

NUCLEAR REGULATORY COMMISSION

[NRC-2013-0062]

**Reporting Procedure for Mathematical Models Selected to Predict Heated Effluent
Dispersion in Natural Water Bodies**

AGENCY: Nuclear Regulatory Commission.

ACTION: Withdrawal notice.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is withdrawing Regulatory Guide (RG) 4.4, "Reporting Procedure for Mathematical Models Selected to Predict Heated Effluent Dispersion in Natural Water Bodies." The guide is being withdrawn because it is obsolete and new guidance has been included in models developed by the Environmental Protection Agency (EPA) that provides updated direction.

ADDRESSES: Please refer to Docket ID **NRC-2013-0062** when contacting the NRC about the availability of information on this document. You may access information related to this document, which the NRC possesses and is publicly-available, using any of the following methods:

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the first time that a document is referenced. The review for the withdrawal of RG 4.4 is available in ADAMS under Accession No. ML12269A378.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852.

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FOR FURTHER INFORMATION CONTACT: Ralph Cady, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-251-7445; or by e-mail at Ralph.Cady@nrc.gov.

SUPPLEMENTAL INFORMATION:

I. Introduction

The NRC is withdrawing RG 4.4 because its guidance has been superseded and is no longer needed. The guide was published in May 1974, to provide guidance on meeting the requirements in § 51.20 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Criteria for and Identification of Licensing and Regulatory Actions Requiring Environmental Impact Statements."

Regulatory Guide 4.4 provided guidance to licensees on a procedure acceptable to the NRC staff for providing summary details of mathematical modeling methods used in predicting the dispersion of heated effluent in natural water bodies. The guide included an itemized table of relevant modeling factors to accompany descriptive material for the one or more models submitted by an applicant. However, neither licensees nor the NRC staff are currently following the explicit recommendations in this guide, in part because the EPA has developed a mathematical model for this purpose that is often used by both NRC staff and licensees.

EPA's National Pollutant Discharge Elimination System (NPDES) program regulates the discharge of effluents (including heated water) into natural water bodies and requires analyses for permitted discharge. EPA has supported the development of a model (CORMIX) for NPDES analyses that is generally used by both NRC staff and licensees. Industry groups, such as the American Petroleum Institute, also have guidance to support these analyses. A few other well-accepted models for heated effluent dispersion also exist and are used in license applications and by the NRC staff in their reviews.

II. Further Information

The withdrawal of RG 4.4 does not alter any prior or existing licensing commitments based on its use. The guidance provided in this guide is no longer necessary. Regulatory guides may be withdrawn when their guidance no longer provides useful information, or is superseded by technological innovations, congressional actions, or other events.

Regulatory guides are revised for a variety of reasons and the withdrawal of an RG should be thought of as the final revision of the guide. Although an RG is withdrawn, current licensees may continue to use it, and withdrawal does not affect any existing licenses or agreements. Withdrawal of a guide means that the guide should not be used for future NRC licensing activities. However, although a regulatory guide is withdrawn, changes to existing licenses can be accomplished using other regulatory products.

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Dated at Rockville, Maryland, this 22nd day of March, 2013.

For the Nuclear Regulatory Commission.

/RA/

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