AMENDMENT TO LICENSE

9012120082 901204 REB3 LICSO 13-18685-01 PDC United States Nuclear Regulatory Commission September 27, 1990 RE: Alt & Witzig Engineering License No.: 13-18685-01

REQUEST FOR AMENDMENT TO LICENSE

ITEM 1 Condition 8 to be changed to read as follows:

- Maximum amount that licensee may possess at any one time under this license.
 - A. 15 sources not to exceed 10 millicuries each
 - B. 15 sources not to exceed 50 millicuries each
 - C. 50 sources not to exceed 10 millicuries each
 - D. 50 sources not to exceed 50 millicuries each
 - E. Two foil sources not to exceed 150 millicuries

ITEM 2 Condition 11B be changed to read as follows:

B. The Radiation Protection Officer for the activities authorized by this license is Dr. Swapan Ghosh.

ITEM 3 Condition 13 be changed to read as follows:

13. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have completed a safety training course given by an NRC designated individual and have been designated by the licensee's Radiation Safety Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.

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ITEM 4 Condition 10 be changed to read as follows:

10. Licensed materials may be used at 3405 West 96th Street, Indianapolis, Indiana, at temporary job sites and at branch offices of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.

ITEM 5 An internal audit system will be implemented to include the following:

- A. Physical inventory record of guages.
- B. Sign-out log maintained on each gurge.
- C. Semi-annual leak test reports.
- D. Spot checking reports on approved users.
- E. A list of qualified users with badge designations will be generated by RSO. This list will be posted in guage room and provided to all testing managers.
- ITEM 6 Requisition of New Guages. No guages will be purchased without a signed requisition form. This form must be signed by the RSO and president of the company.

RESUME

DR. SWAPAN GHOSH

Swapan (Sean) K. Ghosh, CPG, Ph.D. Senior Environmental Manager Environmental Services Division

Education

M.S. Geological Sciences, University of Wisconsin, Milwaukee, 1973

Ph.D. Geochemistry, Syracuse University, 1975

Professional Affiliation/Registration

Certified Professional Geologist, Indiana (#691)

Certified Professional Geologist, American Institute of

Professional Geologist (#7850)

Member, Geological Society of India

Member, American Geophysical Union

Member, National Water Well Association, AGSE

Member, Association of Hazardous Waste Managers

Member, Indiana Geologists

Member, Sigma Xi

Adjunct Associate Professor, Indiana University - Purdue

University, Indianapolis, Indiana

Experience

Senior Environmental Manager, Alt & Witzig Engineering, Inc., 07/89 - present

Project Manager and Group Leader, Superfund Section, Indiana Department of Environmental Management 08/86 - 07/89

Division Manager, Geosciences Division, Publication Division, Center for Earth Science studies, India, 06/80 - 03/84

Assistant Professor of Geology, Geology Department, Shiraz University, Iran, 09/75 - 05/80

Professional Capabilities

Dr. Ghosh is a Senior Environmental Manager of the Environmental Services Division of Alt & Witzig Engineering, Inc. His main function for the last four (4) years with Alt & Witzig and the Indiana Department of Environmental Management (IDEM) consisted of technical guidance on cleanup and overall management of a large number of Superfund, RCRA and LUST sites.

Dr. Ghosh's experience record as a geologist, hydrogeologist and environmental manager spans over 15 years which included both administrative and technical responsibilities.

Dr. Ghosh has experience in hydrogeological investigation, subsurface investigation including soil gas survey and geophysical investigation, remedial design and remediation of soils and groundwater contamination. He has specialized knowledge in designing sampling plans, data evaluation, site assessments, monitoring well installations, and other geologic and geochemical investigations.

Relevant Project Experience

While at IDEM, developed the State's Applicable Relevant and Appropriate Rules (such as solid waste, hazardous waste, NPDES, etc.) for several Superfund sites in Indiana.

Provided technical support to the legal counsel during Remedial Investigation for Superfund sites in Indiana.

Developed the entire plan and proposal for conducting the RI/FS for a State-lead superfund site and reviewed and approved RI/FS plans for three other superfund sites.

Developed plans for investigation and monitoring of contamianted aquifers at two sites in northern Indiana.

Developed the strategy for the operation and maintenance (O&N) for point-of-use and point-of-entry GAC filters in several sites throughout Indiana.

Performed several site assessments, remedial design of VOC-contaminated soils and groundwater using soil borings, soil sampling and analysis; groundwater monitoring, and soil gas surveys for site assessments. The remediation involved soil venting in combination with pump and treatment of groundwater by GAC. Additionally, he has developed remedial plan for soil which included bioremediation and excavation and disposal.

Developed sampling plan, sampling analysis and data evaluation for a closure of a RCRA facility.

Investigated the hydrocarbon and groundwater flow in a porous medium to determine their flow pattern and hydrocarbon recovery. This work included relating the physical and chemical properties of porous media to borehole geophysics and geology.

Conducted research on chemistry of soils, ground and surface waters, and petrophysical properties of bedrock.

Dr. Ghosh has published 35 technical papers on various aspects of soil chemistry, groundwater, surface water chemistry and sedimentology. He has presented his research results in seminars and meetings of the Geological Society of America, International Geochemical Society, International Association of Sedimentologists, Geological Congress of India, International Geological Congress, and the American Association of Petroleum Geologists.

Medical Qualifications & Health & Safety

Dr. Ghosh is medically qualified and health and safety trained to enter hazardous waste sites in accordance with OSHA 29 CFR 1910.120.