



# THE DOW CHEMICAL COMPANY

MIDLAND, MICHIGAN 48674

June 9, 1987

Mr. Bruce Mallet  
Chief, Licensing  
U.S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

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Remitter *537429*  
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Date *6/15/87*  
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Dear Mr. Mallet:

This letter serves two purposes pertaining to The Dow Chemical Company's current NRC license (License 21-00265-06/Docket #ENM-1451/07001487). It is intended to inform your organization of the status of the use of licensed radioisotopes at Dow, and to amend our current license to increase our license limits of radionuclides in order to permit the future activities of certain research groups. Secondly, this letter will serve to notify you of organizational changes in the radiation protection personnel identified in our current license.

At this time, research groups of Dow are involved in the development of a tumor specific radioisotope labeled material which has shown potential for future use in cancer therapy. The effectiveness of the drug is based on its high specific activity; therefore, only isotopes with short half lives (usually less than ten days) are being considered. The rapid decay of these isotopes creates obvious problems in creating an effective product when the experimental work-up may take several days. Therefore, larger quantities of radioisotopes have to be ordered and utilized to assure a therapeutic dose of the final product.

Currently, The Dow Chemical Company is licensed to inventory up to 1 Curie of any loose by-product material with atomic numbers 3-83. At this time we would like to request to have our NRC license amended to increase our by-product license limits to 3 Ci (maximum) of nuclides with atomic numbers 3-83. This increase will be sufficient to allow this research to continue throughout the research, development and production phases of this experimental drug. The utilization of this drug at Dow will be limited to laboratory animal research.

Also, at the present time, The Dow Chemical Company has made some personnel changes in our radiation safety program and would like to take this opportunity to incorporate these organizational changes in our

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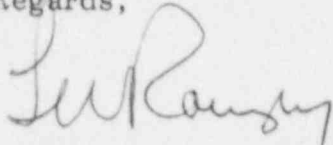
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current NRC license. Mr. Tracy Parsons is no longer providing radiological support. In December 1986, Mr. Scott W. Maxey, a health physicist, was hired into the company and will provide technical support and radiation safety training with Mr. Thomas D. Bradley, an industrial hygienist with several years of health physics experience (resumes attached). Mr. Gordon W. Engdahl will remain the Radiation Safety Officer (RSO) and at this time there are no changes in the Dow Radiation Safety Committee (RSC).

If you need any further information or have any additional questions, please contact Gordon Engdahl (517/636-3205) or Scott Maxey (517/636-1536).

Regards,



L. W. Rumpy, Chairman  
Radiation Safety Committee  
Industrial Hygiene Laboratory  
Health & Environmental Sciences  
1803 Building  
517/636-6260

dld

Attachments (2)

SCOTT W. MAXEY

The Dow Chemical Company  
Midland, Michigan 48674  
(517) 636-1536

EDUCATION

Master of Science Degree in Health Physics from Colorado State University. Graduated October 1986.

Bachelor of Science Degrees. Graduated 1984 from Colorado State University. Double major in Biochemistry and Biological Sciences; minor in Chemistry.

RELATED  
COURSES

Radiological Physics and Dosimetry I and II, Radiochemistry, Radiation Biology I and II, Nuclear Engineering, Radioecology, Radiation Public Health, Nuclear Electronics

PROFESSIONAL  
SOCIETIES

National Health Physics Society. Rocky Mountain Chapter of the Health Physics Society. American Association of Medical Physicists

WORK  
EXPERIENCE

December 1986 to Present. Health Physicist for The Dow Chemical Company. Responsibilities include training of isotope users, licensing, meter calibration, rad waste management, and general health physics support and RSO responsibilities.

August 1985 to October 1986. Graduate Research Assistant in the gamma spectroscopy, Biomonitoring Laboratory of Colorado State University. Responsibilities included Environmental surveillance of the Fort, St. Vrain Nuclear Power Reactor. Duties entailed sample collection, preparation and analysis.

June 1986. Health Physicist support for the Uranium Mill Tailings Remedial Action Program; Grand Junction, Colorado. Observed and critiqued present practices and made suggestions for future improvements.

January 1984 to June 1984. Teacher's aid and tutor for several general physics classes. Teaching of laboratory exercises and answering of general physics material questions.

Professional Conferences  
Attended:

1987	Radiation Safety Officers' Course: The University of Texas, Health Science Center, Medical School of Continuing Education Services, San Antonio, Texas 78284
1982	NIOSH P.A.T. Program: Asbestos
1981	Symposium for Protection of the Sensitive Worker Tucson, Arizona
1980	29th Industrial Ventilation Conference Michigan State University East Lansing, MI
1978	NIOSH: Course #501; Occupational Exposure Sampling Strategy, Cincinnati, Ohio

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# CURRICULUM VITAE

THOMAS DAVID BRADLEY

Business: Dow Chemical U.S.A.  
Michigan Division  
Industrial Hygiene Services  
25G Building  
Midland, MI 48667  
Phone: (517)636-9075

Education: 1974 - 1977 BS/Biology  
Saginaw Valley State College  
University Center, MI

1970 - 1974 Delta College  
University Center, MI

1965 - 1967 Ferris State College  
School of Pharmacy  
Big Rapids, MI

Employment: 1980 - Pres. Dow Chemical U.S.A.  
Michigan Division  
Industrial Hygiene Services

1979 - 1980 Dow Chemical U.S.A.  
Safety/Health  
Agriculture Production Department

1977 - 1978 Dow Chemical U.S.A.  
Environmental Services  
Special Environmental Projects

1970 - 1975 Dow Chemical U.S.A.  
Agriculture Production Department

1967 - 1969 U.S. Army  
Medical Corps  
Medical Specialist

1967 Dow Chemical U.S.A.

Professional Membership: Health Physics Society