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UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001

May 21, 2003

Mr. Robert H. Leyse
P. O. Box 2850
Sun Valley, ID 83353

SUBJECT: FOULING AND ULTRASONIC CLEANING SHOULD BE STUDIED BY ACRS

Dear Mr. Leyse:

Thank you for your letter of May 3, 2003, which describes an article in the June 2003 edition of Nuclear Technology entitled "Nuclear Plant Operations and Control," which relates to reactor fuel crud. Your letter and a copy of the article are being distributed to the members of the Advisory Committee on Reactor Safeguards for their information. I will notify you if the members decide to invite the authors of the article to make a presentation to the Committee.

Sincerely,

John T. Larkins
Executive Director

Ralph
Jane

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

Date Printed: May 07, 2003 11:33

PAPER NUMBER:	LTR-03-0276	**LOGGING DATE:**	05/07/2003
ACTION OFFICE:	ACRS		

AUTHOR: Robert Leyse
AFFILIATION: ID
ADDRESSEE: John Larkins
SUBJECT: Fouling and utrasonic cleaning should be studied by ACRS

ACTION: Appropriate
DISTRIBUTION: Chairman, Comrs, EDO

LETTER DATE: 05/03/2003

ACKNOWLEDGED No
SPECIAL HANDLING:

NOTES:

FILE LOCATION: Adams

DATE DUE: **DATE SIGNED:**

P. O. Box 2850
Sun Valley, ID 83353

May 3, 2003

John T. Larkins, Executive Director
ACRS
USNRC
Washington, DC 20555-0001

SUBJECT: FOULING AND UTRASONIC CLEANING SHOULD BE STUDIED BY ACRS

Further to my letters and requests of March 27, 2003, and March 31, 2003, I am requesting that you forward this letter to the full ACRS. I am not requesting time to make a presentation to the ACRS. What I am requesting is that the ACRS hear presentations by the authors who are listed on the reference below:

Nuclear Technology
Volume 142, Number 3
June 2003

Nuclear Plant Operations and Control

Taming the Crud Problem: A Utility Perspective
Yovan D. Lukic, Jeffrey S. Schmidt
Models of crud and oxide deposition were developed to allow prediction of the magnitude of crud and oxide deposits on nuclear fuel cladding. Adjustable parameters for each model were quantified through regression analysis using eddy-current measured crud/oxide thickness for the dependent variable and selected calculated thermal-hydraulic coefficients for independent variables. Insights gained during model development together with the newly acquired ability to predict crud thickness have enabled us to redesign the fuel lattice so as to minimize the adverse impact of crud deposition. The lattice redesign reclaims the benefit of cost efficient ring-type loadings without challenging plant operations and fuel pin integrity.

Robert H. Leyse

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