

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS  
WASHINGTON, D.C. 20555

November 25, 1994

**NRC INFORMATION NOTICE 94-81: ACCURACY OF BIOASSAY AND ENVIRONMENTAL SAMPLING RESULTS**

Addressees:

All U.S. Nuclear Regulatory Commission licensees.

Purpose:

NRC is issuing this information notice to alert addressees to a recent event that has raised questions about the accuracy of results from a bioassay and environmental sampling contractor. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not new NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances:

On November 8, 1994, the U.S. Department of Energy (DOE) issued a press release stating that it was cooperating with other Federal authorities who executed a search warrant for the records of a company that analyzed urine samples for the bioassay program at Sandia National Laboratory. The release is provided in Attachment 1. The company, Controls for Environmental Pollution (CEP), is located in Santa Fe, NM. Quality control testing has raised questions about the reliability of CEP's reports. DOE is also reviewing whether other DOE facilities and employees may be affected.

Discussion:

NRC is concerned that Commission licensees may have used the services of CEP and, based on the circumstances described above, may have reason to question sample results used to determine the exposure of individuals to radioactive materials, or to determine the release of radioactive materials to the environment. NRC does not have complete information on what services CEP has performed for Commission licensees over the last few years. Licensees may wish to determine whether they have used CEP services within the last few years and, if so, consider how the results were used and whether inaccurate results would have any safety significance. If inaccurate results could cause significant safety concerns, licensees may wish to consider what actions would be appropriate to confirm their sample results.

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PDR I&E Notice 94-081

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updated 11/25/94

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This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact the technical contact listed below or the appropriate regional office.

*Carl J. Paperiello*

Carl J. Paperiello, Director  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Material Safety  
and Safeguards

Contact: Scott W. Moore, NMSS  
(301) 415-7875

Attachments:

1. DOE Press Release
2. List of Recently Issued NMSS Information Notices
3. List of Recently Issued NRC Information Notices

*Attachments filed in Jackets*

# DOE NEWS

NEWS MEDIA CONTACT:  
Michael Gauldin, 202/586-4940  
Rick Oborn, 202/586-4940  
Rod Geer, 505/844-6601

FOR IMMEDIATE RELEASE  
November 8, 1994

## ACCURACY OF WORKER EXPOSURE REPORTS QUESTIONED

### DOE OFFICIALS CONCERNED; ALL SITES ALERTED

The Department of Energy (DOE) is cooperating fully with federal authorities who today executed a search warrant for the records of a Santa Fe company that has analyzed employee radiation test results for Sandia National Laboratory.

The company, Controls for Environmental Pollution (CEP), tested employee urine samples for Sandia National Laboratory beginning in 1992 as part of the department's bioassay program. This program is designed to measure the amount of radioactive material taken internally by employees who work with unsealed radioactive substances.

The department is also investigating whether other DOE sites and employees may be affected and reviewing its procedures for handling bioassay samples. Additional information will be released as it becomes available.

Sandia officials stopped using CEP's services in April because quality control testing had raised questions about the reliability of CEP's reports. The department's Mound Plant in Ohio used CEP's services for special projects last year, but stopped sending samples to the company after questions arose about the company's capabilities.

"We take these allegations very seriously," said Secretary of Energy Hazel R. O'Leary. "We are assessing the number of employees and sites that may be involved, reviewing our procedures for handling bioassay reports and establishing an accreditation system to ensure the reliability of bioassay testing."

(MORE)

"We will keep employees informed as we determine the scope of the problem and notify any employees who've been given inaccurate information that affects their health. We are also going to reconstruct dose levels where tests may be questionable."

Urine tests are conducted at DOE sites where unsealed radioactive materials are handled to verify that worker exposure is within safety limits.

CEP tested about 500 employee urine samples for Sandia from August 1992 to April 1994. All individuals involved will be offered new tests.

All DOE sites are being alerted and directed to report instances in which CEP's service have been used so the number of workers potentially affected can be determined and appropriate action taken.

DOE's Office of Environment, Safety and Health is reviewing the department's policies and standards for the collection and recording of bioassay samples to identify weaknesses and make improvements.

Guidance will be provided to DOE sites for action to be taken in the future if similar suspect information is identified. The direction will include procedures for determining whether retesting for affected individuals is called for.

