

MONARCH

ANALYTICAL LABORATORIES, INC.

(Formerly Owens-Illinois Analytical Services)

P.O. BOX 2990 • TOLEDO, OH 43606 • (419) 535-1780

February 9, 1988

United States Nuclear
Regulatory Commission
Attn: Ms. Evelyn R. Matson
Materials Licensing Section
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

REF: Control Number 83469
License Number 34-24962-01

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Log	<i>Lib 2/24</i>
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Class No.	<i>5723</i>
Amount	<i>760</i>
Fee Category	<i>30</i>
Type of Fee	<i>and</i>
Date Check Recd.	
Date Completed	<i>2/24/88</i>
By:	

Dear Ms. Matson:

As the result of an inspection on January 27, 1988 of our activities under License Number 34-24962-01 we request the following amendments to our License.

Item 11. Add the names of the users and direct supervisors of other users of the chromatographs containing Nickel-63 and Hydrogen-3: Dr. Dennis A. Brengartner, W. H. Greive, and James P. Hojnicky. They are professional chemists well versed in the use of this equipment and have been with the laboratory for 18, 28, and 14 years respectively. Their resumes are attached.

In addition, the inspector (James R. Mullauer) pointed out that items 10.1 and 10.2 of our application dated April 22, 1987 which specify a badge exchange program and annual calibration of our survey meters are unnecessary for the purpose of our license and should be dropped as a requirement. Because our laboratory uses x-ray and electron beam devices we will retain the survey meters and badge exchange program as part of our Safety program.

Enclosed is our check for \$60.00, the fee for a Category 3P amendment.

Sincerely,

Ernest L. Lippert, Jr.

Ernest L. Lippert, Jr.

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REGION III

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CONTROL NO 84902

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Dr. Dennis Brengartner, Monarch's Secretary and Laboratory Manager received the A.B. in Chemistry from Miami University, Oxford, Ohio, and the Ph.D. in Analytical Chemistry from the Ohio State University, Columbus, Ohio. In addition he earned an M.B.A. in Finance from the University of Toledo, Toledo, Ohio.

His 18 years industrial work experience at Owens-Illinois, Toledo, Ohio, includes a variety of assignments. These include Staff Scientist in X-Ray fluorescence spectrometry, gas analysis and environmental analysis, Group Leader of the Organic Analytical Laboratory, Senior Analytical Chemist in pollution monitoring and Manager, Analytical Chemistry Department.

Dr. Brengartner has published several scientific articles in various journals and is a member of the American Chemical Society, Sigma Xi, The Research Society of North America, and the American Society for Testing and Materials.

DENNIS A. BRENGARTNER
2806 MEADOWWOOD DR.
TOLEDO, OH 43606
(419) 531-7086

WORK HISTORY

1987 - present: Manager, Chemical & Physical Testing Dept.
Owens-Illinois, Inc.

1978-1987: Group Leader, Organic Analytical Section
Owens-Illinois, Inc.

I was responsible for a group which performed all of the organic analytical chemistry services within the company. My work included planning, coordination, and evaluation of research and service work as well as personnel evaluation and technical problem solving.

1977-1978: Senior Scientist, Owens-Illinois, Inc.

I was a professional staff member in environmental testing area, responsible for developing and adapting continuous pollution monitoring equipment.

1973-1977: Chief, Analytical Chemistry, Owens-Illinois, Inc.

I was the manager of a 25-member section responsible for all central analytical chemistry services. My work included the planning coordination and evaluation of projects and service work, personnel and salary administration, budgeting, and technical problem solving.

1970-1973: Analytical Chemist, Owens-Illinois, Inc.

I was a professional staff member in several areas, including X-ray fluorescence spectrometry, gas analysis, and environmental analysis.

ACADEMIC
TRAINING

M.B.A. (1981), Finance, The University of Toledo

Ph.D. (1970), Analytical Chemistry, The Ohio State University

A.B. (1975), Chemistry, Miami University

OTHER FORMAL
TRAINING

State University of New York at Albany X-Ray School, 1971.

