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# OFFICE OF SECRETARY UNITED STATES OBOOMERICAL SERVICE NUCLEAR REGULATORY COMMISSION

## BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	
INDIANA REGIONAL CANCER CENTER INDIANA, PENNSYLVANIA	Docket No. 030-30485-EA
(Byproduct Material License No. 37-28179-01)	EA No. 93-284

# NRC STAFF RESPONSE TO INTERROGATORIES, REQUESTS FOR PRODUCTION OF DOCUMENTS AND ADMISSIONS DIRECTED TO THE STAFF DATED APRIL 20, 1994

## INTRODUCTION

Pursuant to 10 C.F.R. § 2.740, the staff of the Nuclear Regulatory Commission (Staff) hereby responds to "Interrogatories, Requests For Production of Documents and Admissions Directed to the Staff Dated April 20, 1994," filed by the Indiana Regional Cancer Center and Dr. James E. Bauer (hereinafter referred to collectively as "the Licensee").

## BACKGROUND

On April 13, 1994, the Staff informed the parties and the Atomic Safety and Licensing Board (Board) in the above-captioned proceeding that the scope of the criminal investigation involving Dr. Bauer had been expanded to include the issue of Dr. Bauer's

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misuse of the strontium-90 source. Letter to Atomic Safety and Licensing Board from Marian L. Zobler, Counsel for NRC Staff. On April 18, 1994, the Licensee and Dr. Bauer filed a "Motion to Immediately Stay Discovery." On April 19, 1994, the Staff filed its response, in which it agreed to a stay of discovery as it related to the unauthorized use of strontium-90 and Dr. Bauer's misrepresentations, until the criminal investigation is completed. "NRC Staff's Response to Motion to Immediately Stay Discovery," April 19, 1994, at 3. On April 26, 1994, the Board issued an order which, among other things, stayed discovery "only as to those matters referenced in the April 13, 1994 letter of the Board from staff counsel as being the subject of an ongoing DOJ criminal investigation." Order (Granting Motions for Protective Order) at 2. Consequently, the Staff in its Response has not responded to those interrogatories, requests for production of documents, or admissions relating to the subject matter of the Board's April 26, 1994 stay: the unauthorized use of strontium-90 and Dr. Bauer's misrepresentations.

# I. STAFF RESPONSES AND OBJECTIONS TO LICENSEE'S INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS

# LICENSES'S INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS

### INTERROGATORY 1

a) Identify any person the NRC intends to call as a witness in this proceeding.

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## RESPONSE:

The Staff presently intends to call Ms. Penny Nessen, Dr. Mohammed Shanbaky, Ms. Patricia Santiago, and Dr. John E. Glenn as witnesses in this proceeding.

## INTERROGATORY 2

With respect to any person listed in response to interrogatory 1, state what details of that person's education, employment history and asserted area of expertise, or, in the alternative, a copy of such person's curriculum vitae may be provided.

## **RESPONSE:**

A copy of each person's statement of qualifications is attached hereto.

# **INTERROGATORY** 4

a) Identify all documents the NRC intends to rely on in this proceeding. <u>RESPONSE</u>

At this time the Staff has not made a final decision as to what documents it intends to rely on in this proceeding.

## **REQUEST FOR PRODUCTION 1**

Provide copies of all of the documents identified in response to interrogatory 4.

# RESPONSE

The Staff is unable to comply with this request. See Staff's response to Interrogatory 4.

## INTERROGATORY 5

As to each document identified in response to interrogatory 4, state whether and how the NRC intends to seek to move each such document into the record as evidence in this proceeding and how the Staff will authenticate the document.

#### RESPONSE

The Staff is unable to respond to this interrogatory. See Staff's response to

Interrogatory 4.

#### INTERROGATORY 6

As to each document identified in response to Interrogatory 4, state what fact or opinion the NRC intends to establish if the document is admitted into evidence.