The department has been developing an accreditation program for bioassay laboratories to provide quality and performance standards for contractors that conduct bioassay analysis for the department.

-DOE-

R-94-220

**LIST OF RECENTLY ISSUED  
NMSS INFORMATION NOTICES**

<b>Information Notice No.</b>	<b>Subject</b>	<b>Date of Issuance</b>	<b>Issued to</b>
93-60, Supp. 1	Reporting Fuel Cycle and Materials Events to the NRC Operations Center	10/20/94	All 10 CFR Part 70 fuel cycle licensees.
94-74	Facility Management Responsibilities for Purchased or Contracted Services for Radiation Therapy Programs	10/13/94	All U.S. Nuclear Regulatory Commission Medical Licensees.
94-73	Clarification of Critical- ity Reporting Criteria	10/12/94	All fuel fabrication facilities.
94-70	Issues Associated with Use of Strontium-89 and Other Beta Emitting Radiopharma- ceuticals	09/29/94	All U.S. Nuclear Regulatory Commission Medical Licensees.
94-65	Potential Errors in Manual Brachytherapy Dose Calculations Generated Using a Computerized Treatment Planning System	09/12/94	All U.S. Nuclear Regulatory Commission medical licensees.
94-64	Reactivity Insertion Transient and Accident Limits for High Burnup Fuel	08/31/94	All holders of OLs or CPs for nuclear power reactors and all fuel fabrication licensees.
94-47	Accuracy of Information Provided to NRC during the Licensing Process	06/21/94	All U.S. Nuclear Regulatory Commission Material Licensees.
94-39	Identified Problems in Gamma Stereotactic Radiosurgery	05/31/94	All U.S. Nuclear Regulatory Commission Teletherapy Medical Licensees.

LIST OF RECENTLY ISSUED  
 NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
94-80	Inadequate DC Ground Detection in Direct Current Current Distribution Systems	11/25/94	All holders of OLs or CPs for nuclear power reactors.
94-79	Microbiologically Influenced Corrosion of Emergency Diesel Generator Service Water Piping	11/23/94	All holders of OLs or CPs for nuclear power reactors.
94-78	Electrical Component Failure due to Degradation of Polyvinyl Chloride Wire Insulation	11/21/94	All holders of OLs or CPs for nuclear power reactors.
94-77	Malfunction in Main Generator Voltage Regulator Causing Overvoltage at Safety-Related Electrical Equipment	11/17/94	All holders of OLs or CPs for nuclear power reactors.
94-76	Recent Failures of Charging/Safety Injection Pump Shafts	10/26/94	All holders of OLs or CPs for pressurized water reactors.
93-60, Supp. 1	Reporting Fuel Cycle and Materials Events to the NRC Operations Center	10/20/94	All 10 CFR Part 70 fuel cycle licensees.
94-75	Minimum Temperature for Criticality	10/14/94	All holders of OLs or CPs pressurized-water reactors (PWRs).
94-74	Facility Management Responsibilities for Purchased or Contracted Services for Radiation Therapy Programs	10/13/94	All U.S. Nuclear Regulatory Commission Medical Licensees.

OL = Operating License  
 CP = Construction Permit

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Attachments:

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2. List of Recently Issued NMSS Information Notices
3. List of Recently Issued NRC Information Notices

*Attachments filed in Jackets*

DOCUMENT NAME: 94-81.IN

\*C\* = Copy without attachment/encl. \*E\* = Copy with attachment/encl. \*N\* = No copy. \* - See previous concurrence.

OFC	IMOB*	E	IMOB*	N	IMOB*	E	FCSS*	E	DWM*	E	DOPS/NRR*	N	OGC*	E
NAME	KRamsey		GPangburn		FCombs		RBurnett		MKnapp		BGrimes		JGoldberg	
DATE	11/10/94		11/10/94		11/14/15		11/15/94		11/15/94		11/17/94		11/16/94	

  

OFC	OI*	E	TechEd*	N	IMNS	IMNS	
NAME	RFortuna		EKraus		EWBrach		CPaperiello
DATE	11/16/94		11/16/94		11/17/94		11/17/94

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SGagner, OPA  
 RLoesch, DOE  
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 RGeer, DOE

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