

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF: )  
 ) R 2025-24  
POTENTIALLY INFECTIOUS MEDICAL )  
WASTE: DESIGN AND OPERATION OF ) (Rulemaking)  
FACILITIES; PROPOSED AMENDMENT TO )  
35 Ill. ADM. CODE 1422.APPENDIX A, )  
TABLE B – INDICATOR MICROORGANISMS )

**NOTICE**

TO: Don A. Brown, Clerk	Carlie Leoni, Hearing Officer
Illinois Pollution Control Board	Illinois Pollution Control Board
60 E. Van Buren Street	60 E. Van Buren Street
Suite 630	Suite 630
Chicago, Illinois 60605	Chicago, Illinois 60605
(VIA ELECTRONIC MAIL)	(VIA ELECTRONIC MAIL)

See attached Service List

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board Illinois Environmental Protection Agency's Pre-Filed Testimony of Joshua Rhoades, a copy of which are herewith served upon you along with this notice.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: /s/ Trevor D. Dell'Aquila  
Trevor D. Dell'Aquila  
Assistant Counsel  
Division of Legal Counsel

DATED: July 31, 2025

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**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S**  
**PRE-FILED TESTIMONY OF JOSHUA RHOADES**

**INTRODUCTION**

My name is Joshua Rhoades. I am the Section Manager for the Illinois Environmental Protection Agency's ("Illinois EPA" or "Agency") Permit Section within the Bureau of Land. I have been employed by the Agency for a total of approximately 13 years. I have been the Section Manager for the Permit Section since August 2024. My positions prior to Section Manager include Groundwater Unit Manager for the Bureau of Land's Permit Section from August 2023 to August 2024 and Environmental Protection Geologist in the Bureau of Land's Permit Section from June 2012 to August 2023. I hold a Bachelor of Science in Geology from Southern Illinois University (2006), a Master of Science in Earth Sciences from University of Maine (2009) and am a Licensed Professional Geologist in the State of Illinois (License Number 196001326).

In my current position as Permit Section Manager, my duties include directing the administration of the hazardous and non-hazardous waste programs through the Bureau of Land's Division of Pollution Control, Permit Section, and evaluating designs and remedial actions for facilities regulated under those programs.

I will be providing testimony regarding the proposed amendments to Title 35 of the Illinois Administrative Code ("35 IAC") Part 1422 regarding BioSAFE Engineering's ("BioSAFE") proposal to add *Bacillus Atrophaeus* to 35 Ill. Adm. Code 1422.App. A, Table B, and Illinois EPA's proposal to amend 35 Ill. Adm. Code Sections 1422.105(a)(4)(F), 1422.122(a)(4)(E), 1422.123(a)(3), 1422.123(c)(1), 1422.127(e)(1), and 1422.106(e), as described below.

**RESPONSE TO BOARD'S QUESTION FROM THE JUNE 26, 2025, HEARING**

At the June 26, 2025, Hearing, the Board directed to the Agency a question regarding the Agency's stance on whether to maintain the historical approach of having equipment manufacturers suggest the appropriate indicator organism for a specific treatment system. This was in reference to the June 12, 2025, Hearing Officer Order question number 9(c) directed to BioSAFE, which stated:

Comment on whether Section 1422.Appendix A, Table B should specify for each indicator microorganism the type of treatment

system that the organism may be used for efficacy testing. For example, Table B could specify *Geobacillus stearothermophilus* as an indicator microorganism for testing autoclaves and incinerators. (Hearing Officer Order, June 12, 2025, p. 4).

In BioSAFE's response to question number 9(c), BioSAFE stated:

We believe the Illinois EPA's historical approach of having equipment manufacturers suggest the appropriate indicator organism for each type of treatment system is most appropriate. (BioSAFE's June 25, 2025, Responses to Pre-Filed Questions, p. 7).

At the June 26, 2025, Hearing, the Board directed to the Illinois EPA a question on its stance regarding the historical approach as described in BioSAFE's answer. The transcript from the June 26, 2025, hearing states:

It relates to BioSafe's answer to Board question number 9, 9B -- 9C, where BioSafe states that they believe that Illinois EPA's historical approach of having equipment manufacturers suggest 18 indicator organisms for each type of treatment system is more appropriate than the Board specifying in the rules itself as to what microorganism should be used for what kind of system. So I just wanted to ask the Agency whether the Agency is comfortable with its historical approach, or would it be clear if the Board specifies, you know, which microorganism should be used depending on the type of treatment system. (Hearing Transcript, p. 16, lines 13-24, and p.17, line 1).

Agency Response:

The Agency believes that the best course is to maintain maximum flexibility under the rules. As the Agency will be reviewing and permitting treatment systems, the Agency will be able to ensure that an improper identifier organism is not utilized for a specific treatment system.