## RESPONSE

The Staff is unable to respond to this interrogatory. See Staff's response to

## Interrogatory 4.

## **INTERROGATORY 9**

a) Identify any other actions, civil and/or administrative, including enforcement where the NRC has suspended, revoked or otherwise restricted a license because of or in part because of the conduct of the authorized user under a separate license.

b) Identify any and all documents supporting the response to this interrogatory.

### RESPONSE

a) Enforcement actions are the only actions wherein the NRC suspends, revokes, or restricts licenses. The NRC staff recalls issuing orders suspending and/or revoking a license based in part on the activities of an authorized user under a separate license in the following cases:

EA 87-223, Wrangler Laboratories, Larsen Laboratories, Orion Chemical Company, and Mr. John P. Larsen, NUREG-0940, Vol. 10, No. 4.

EA 90-072, Porter Memorial Hospital, NUREG-0940, Vol. 9, No. 4.

EA 89-257, American Radiolabeled Chemicals, NUREG-0940, Vol. 9, No. 3.

EA 86-41, Valley Radiology Associates, Inc., NUREG-0940, Vol. 5, No. 4.

EA 86-17, Radiation Technology, Inc., NUREG-0940, Vol. 6, No. 1.

This response is based on individual recollection and is not meant to be exhaustive.

There is no automated data search or retrieval system that the staff could use in responding to this interrogatory.

b) Information regarding NRC enforcement actions is provided in NUREG-0940, which is available in the Commission's PDR. Also, information regarding NRC enforcement action is provided in a WESTLAW database, "FEN-NRCEA" in WESTLAW.

## INTERROGATORY 10

a) Identify the individual(s) who provided responses to all of the discovery requests contained herein on behalf of the NRC.

b) For each individual identified, provide their title and a detailed description of their duties.

c) Identify each discovery request(s) to which each individual provided the answers or any portion thereof.

## RESPONSE

Ms. Patricia Santiago and Dr. John Glenn provided responses to the discovery requests contained herein. See the attached affidavits, position statements, and statements of professional qualifications of Ms. Santiago and Dr. Glenn.

## **REQUEST FOR PRODUCTION 3**

Provide copies of all documents identified in response to interrogatories 8, 9, 10 and 12.

### RESPONSE

The Staff is not responding to Interrogatories 8 and 12 because the information sought is the subject of the April 26, 1994 stay of discovery in this proceeding.

With respect to Interrogatory 9, information regarding NRC enforcement actions is provided in NUREG-0940, which is available in the Commission's PDR. Also, information regarding NRC enforcement action is provided in a WESTLAW database, "FEN-NRCEA" in WESTLAW.

With respect to Interrogatory 10, the affidavits, position statements, and statements of professional qualifications of Ms. Patricia Santiago and Dr. Glenn are attached hereto. INTERROGATORY 11

For each individual identified in response to interrogatory 10, identify any and all documents and persons consulted in preparing the answers to the discovery requests.

## RESPONSE

Ms. Santiago and Dr. Glenn contacted the following people: Mr. Joseph DelMedico, Enforcement Specialist, Geoffrey Cant, Enforcement Specialist, James Lieberman, Director, Office of Enforcement, Daniel J. Holody, Enforcement Officer, Region I, Robert W. DeFayette, Director of Enforcement and Investigations, Region III.

Ms. Santiago and Dr. Glenn consulted NUREG-0940.

## **REQUEST FOR PRODUCTION 4**

Provide copies of all documents identified in response to interrogatory 10.

## RESPONSE

See Staff's response to Request For Production 3.

## **REQUEST FOR PRODUCTION 5**

Provide copies of any and all documents relied upon by the NRC in preparing their responses to these discovery requests.

#### RESPONSE

See Staff's response to Request For Production 3.

### **INTERROGATORY** 14

Explain in detail how the conduct of Dr. James Bauer in November 1992 violated:

- a) The OSC license;
- b) Any and all regulations;
- c) Any other controlling law.

