

Department of Environmental Conservation

DIVISION OF ENVIRONMENTAL HEALTH Environmental Health Laboratory

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February 23, 2023

Reference: Drinking Water Chemistry Sample Temperatures for Refrigerated Samples Policy - Revised

To all Alaska Drinking Water Chemistry Certified Laboratories:

This memo intends to clarify temperature requirements for shipping and receiving of all chemistry drinking water samples which require refrigeration.

An examination of the federal regulations, EPA-approved methods, and the EPA Manual for the Certification of Laboratories Analyzing Drinking Water (LCM) shows that there is not perfect agreement among these federal references. Therefore, Alaska is setting the policy that when refrigeration is denoted by "4°C", "refrigerated" "cool" or similar notation:

- A laboratory can accept a drinking water sample if its measured temperature is 0.0°C to 6.0°C. No rounding to the integer or tenths digits is allowed.
- The drinking water sample must be stored at the laboratory or service center facility as close to 4°C as practicable, with the same acceptable range of temperature 0.0°C to 6.0°C.
- No freezing is allowed at any time. Freezing is defined as the presence of bulk ice in the sample. Bulk ice is at least one solid piece can be translucent or opaque, and indicates that the sample has encountered freezing temperatures for an amount of time. Translucent ice crystals forming on interfaces between the sample and the container/headspace are acceptable within the measured temperature range above.
- Samples for Nitrate, Nitrite, and Total Nitrate/Nitrite must be refrigerated during both transport and laboratory storage, even if acidified.
- If an EPA-approved method (e.g. EPA 1613) is more stringent than this policy, the method requirement is applied.

This policy was implemented on August 31, 2017. The original memo was issued July 31, 2017. Only the third bullet and minor wording changes were revised on February 23, 2023.

If you have any questions, please do not hesitate to contact the ADEC EHL at (907) 375-8200 or declabcert@alaska.gov.

Sincerely,

Patryce D. McKinney, M.B.A. Certification Authority

CC: Cindy Christian, Alaska Drinking Water Program