

November 7, 1989  
LD-89-122

Mr. Leland C. Rouse, Chief  
Fuel Cycle Safety Branch  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Material  
Safety and Safeguards  
U. S. Nuclear Regulatory Commission:  
Attn: Document Control Desk  
Washington, D. C. 20555

Subject: Bioassay Program at Windsor Nuclear Fuel  
Manufacturing Facility

Reference: (A) Letter, W. T. Russell (NRC) to  
P. L. McGill (C-E), dated January 15, 1988  
  
(B) Letter, P. L. McGill (C-E) to  
J. Lieberman (NRC), dated January 25, 1988

Dear Mr. Rouse:

In response to a Notice of Violation [Reference (A)], Combustion Engineering committed [Reference (B)] to expanding the Bioassay Program at the Windsor Nuclear Fuel Manufacturing Facility (License No. SNM-1067). The expanded Bioassay Program, which has been in use at the facility since the last quarter of 1988 includes the following elements:

1. Semi-annual lung counting for all personnel who routinely work in the pellet shop,
2. Semi-annual fecal and urinalysis sampling for the highest 25% of pellet shop personnel based on lung count data, and
3. Fecal and urinalysis sampling to be conducted immediately for any personnel who are suspected to have received an intake above the allowable quarterly limit (>520 MPC hour) for airborne radioactive material. Lung counting of these people will be conducted within four weeks of the suspected intake.

While the commitment to perform fecal and urinalysis for the highest 25% of workers based upon in-vivo counting data may have been of value at the time it was implemented, Combustion Engineering has

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since greatly improved both its Internal Exposure Control Program and its Bioassay Program to a point where we now believe that routine fecal and urinalysis in conjunction with in-vivo counting is no longer warranted.

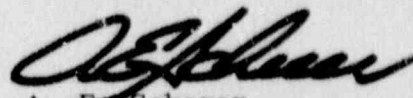
Our Internal Exposure Control Program takes into consideration; 1) Engineered Safeguards at the facility to minimize the potential for airborne or surface contamination, 2) General air sampling on a routine basis, 3) Strict surface contamination controls, and 4) The use of Lapel Air Samplers or qualified fixed position samplers for the assignment of intake. Our Bioassay Program requires routine bioassay measurements and specifies action levels for bioassay measurements based upon air sampling. These programs significantly reduce the likelihood of an employee exceeding the regulatory limits for internal exposure.

In accordance with guidance provided by Mr. George Bidinger of your staff, we are informing you of a change in the application of our Bioassay Program. Because of improvements in radiological safety working conditions along with the implementation of the radiological safety programs mentioned above, Combustion Engineering is terminating its prior commitment to follow an "expanded" Bioassay Program. Henceforth, Combustion Engineering will follow our upgraded Internal Exposure Control Program and Bioassay Program. These programs assure that appropriate air sampling and measurements of radioactivity in the body or excreted from the body will be made on a timely basis to assess the internal exposure of personnel. Both of these programs were reviewed as part of a recent mid-SALP evaluation performed between August 28-29 and September 5-8, 1989.

If you have any questions on this matter, please do not hesitate to call me, Mr. J. F. Conant of my staff at (203) 285-5002 or Mr. P. R. Rosenthal our Program Manager of Radiological and Industrial Safety at (203) 285-9266.

Very truly yours,

COMBUSTION ENGINEERING, INC.



A. E. Scherer  
Director  
Nuclear Licensing

AES:jeb

cc: M. Austin (NRC - Region I)  
D. McCaughey (NRC)  
J. Roth (NRC - Region I)