#### RESPONSE

a) See Staff response to interrogatory 14b. The license issued to OSC states that it is subject to all applicable regulations of the NRC. This includes the regulations in 10 C.F.R. Part 20 and Part 35.

The conduct of Dr. Bauer in November 1992, as cited in the b) November 16, 1993 Suspension Order, violated 10 C.F.R. § 20.201(b), which requires that the licensee make or cause to be made such surveys as (1) may be necessary to comply with the regulations in 10 C.F.R. Part 20, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. A wallmounted radiation monitor was flashing the red alarm signal to indicate the presence of radiation even through the HDR console indicated that the radiation source was safely parked in the shielded position. One of the attending technologists informed Dr. Bauer that there was a problem with catheter number five of the HDR unit and that the red alarm signal was flashing. In the presence of conflicting information from the HDR console and the room radiation monitor, as well as the information provided to Dr. Bauer by the attending technologist, a survey should have been conducted as required by 10 C.F.R. § 20.201(b). Under the circumstances described above, such a survey would have been reasonable. In addition, such a survey was necessary to comply with 10 C.F.R. § 20.101, which limits radiation exposure to individuals in restricted areas, and 10 C.F.R. § 20.105(b), which limits radiation levels in unrestricted areas. Dr. Bauer, as the sole authorized user present, failed to make, or cause to be made, the required survey. The other licensee employees present during the event were acting under the supervision of Dr. Bauer pursuant to 10 C.F.R. § 35.11(b) and 10 C.F.R. § 35.25.

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c. The Staff is unaware of how the conduct of Dr. Bauer in November 1992, as cited in the November 16, 1993 Suspension Order, violated "any other controlling law."

#### **REQUEST FOR ADMISSIONS**

#### **REQUEST 1**

Dr. Bauer's failure to survey Mildred Colgan with a hand held survey meter at the conclusion of her HDR treatment was not a violation of the OSC license.

#### RESPONSE

Deny.

### REQUEST 2

If the response to 1 is anything other than an unqualified admission, provide a written detailed explanation for your answer.

#### RESPONSE

While it is true that no specific license condition required the licensee to survey the patient at the conclusion of the treatment, the OSC license is issued subject to all applicable regulations of the NRC, including the regulations of 10 C.F.R. Parts 20 and 35. However, if the licensee had complied with item 6 of the August 2, 1990 letter referenced in license condition 17, Dr. Bauer would have most likely detected radiation and would have most likely avoided the consequences of the exposures. Although not cited, Dr. Bauer's specific failure to survey the patient with a hand held (the Staff interprets this to mean portable) survey meter at the conclusion of the patient's HDR treatment (as opposed to his failure to perform an area survey pursuant to 10 C.F.R. § 20.201) is a violation of 10 C.F.R. § 35.404(a). Moreover, given the circumstances that existed at the time, the patient should have been included in any survey performed pursuant to 10 C.F.R. § 20.201(b).

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Respectfully submitted,

Catherine L. Marco

Catherine L. Marco Counsel for NRC Staff

Dated at Rockville, Maryland this 4th day of May, 1994

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

## BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	
INDIANA REGIONAL CANCER CENTER	Docket No. 030-30485-EA
(Byproduct Material License No. 37-28179-01)	EA No. 93-284

# AFFIDAVIT OF PATRICIA A. SANTIAGO

I, Patricia A. Santiago, first being duly sworn, depose and state:

1. I am currently employed as the Assistant Director for Materials, Office of Enforcement, U.S. Nuclear Regulatory Commission.

2. I have participated and assisted in the preparation of the attached NRC Staff responses to interrogatories 9 and 14, and request for admission 1, filed by the Indiana Regional Cancer Center and Dr. James E. Bauer on April 20, 1994, in the above-captioned proceeding. 3. I hereby certify that the answers to the above-numbered interrogatories and the request for admission are true and correct to the best of my information and belief.

