidium* is less than the allowable threshold.

Based on the notification from PWB, **OHA HEREBY REVOKES** the variance order **effective on the date OHA signs a compliance schedule and interim measures agreement or order, or on November 22, 2017, whichever is sooner.**

Until a compliance schedule and interim measures are agreed to or ordered PWB must sample, at the intake, at least 200 liters of water per week, over at least 4 days per week, and test for *Cryptosporidium.* PWB must continue to comply with all other conditions in the variance order until the date the revocation is effective, except for Section IV.1 (b) B and C of the variance order, pages 17-18.

Without a *Cryptosporidium* treatment variance, PWB is required to fully comply with the *Cryptosporidium* treatment requirements established in the LT2 rule, OAR 333-061-0032.[7]

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[7] In order to determine the level of treatment required, all regulatory and variance sampling conducted during the second round of LT2 sampling period (March 2015-March 2017) is considered. The average Cryptosporidium concentration during this period is 0.001 oocysts per liter. Therefore, LT2 requires installing and properly operating treatment processes that reliably achieve 2 -log (99%) inactivation of Cryptosporidium.

For purposes of establishing a compliance schedule and interim control measures PWB must, on or before October 11, 2017, submit to OHA, the following:

1. A description of which treatment technology PWB intends to pursue for compliance with the 2-log *Cryptosporidium* treatment requirement.
2. A detailed proposed schedule of when the treatment will be in place, with a schedule that indicates treatment will be in place as soon as practicably possible. Specific dates must be included for plan submittal for review and approval, and must identify when water that fully meets all requirements will be served to the public.
3. Measures PWB intends to take to reduce the risk of the public's exposure to *Cryptosporidium* until such a time as treatment is in place, that are at least as protective as the applicable conditions in the variance order.
4. A proposed sampling schedule for *Cryptosporidium* at the intake until adequate treatment is in place.

IT IS SO ORDERED.

Dated this 1st day of August, 2017

David M. Howe

for Jere High, ND, Administrator
Center for Health Protection
Public Health Division, Oregon Health Authority