Finnigan Institute:

Advanced Computer Programming, 1980

Analysis of Priority Pollutants, 1981

Flavor Research Short Course, 1984

PROFESSIONAL
MEMBERSHIPS

American Chemical Society, National & Local

American Chemical Society, Analytical Div.

American Society for Testing & Materials

Institute of Food Technologists

PUBLICATIONS

"The Formation Constants and Solvent Extraction of Lanthanide Complexes of 1,1,1,2,2,3,3-Heptafluoro-7,7-Dimethyl-4,6-Octanedione," *Analytica Chimica Acta*, 52, 173 (1970).

"Solvent Extraction Separations of the Lanthanides and Selected Metal Ions with 1,1,1,2,2,3,3-Heptafluoro-7,7-Dimethyl-4,6-Octanedione," *Analytica Chimica Acta*, 56, 39 (1971).

"Suggested Method for the Spectrochemical Analysis of Calcite Soda-Lime Glass Using an X-Ray Spectrometer," *American Society for Testing and Materials*, 1974 (published in 1977).

"Standards and Calibration Procedures for X-Ray Fluorescence Analysis of Soda-Lime Glasses," *American Ceramic Society Bulletin* 54, 1057 (1975).

"Characterization of Materials Extractable From Poly(ethylene terephthalate) Containers," a submission to the Society of the Plastics Industry, July, 1978.

"Analysis of Common Fatty Acid Glycerides By Gas Chromatography," *Analytica Chimica Acta*, 173, 177 (1985).

"The Determination of Fatty Acid Primary Amides by Capillary Gas Chromatography," *JOACS*, 63, 1340 (1986).

INTERNAL PUBLICATIONS AND SEMINARS

"Analysis of Noble Metal Resinate Solutions," 1970.

"The Determination of Trace Amounts of Mercury by the Flameless Atomic Absorption Method," 1971.

"Sampling and Determination of Oxides of Nitrogen in Stack Effluents," 1971.

"Analysis of the Gases in Bubbles and Blisters in Glass," 1972.

"X-Ray Fluorescence Spectrometry," 1973.

"Improvement of the Accuracy of Analytical Results Obtained by X-Ray Fluorescence Spectrometry."

- I. The CORSET Program, 1973.
- II. Soda-Lime Glasses: Standards and Analysis, 1973.

"Statistics for Practicing Analytical Chemists," 1975.

"Continuous Air Pollutant Monitoring," 1978.

Jim Hojnicky, Monarch's Chemical Laboratories Group Leader, received his B.S. in Chemistry Summa Cum Laude from the University of Toledo, and has taken additional course work toward the M.S. in Chemistry at Bowling Green State University, Bowling Green, Ohio. His 14 years experience in the analytical chemistry field were obtained at Owens-Illinois, Inc., Toledo, Ohio. His technical abilities are broad based with significant hands-on experience in both inorganic and organic methods of analysis. These include classical inorganic wet methods, ion chromatography, electrochemistry, gas chromatography, high performance liquid chromatography and gas chromatography/mass spectrometry. He has developed techniques and methods for characterizing taste and odor problems in polymer packaged products as well as electroanalytical methods for determining ultra trace levels of As, Se, and Sb.

Jim is a part-time instructor in Chemistry at the University of Toledo, Community and Technical College and is a member of the American Chemical Society.

1831 Strathmoor Ave.
Toledo, Ohio 43614

Home (419) 382-6000
Office (419) 247-8762

RESUME
OF
JAMES P. HOJNICKI
ANALYTICAL CHEMIST

OBJECTIVE: Professional staff position with responsibility for chemical analysis and analytical method development. Supervisory duties acceptable, but not required.

QUALIFICATIONS: Superior understanding of all aspects of analytical chemistry based on a sound educational background and thirteen years of experience in state-of-the-art industrial laboratories.