Alina A

Patricia A. Santiago Assistant Director for Materials Office of Enforcement

Subscribed and sworn to before me this 444 of May, 1994

Mint Durden Notary Public

My commission expires: December 1, 1995

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

## BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )	
INDIANA REGIONAL CANCER CENTER ) INDIANA, PENNSYLVANIA )	Docket No. 030-30485-EA
(Byproduct Material ) License No. 37-28179-01) )	EA No. 93-284

# AFFIDAVIT OF JOHN E. GLENN

I, John E. Glenn, first being duly sworn, depose and state:

1. I am currently Chief, Medical, Academic, and Commercial Use Safety Branch, Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission.

2. I have participated and assisted in the preparation of the attached NRC Staff responses to interrogatory 14, and request for admission 1, filed by the Indiana Regional Cancer Center and Dr. James E. Bauer on April 20, 1994, in the above-captioned proceeding.

I hereby certify that the answers to the above-numbered interrogatory and the 3. request for admission are true and correct to the best of my information and belief.

John E. Glenn Chief, Medical, Academic, and Commercial Use Safety Branch Nuclear Material Safety and Safeguards

Subscribed and sworn to before me this 444 of May, 1994

Juden Notary Public

My commission expires: December 1, 1995

Statement of Professional Qualifications for Patricia A. Santiago

Current Titles and Business Address:

Assistant Director for Materials, Office of Enforcement U. S. Nuclear Regulatory Commission Mail Stop 7H5 Washington, D. C. 20555

Experience: Enforcement Specialist (Rotational Assignment, July 1992 to 3/93), Office of Enforcement, NRC

Health Physicist, (July 1991 to 3/93) Office of Nuclear Materials Safety and Safeguards, NRC

Chief, Health Physics, Safety Office, U. S. Army Materiel Command (AMC), Department of Army, Alexandria, VA, July 1986 to June 1991.

Health Physicist, Safety Office, U. S. Army Materiel Command (AMC), Department of Army, Alexandria, VA, January 1984 to June 1986.

Health Physicist, Safety Office, U. S. Army Communications-Electronics Command, U. S. Army Materiel Command, Department of Army, Ft. Monmouth, NJ, July 1981 to December 1983.

Consultant (Part time), Porter Consultants, Inc., Argyle, PA., April 1984 to December 1983.

Supervisor, Radioactive Materials, Bureau of Radiation Protection, Department of Environmental Protection, State of New Jersey, June 1980 to July 1981.

Radiation Physicist, Bureau of Radiation Protection, Department of Environmental Protection, State of New Jersey, January 1980 to June 1980.

Nuclear Medicine Technologist, St. Peter's Medical Center, New Brunswick, NJ, January 1979 to January 1980.

Nuclear Medicine Technologist, Jersey Shore Medical Center, Neptune, NJ, May 1976 to January 1979.

Education: Rutgers University, New Brunswick, N. J., (1976-1983) 40 graduate credits in Radiation Physics, Radiation Biology, Radiation Chemistry, Internal Dosimetry, Radiation Instrumentation, Nuclear Engineering.



Statement of Professional Qualifications for Patricia A. Santiago (continued)

John F. Kennedy School of Nuclear Medicine, Edison, N.J. Nuclear Medicine Technologist Certificate.

Monmouth College, W. Long Branch, N.J., (1971-1975) B.S. Biology.

Training:

NRC, <u>Project Managers Acquisition</u>, (40 hr), 1991. AMC, <u>Total Quality Management for Managers</u>, (40 hr), 1991; (24 hr), 1989.

AMC, Flag Officer Nuclear Accident Course, (16 hr), 1990.

AMC, Personnel Management, (40 hr), 1988.

Army, Executive Environmental and Hazardous Materials Seminar, (16 hr), 1987.

OPM, <u>Personnel Management for the Executive</u>, (80 hr), 1986.

DOE, DOT Regulations for Radioactive Materials, (40 hr), 1985.

