



Alcohol & Marijuana Control Office MEMORANDUM

TO: Members of the Marijuana Control Board
FROM: AMCO Staff
DATE: October 13, 2021
RE: Testing for STEC

Background

A person seeking a marijuana testing facility license in Alaska must first obtain the approval of the Marijuana Control Board (“MCB”) by showing competence to perform each test the licensee will offer as an independent third-party testing facility, including tests to identify harmful microbials including *Escherichia coli* (E. Coli) [STEC] or salmonella.¹

MCB regulations² require microbial testing for several listed substances (contaminants) of marijuana; retail marijuana products; and, water and food-based concentrates. Shiga-toxin producing *Escherichia coli* (STEC)-bacteria is one such listed contaminant.³ “[C]ontaminant” is defined in 3 AAC 306.990 *Definitions* as “harmful microbials such as *Escherichia coli* (E. coli).”

Issue

As the result of audit activities conducted of a testing facility (“lab”) it was determined that the lab was using a method approach resulting in testing for only one of the STEC serotypes identified as *E.coli* O157, when they should have, like the other labs, been testing for STEC serotypes with no requirement to identify the specific serotypes. The lab in their 2018 application under 3 AAC 306.620 stated they would test for “E Coli STEC” and in their additional material in support of their application, identified they would test for Shiga toxin producing *Escherichia Coli* (STEC) with the objective being that “mentioned microorganisms are not present in the sample to assure safe consumption.” The lab’s method approach does not demonstrate a path to test for STEC.

Conclusion

Notwithstanding that 3 AAC 306.645 identifies the testing requirements for harmful microbials and all operating labs, but the one, is testing correctly for STEC, the following guidance language document for all labs is attached for MCB consideration.

¹ 3 AAC 306.620(a)(2). Approval of testing facility.

² 3 AAC 306.645. Laboratory testing of marijuana and marijuana products.

³ The acceptable amount is less than one CFU/g.

DRAFT Guidance Document for Consideration by the Alaska Marijuana Control Board

ALASKA MARIJUANA CONTROL BOARD

TO: All Marijuana Testing Facilities

SUBJECT: Guidance for Testing for STEC

This guidance document is issued to remind testing labs that testing for STEC - Shiga-toxin producing *Escherichia coli* (*E.coli*) does not require the identification of a specific STEC serotype or serotypes, simply the presence or absence of STEC.

“STEC” is defined as Shiga-toxin producing *Escherichia coli* (*E.coli*), a term which represents a group of *E.coli* that produce toxins that are pathogenic (i.e. causing disease).

The test method option for determining the presence of STEC is through examining a sample matrix for genetic material, minimally for genes known as *stx1* and *stx2*. An acceptable method of this testing type must be capable of looking for this genetic material and include a decision tree for evaluating the genetic data to conclude the presence or absence of STEC.

The intention of the acceptable amount in regulation, “less than 1 colony forming unit (CFU/g)”, is to determine the presence or absence of STEC in 1g of matrix. The ability to quantify the amount of STEC present is not required, nor is it required to determine a specific STEC serotype or serotypes present.

This Guidance document does not amend any regulation or compliance document and remains current until revised or rescinded. AMCO staff will electronically transmit this document to all licensed Marijuana Testing Facilities and place it on the AMCO public web site.

DATED this _____ day of October 2021

ALASKA MARIJUANA CONTROL BOARD

Nick Miller, Chair