EDUCATION: B.S., University of Toledo, Toledo, Ohio, 1974, Summa Cum Laude, Chemistry.
Additional courses toward M.S., Bowling Green State University, Bowling Green, Ohio.

EXPERIENCE: 1974-Present Owens-Illinois Inc., Toledo, Ohio
Analytical chemist in Analytical Services Group. Responsible for the development and execution of methods for the analysis of glasses, ceramics, minerals, paper products, and polymers in support of manufacturing and product development in the packaging industry. Position demands complete understanding of wet chemical methods of analysis, and provides access to most modern analytical instruments.

EXPERIENCE: 1984-Present University of Toledo, Toledo, Ohio

Instructor in analytical chemistry responsible for the development of curriculum and laboratories in a two year program leading to the associates degree.

- responsible for the operation and maintenance of a state-of-the-art gas chromatograph/mass spectrometer system.
- responsible for the determination of trace monomers and additives in polymer formulations using gas chromatography and high performance liquid chromatography.
- developed numerous techniques for characterizing taste and odor problems in products contained in polymer packages.
- developed numerous methods for the determination of extremely trace levels of arsenic, antimony, and selenium using electroanalytical methods.
- participated in round robin analyses for national organizations including ASTM, and SPI.
- familiar with many analytical methods for environmental samples including EPA methods for sulfur oxides, nitrogen oxides, arsenic, fluorine, RCRA hazardous wastes and priority pollutants.
- participated in numerous continuing education programs including courses in gas chromatography/mass spectrometry, electroanalytical chemistry, ion chromatography, and high performance liquid chromatography.
- responsible for the supervision of several laboratory technicians.

PERSONAL DATA: Age 33, married, three children.
Excellent health.

HOBBIES: Golf, curling, cooking, jewelry making.

PROFESSIONAL SOCIETIES: Active member of the American Chemical Society

FURTHER DATA AND REFERENCES FURNISHED ON REQUEST

Bill Greive, Organic Chemist for Monarch, received a B.A. in Chemistry from the University of Toledo. His 35 year career as an analytical chemist includes employment with Toledo Edison Co., Toledo, and Owens-Illinois, Inc., Toledo, Ohio. In addition, he is a part-time Chemistry instructor at the University of Toledo, Community and Technical College.

Bill's 28 years with Owens-Illinois were marked by proficiency in the theory and application of UV and infrared spectroscopy, high pressure liquid chromatography, gas column and thin layer chromatography, and Fourier Transform infrared spectroscopy. He has made noteworthy contributions, especially in the area of plastics analysis.

Bill has published several articles in the scientific literature as well as presented his work before respected technical society meetings. He is presently serving as Chairman of subcommittee D-20.70.02 of the D-20 Committee on Plastics for the American Society for Testing Materials. Other professional affiliations include the American Chemical Society, Society of Plastics Engineer and Sigma Xi.

WILLIAM H. GREIVE

1441 Bradshaw Court, Maumee, Ohio 43537-2403
(419) 893-8508

OBJECTIVE

Research Chemist: A research-oriented position, related to the analytical chemistry of polymers and plastics, with subsequent presentation of documented results in meetings and publications.

EDUCATION

B.A. Degree, University of Toledo, 1975. Undergraduate Thesis:
The Comprehensive Analysis of Polyvinyl Chloride Compounds, 1976.

EXPERIENCE

Principal Scientist: Owens-Illinois, Inc. 1960-present. Organic Analytical Chemist, with activity in the following areas:

Analysis of Plastics for Additives and Monomers
Infrared and Ultraviolet Spectroscopy
High Pressure Liquid Chromatography
Gas, Column, and Thin-Layer Chromatography
Functional Group Analysis
Polymer Characterization
Fourier Transform Infrared Spectroscopy

Instructor: University of Toledo, Community Technical College
Chemistry Department, 1975-present.