AMC, <u>Depleted Uranium Safety</u>, (40 hr), 1984. Brookhaven National Lab, <u>Advanced Health Physics</u> <u>Problems</u>, (80 hr), 1983.

OSHA, Nonionizing Safety, (80 hr), 1982.

Oak Ridge Associated University (ORAU), <u>Personnel</u> Dosimetry, (40 hr), 1982.

ORAU, Internal Dosimetry, (40 hr), 1982.

FEMA, <u>Emergency Response for Nuclear Stations</u>, (80 hr), 1981.

NJ State, <u>Emergency Response</u>, (40 hr), 1980. DuPont, <u>Quality Control in Radiographic</u>

Procedures, (80 hr), 1980.

Society of Nuclear Medicine, <u>Quality Control in</u> Nuclear Medicine, (12 hr) 1979. Position Statement of Patricia A. Santiago

Assistant Director for Materials/1306/GG-15

## Office of Enforcement

#### FUNCTIONAL' STATEMENT

As the Assisstant Director for Materials, assists the Director, Office of Enforcement (OE), in the development and management of the NRC Enforcement Program for other than Part 50 and 55 licensees, including assessment of program effectiveness and implementation, and reviewing enforcement cases for technical accuracy and agency wide consistency.

#### REGULAR DUTIES

Assists in initiating escalated enforcement actions when warranted and processes escalated enforcement cases. Ensures that the Commission, the Congress, and the public are accurately and promptly informed about significant enforcement cases.

Is responsible to the Director, OE, for assessing the enforcement activities for other than Part 50 and Part 55 licensees of the Regional Offices to assure that such activities are conducted consistent with the enforcement policy and implementing procedures. Effects corrective actions when necessary.

Supervises the work of other professionals in the office with regard to enforcement matters for other than Part 50 and 55 licensees.

Conducts special studies and analyses of the Enforcement Program and its implementation by the regions. Identifies problems and issues for such studies. Provides recommendations for OE management consideration.

Reviews the enforcement policy statement and other enforcement guidance, including the preparation of reports and presentations to the Commissioners. Prepares and coordinates guidance to OE and the regions and develops implementation plans and procedures where necessary. Reviews the OE Manual for currency, consistency and effectiveness and providing appropriate revisions.

Reviews proposed escalated enforcement actions for technical accuracy, agency wide consistency and for conformance to NRC policy and criteria.

Evaluates enforcement history for feedback to the program and for improvement of licensee performance. Reviews and appraises regional enforcement actions for uniformity and effectiveness of OE enforcement criteria. Coordinates and standardizes OE appraisal of regional implementation of the Enforcement Program

## Independent Action:

Analyzes: Individual enforcement cases that propose or impose a civil penalty or issuance of an Order to suspend, modify, or terminate a license or require the taking of a specific action for technical adequacy and for conformance to NRC policy and criteria; OE enforcement history and licensee enforcement performance.

- Recommends: Changes in enforcement policy and criteria for imposing sanctions against a licensee, based on OE experience and the results of studies.
- Approves: Detailed administration of the work of task forces or contractors that are studying the enforcement program and developing and evaluating alternatives or modifications to them.

Details of what should be examined during appraisals of the enforcement program. Approves conclusions of reports of these appraisals.

Provides authoritative advice to regional offices on individual: cases or broader policy and procedure matters within the framework of OE and NRC policy to facilitate rapid resolution in the handling of noncontroversial enforcement matters.

Concurs in enforcement cases and forwards to the Director, Office of Enforcement for concurrence.

Responsible to the Director, Office of Enforcement, for the supervision of enforcement actions for other than Part 50 and 55 licensees.

Acts for the Director, Office of Enforcement, as directed.

SUPERVISION EXERCISED:

Supervises the Material Enforcement Staff.

#### WORKING CONDITIONS:

Normal office conditions with occasional travel to Regional Offices and licensee facilities where varying conditions exist.