**ILLINOIS EPA PROPOSED AMENDMENTS TO 35 ILL. ADM. CODE 1422**

It is apparent that several portions of Part 1422 should be updated to correct outdated information or to clarify regarding specific treatment systems. A full list of the Agency's proposed amendments to Part 1422 is attached hereto as Exhibit A. In sum, the Agency proposes to amend 35 Ill. Adm. Code Sections 1422.105(a)(4)(F), 1422.106(e), 1422.122(a)(4)(E), 1422.123(a)(3), 1422.123(c)(1), and 1422.127(e)(1).

The regulation at 35 Ill. Adm. Code 1422.105(a)(4)(F) states that a written description for any permit application for a Potentially Infection Medical Waste ("PIMW") treatment, storage, or transfer operation must include the operating parameters of the treatment system. The Agency proposes an amendment to Section 1422.105(a)(4)(F) as follows to specifically include

temperature and pressure as operating parameters, which will help determine the appropriateness of the indicator organism used:

F) The operating parameters for the treatment units, including but not limited to temperature and pressure.

Language similar to this is utilized in Sections 1422.122(c)(5)(D), 1422.124(f)(2), and 1422.125(f)(2). However, another four sections in Part 1422, Subpart C, do not have a reference to temperature and pressure where it should be included. Therefore, the Agency proposes amending Sections 1422.122(a)(4)(E), 1422.123(a)(3), 1422.123(c)(1), and 1422.127(e)(1) to also include references to operating parameters similar to those contained in comparable regulations.

In addition to these amendments regarding identifying temperature and pressure for treatment systems, an amendment to Section 1422.106(e) is prudent to eliminate outdated information. Section 1422.106(e) states:

e) The applicant must state whether the facility is a new regional pollution control facility, as defined in Section 3.330 of the Act, that is subject to the site location suitability approval requirements of Sections 39(c) and 39.2 of the Act. If approval by a unit of local government is required, the application must identify the unit of local government with jurisdiction. The application must contain any approval issued by that unit of local government. If no approval has been granted, the application must describe the status of the approval request.

Section 1422.106(e)'s reference to a "regional pollution control facility" is outdated, as regional pollution control facility is no longer a utilized term. In order to remove any potential confusion regarding regional pollution control facilities, the Agency proposes removing the term "regional" from Section 1422.106(e).

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: /s/ Trevor D. Dell'Aquila  
Trevor D. Dell'Aquila  
Assistant Counsel  
Division of Legal Counsel

DATED: July 31, 2025

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**EXHIBIT A**

35 Ill. Adm. Code 1422.105(a)(4)(F)

- F) The operating parameters for the treatment units, including but not limited to temperature and pressure;

35 Ill. Adm. Code 1422.106(e)

- e) The applicant must state whether the facility is a new ~~regional~~ pollution control facility, as defined in Section 3.330 of the Act, that is subject to the site location suitability approval requirements of Sections 39(c) and 39.2 of the Act. If approval by a unit of local government is required, the application must identify the unit of local government with jurisdiction. The application must contain any approval issued by that unit of local government. If no approval has been granted, the application must describe the status of the approval request.

35 Ill. Adm. Code 1422.122(a)(4)(E)

- E) Establishes appropriate ranges for all operating parameters (e.g., temperature, pressure, residence time, chemical concentration, irradiation dose);

35 Ill. Adm. Code 1422.123(a)(3)

- 3) Operated under the same conditions (e.g., temperature, pressure, residence time, chemical concentration, irradiation dose) that have been used to demonstrate that the infectious potential was eliminated in compliance with this Part;

35 Ill. Adm. Code 1422.123(c)(1)

- 1) An operating plan that includes a description of the treatment facility's operating procedures and parameters (e.g., temperature, pressure, residence time, chemical concentration, irradiation dose); and

35 Ill. Adm. Code 1422.127(e)(1)

- 1) A summary of operating data, including the operating parameters (e.g., temperature, pressure, residence time, chemical concentration, irradiation dose) and results of the Initial Efficacy Tests or Periodic Verification Tests;

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**CERTIFICATE OF SERVICE**

I, the undersigned, an attorney, state the following:

I have served the attached Illinois Environmental Protection Pre-Filed Testimony of Joshua Rhoades upon the following:

See attached Service List

I affirm that my e-mail address is [trevor.dellaquila@illinois.gov](mailto:trevor.dellaquila@illinois.gov); the number of pages in the e-mail transmission is 7; and the e-mail transmission took place before 5:00 p.m. on July 31, 2025.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: /s/ Trevor D. Dell'Aquila  
Trevor D. Dell'Aquila  
Assistant Counsel  
Division of Legal Counsel

DATED: July 31, 2025

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