Chemist: Continental Aviation and Engineering Corp. 1959-1960. Analysis of Ferrous and Non-Ferrous Alloys.

Technician: Toledo Edison Company, 1952-1954 and 1957-1959.
Analysis of Water, Coal and Oil.

MILITARY SERVICE

United States Marine Corps, 1954-1957, Sergeant.
Instrument Flight Instructor, Honorable Discharge.

PROFESSIONAL ORGANIZATIONS

American Chemical Society
American Society for Testing of Materials
D-20 Committee on Plastics
Chairman, D-20.70.02
Society of Plastics Engineers
Sigma Xi Honorary

COMMUNITY SERVICE

Lucas County Republican Central Committee, 1978-present
City of Maumee Parks and Recreation Advisory Committee, 1979-present
Chairman, Parks and Recreation Advisory Committee, 1980-present
Commissioner, Boy Scouts of America, 1968-1977
Scoutmaster, Boy Scouts of America, 1965-1968

PRESENTATIONS

Determination of Silicon in Siloxanes, Silicates, Sands, etc. Using Hydroxide Fusion, Winter ACS Meeting, Phoenix, AZ. (1966).

Near-Infrared Spectra of Some Silane Compounds, Society of Applied Spectroscopy Meeting, Chicago, IL. (1966).

The Determination of Acrylonitrile-Butadiene-Styrene Terpolymer in Polyvinyl Chloride Compounds Using Infrared or Near-Infrared Spectrophotometry, 25th Annual Technical Conference of the Society of Plastics Engineers, Detroit, MI. (1967).

Determination of Molecular Weight of Polyvinyl Chloride and Polystyrene Using Light Scattering, 27th Annual Technical Conference of the Society of Plastics Engineers, Chicago, IL. (1969).

Role of ASTM Committee D20.70.02: Liquid Chromatography as Related to Plastics, Chicago Plastics Analysis Division of the Society of Plastics Engineers, Chicago, IL. (1980).

SELECTED PUBLICATIONS

Deuterium Chloride and Deuterium Alcohols from Silane Derivatives, *Journal of Chemical Education*, 43, 381 (1966).

Effect of Water on Saponification of Organic Esters, *Analytical Chemistry*, 38, 1264 (1966).

The Determination of Acrylonitrile-Butadiene-Styrene Terpolymer in Polyvinyl Chloride Compounds Using Infrared or Near-Infrared Spectrophotometry, *Polymer Engineering and Science*, 8, 19 (1968).

Plastics Analysis, *Society of Plastics Engineers*, 25, 42 (1969).

The Study of Plastics: A Laboratory Exercise, *Laboratory Practice*, 27, 473 (1978).

PERSONAL

Born 1933, Bowling Green, Ohio. Married, two children.
Excellent health. Willing to relocate.

WILLIAM H. GREIVE

ADDENDUM TO RESUME

Owens-Illinois experience with activity in the following areas:

- Hi Cone Carriers and Materials
- High Density Polyethylene, Polyethylene Terephthalate and Polyvinyl Chloride materials used for containers by Plastics Products Division
- Polyvinyl Chloride, Polypropylene and Ethylene - Vinyl Acetate Copolymer materials used in the manufacture of closures.
- Surface treatments for glass used by Glass Container and Kimble Divisions.
- Glass resin materials manufactured by Television Products Division.
- Tall Oil and Paper Products produced by Forest Products Division.

CONTROL NO 8490 2

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

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: PROGRAM CODE: 03123
: STATUS CODE: 0
: FEE CATEGORY: _____
: EXP. DATE: 19920831
: FEE COMMENTS: _____

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A. REGION III

2. FEE ATTACHED
AMOUNT: 60.20
CHECK NO.: 5723

SIGNED _____
DATE 7/18/88

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED / ✓)

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT
RENEWAL
LICENSE

SIGNED _____
DATE _____