#### EFFORT:

Normal, except for physical effort, such as walking and climbing, exposure to construction hazards and exposure to inclement weather encountered in occasional visits to licensee facilities. Ability to coordinate and standardize OE appraisal of regional enforcement performance and the ability to perform regulatory analysis and interpretation.

Ability to communicate complex issues effectively both orally and in writing. Ability to summarize diverse technical issues associated-with-complicated technical problems, noncompliance with NRC rules and regulations and matters involving protection of public health and safety to reach rational conclusions as to enforcement policy. Ability to independently obtain facts and data to support evaluations and conclusions.

Ability to independently manage, organize, plan and carry to completion special tasks and assignments.

Ability to negotiate positions, resolve differing views and ability to supervise persons with technical skills.

#### CONTACTS

Frequent contacts with NRC management, Division Directors, and senior staff, the Regional Administrators, Deputy Regional Administrators, and Regional Division Directors, with NMSS senior staff, and with the Office of the General Counsel in developing and maintaining the enforcement policies and procedures, practices and problems concerning the enforcement program, and the review of specific cases. Occasional contact with the Commissioners and their staffs on significant enforcement matters.

Frequent contact with middle and top management personnel of other NRC organizations concerning the handling and resolution of problems associated with enforcement matters and to maintain a technical proficiency and understanding of latest developments in reactor and radiological technologies.

Occasional contacts with engineering specialists assigned to assist NRC personnel in the technical investigation of unusual events pertaining to licensed facilities or materials.

#### RESPONSIBILITY FOR DECISIONS:

### Supervision Received:

Director, Office of Enforcement (SES).

General Supervision "A."

Guidelines are the Administrative Procedures Act, NRC regulations, rules, license provisions and practice, precedent, procedures and judgment gained by experience in areas not specifically covered by NRC and OE procedures. and suggests improvements in technical accuracy, timeliness, and effectiveness based on practical experience and program needs.

Establishes and maintains systems for providing guidance to the Regional Offices, evaluating licensee enforcement performance, evaluating and analyzing the entire enforcement program, generating recommendations for program revisions based on evaluation and analysis, classifying and analyzing the various types of enforcement actions, and evaluating the impact of enforcement actions.

Advises the Director regarding proposed regulations, legislation, and federal court decisions with enforcement program implications.

Maintains systems for controlling and following up enforcement actions, including maintaining current status, establishes systems for processing of various types of enforcement actions, and expedites the completion of enforcement actions.

Uses Enforcement Action Tracking System and monitors the accuracy and effectiveness of the system for OE users.

Responds for the Director, OE to administrative requests for information regarding budget, resources, enforcement policy and procedures, enforcement statistics and other assigned subjects.

#### BASIC SKILLS

Knowledge of the principles, theory and practices as well as experience and training in one of the engineering or scientific disciplines associated with the fields of health physics in order to be able to recognize the implications and severity associated with technical problems arising from a Regional Office inspection and enforcement program, and to provide guidance to the region regarding enforcement policy. Regional operations involve inspection and enforcement activities concerning radiological and environmental protection.

Demonstrated ability to perform and monitor studies leading to the development of enforcement policies and programs, resource requirements and other management decisions.

Ability to recognize the implications and severity associated with technical problems arising from a Regional Office inspection and enforcement program, and to provide guidance to the region regarding enforcement policy.

Knowledge and understanding of and ability to apply NRC policies, practices and regulations and OE enforcement policies, criteria and responsibilities.

