



ANSI/NEMA C78.LL 4-2003 (S2018)

American National
Standard for Electric
Lamps — Procedures
for Incandescent Lamp
Sample Preparation and
the Toxicity
Characteristic Leaching
Procedure



National Electrical Manufacturers Association
1300 North 17th Street, Suite 900 • Rosslyn, VA 22209
www.NEMA.org



American National Standard

Approved June 8, 2018

Secretariat: ANSLG National Electrical Manufacturers Association

for Electric Lamps — Procedures for Incandescent Lamp Sample Preparation and the Toxicity Characteristic Leaching Procedure —

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Printed and Distributed by

Information Handling Services/Global Engineering Documents
15 Inverness Way East, Englewood, CO 80112-5776
Under Contract with National Electrical Manufacturers Association

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Printed in the United States of America

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This Standard is being maintained under the stabilized maintenance option. Proposals for modification or improvement of this Standard are welcome. They should be sent to the National Electrical Manufacturers Association, 1300 N 17th Street, Suite 900, Arlington, VA 22209 or sent via the NEMA website

(<http://www.nema.org>).

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Foreword (This foreword is not part of American National Standard/NEMA C78.LL 4-2003).

Suggestions for improvement of this standard should be submitted to the Secretariat C78, American National Standard Lighting Group of the National Electrical Manufacturers Association, 1300 North 17th Street, Suite 900, Rosslyn, VA 22209. This standard was processed and approved by Accredited Standards Committee (ASC) on Electric Lamps, C78. Committee approval of the standard does not necessarily imply that all committee members voted for that approval.

Much attention continues to be focused on the disposal of mercury containing lamps. The United States Environmental Protection Agency’s Toxicity Characteristic Leaching Procedure (TCLP) is used at both the Federal level and by most states to determine whether or not spent incandescent lamps should be classified as hazardous waste. This Standard was developed by technical experts in the lamp industry to establish a uniform method of sample preparation for incandescent lamps in order to minimize the inherent variability associated with TCLP testing of such lamps. This document also specifies other important aspects related to the leaching process that are not specifically defined for lamps by the EPA SW-846, “Test Methods for Evaluating Solid Waste (Physical/Chemical Methods),” but that have been shown in practice to contribute to test variability, if not properly controlled.

Information concerning the approval of this standard is based on the documents listed in the table below:

Amendment / Change	CDV	RV
First Edition	78(1)/4084	78(1)/4085

At the time it approved this standard the ASC 78 Committee had the following members:

- Al Rousseau, Chair, C78**
- Al Rousseau, Technical Coordinator**
- Randolph N. Roy, Secretariat**
- Ken Denton, Consulting Editor**

Organization Represented:	Name of Representative:
Advance Transformer Company.....	Bob Erhardt
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GE Lighting Systems	Rebecca Lancaster
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Philips Lighting Company	Al Rousseau
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AMERICAN NATIONAL STANDARD

for Electric Lamps--

Procedures for Incandescent Lamp Sample Preparation and the Toxicity Characteristic Leaching Procedure

1 Scope

Procedures for preparation of incandescent lamps for Toxicity Characteristic Leaching Procedure (TCLP) are presented below. These procedures are intended to supplement the TCLP by supplying specific instructions for size reduction and for other critical procedures specific to the testing of incandescent lamps.

This standard specifically covers common incandescent lamp types. Additional standards have been prepared or are in preparation for fluorescent lamps, high intensity discharge lamps, and other types that require specific sample preparation instructions because of their design or construction.

The protocol that follows is grouped to include general requirements, lamp preparation, leaching, filtration, storage, and leaching vessel reuse.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

Toxicity Characteristic Leaching Procedure (TCLP)," 55 FR 126, pp. 26987-26998, June 29, 1990

United States Environmental Protection Agency - SW-846, *Test Methods for Evaluating Solid Waste Physical/Chemical Methods*