## JOHN E. GLENN

## EDUCATION

B.A. - Physics - College of Wooster - 1963

Ph.D. - Nuclear Physics - University of Pittsburgh - 1968

### EMPLOYMENT

Research Associate - University of Colorado - 1968-1970

Assistant Professor of Physics - Ohio Northern University - 1970-1973

Supervisor of Health Physics and Safety, Mallinckrodt Nuclear, Carlstadt, New Jersey - 1973-1976

Radiation Specialist, U. S. NRC - Region I - 1976-1981

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Section Leader, Nuclear Materials Safety Section, NRC - Region I - 1981-1989

Branch Chief, Medical, Academic and Commercial Use Safety Branch, Office of Nuclear Materials Safety and Safeguards - 1989 - Present

## POSITION STATEMENT OF JOHN E. GLENN, CHIEF, MEDICAL, ACADEMIC AND COMMERCIAL USE SAFETY BRANCH OFFICE OF NUCLEAR MATERIAL SAFETY & SAFEGUARDS

Conducts health physics, radiation safety, and other appropriate analyses, licensing and follow-up reviews of by-product, medical, academic, industrial, and other source and special nuclear materials including, as necessary, preparation of environmental assessments and impact statements. Provides oversight and programmatic direction for the programs in the Regions related to these activities. Develops and directs implementation of policies and programs for inspection of licensees and others subject to NRC jurisdiction. Reviews Regional materials licensing and inspection programs for technical adequacy and consistency. Provides technical support for training of Regional and Agreement State materials licensing and inspection staff. Provides technical support and guidance to the Regions on material licensing and inspection activities, and upon request, to the Agreement states. Reviews programmatic activities and develops technical and policy options for regulations, regulatory guides, and policy statements. Provides technical support for incident and emergency response.

# MOHAMED M. SHANBAKY

ORGANIZATION:	U.S. Nuclear Regulatory Commission (NRC) Region I
<u>Title</u> :	Chief, Research and Development Section
Education:	<ul> <li>Ph.D. Health Physics and Environmental Health, Purdue University, Lafayette, Indiana, 1975</li> <li>M.S. Health Physics and Environmental Health, Purdue University, Lafayette, Indiana, 1973</li> <li>B.S. Biological Sciences, Ain-Shams University, Cairo, Egypt, 1967</li> </ul>

#### Experience :

A. September 1993 - Present : Chief, Research and Development Section

As Chief, Research and Development Section, administers the regional program for the licensing and licensing and inspection of materials licensees. Supervises special inspections of a wide variety of occurrences involving such licensees and/or radioactive material. Materials licensees possess, use, transport and dispose of various kinds and quantities of source, byproduct and special nuclear materials for research and development, industrial, and instructional purposes. The licensing and inspection program objective is to assure that these activities are conducted safely and in compliance with NRC requirements in order to protect the public health and safety and environmental values.

B. May 1989 - September 1993 : Chief, Medical Inspection Section

As Chief, Medical Inspection Section, administers the regional program for the routine licensing and inspection materials licensees. Supervises special inspections of a wide variety of occurrences involving such licensees and/or radioactive material. Materials licensees possess, use, transport and dispose of various kinds and quantities of source, byproduct and special nuclear materials for research and development, industrial, instructional and medical purposes. The licensing and inspection program objective is to assure that these activities are conducted safely and in compliance with NRC requirements in order to protect the public health and safety and environmental values.

C. October 1982 - May 1989, Chief, Facilities Radiation Protection Section

As Chief, Facilities Radiation Protection Section, supervised the implementation of a Regional program for the routine and reactive inspection of reactors and fuel cycle facilities during construction, testing, operation or decommissioning within the areas of radiological protection and management of radioactive waste and effluents, including transportation from such facilities,

to assure the safety of NRC licensed facilities and activities, compliance with NRC requirements and to enforce the provisions of NRC permits, licenses, rules, regulations, orders and other directives pertinent to the protection of the public health and safety and the common defense and

D. September 1975 - December 1979, Radiation Specialist, NRC, Region I

Performed inspection/investigation of all aspects of radiological monitoring programs at nuclear facilities, documentation of inspection/investigation findings, and review and evaluation of routine and non-routine reports and events related to the protection of the public health and the environment. In March 1979, I responded to the TMI-2 accident with the responsibilities for coordinating a national effort for acquisition and the transport of health physics equipment and materials to the site; onsite coordination of NRC environmental radiological surveillance and offsite dose calculations and briefings of NRC Management on radiological and environmental matters.

E. Graduate Assistant, Purdue University September 1971 - August 1975

Responsibilities included technical and administrative assistance to the Purdue heavy metals research group; provided technical and administrative assistance to the Purdue University Committee on Use of Human Subjects; radiological surveillance of Purdue laboratories, accelerators and the research reactor; calibration of radiation detection instrumentation; and teaching undergraduate courses.

F. Technical Assistant, Purdue University November 1969 - 1970

Microbiological assay of antibiotics, vitamins and related compounds.

G. Epidemiologist, Department of Public Health, Egypt August 1967 - February 1969

Evaluation of the effectiveness of different pesticides and drugs in tropical and epidemic disease control, eradication, and environmental impact assessment of pesticides.

1. Qualifications of Penny A. Nessen

Penny A. Nessen Health Physcist Medical Inspection Section

#### EDUCATION

B.S., 1990, University of Kentucky - Lexington, KY (Health Sciences)

#### PROFESSIONAL EXPERIENCE

9/90 to present, Health Physicist, Medical Inspection Section, Nuclear Materials Safety Branch, USNRC Region I Performance Award 6/91 Performance Award 1/92 Performance Award 5/92 Performance Award 5/93

5/90-9/90, Health Physics Intern, EG&G, contractor for Department of Energy, Miamisburg, OH

NRC INSPECTOR CERTIFICATION

May 1991

## NRC TRAINING

Fundamentals of Inspection OSHA Orientation Health Physics Technology Nuclear Gauge Training Nuclear Medicine-Diagnostic and Therapeutic Teletherapy and Brachytherapy Sexual Harassment MORT Accident/Investigation Workshop Transportation of Radioactive Material Safety Aspects of Industrial Radiography Communication for NRC Inspectors Inspecting for Performance Skin Dosimetry Workshop 10 CFR 20 Training Avoiding Prejudiced Behavior Preventing Sexual Harassment Site Access Training

## GEORGIA INSTITUTE OF TECHNOLOGY MASTERS PROGRAM COURSES

Biological Effects of Radiation Radiation Dosimetry Radiation Detection Radiological Engineering Design Project Environmental Surveillance and Radioactive Waste Disposal Health Physics Practice Medical Usage of Radioisotopes Industrial Hygiene Principles of Nuclear Physics Experimental Statistics

2. Training received in brachytherapy or HDR brachytherapy

NRC Teletherapy and Brachytherapy Course, April 1991. I have also had various medical physics courses in brachytherapy and teletherapy dosimetry at the University of Kentucky.

# DOCKETED

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

# '94 MAY -5 P3:53

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD FICE OF SECRETARY DOCKETING & SERVICE BRANCH

In the Matter of	)
INDIANA REGIONAL CANCER CENTER INDIANA, PENNSYLVANIA	) Docket No. 030-30485-EA
(Byproduct Material License No. 37-28179-01)	) EA No. 93-284

## CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO INTERROGATORIES, REQUESTS FOR PRODUCTION OF DOCUMENTS AND ADMISSIONS DIRECTED TO THE STAFF DATED APRIL 20, 1994" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or an indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system this 4th day of May, 1994:

G. Paul Bollwerk, III, Chairman\* Administrative Judge Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dr. Charles N. Kelber\* Administrative Judge Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dr. Peter S. Lam\* Administrative Judge Atomic Safety and Licensing Board.<sup>1</sup> U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Iles Cooper, Esq. Counsel for Indiana Regional Cancer Center and James E. Bauer, M.D. Williamson, Friedberg & Jones One Norwegian Plaza P.O. Box E Pottsville, PA 17901

Office of the Secretary (2)\* U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Attn: Docketing and Service Section Atomic Safety and Licensing Board\* Panel (1) U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Adjudicatory File (2)\* Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Office of Commission Appellate\* Adjudication (1) U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Catherine L. Marco

Counsel for NRC Staff