STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T MASON BUILDING, PO BOX 30028, LANSING MI 48909-7528

K. L. COOL, Director

July 18, 1996

Mr. Jack Parrott
U.S. Nuclear Regulatory Commission
Mail Stop T-8F37
Washington, DC 20555

Dear Mr. Parrott:

Pursuant to our discussion of earlier this week, enclosed are the resumes for our replacement Radiation Safety Officer and staff for inclusion in the Michigan Department of Natural Resource's (MDNR) Application for License and Possession of Material at the Hartley and Hartley Landfill MDNR-owned portion (Docket Number 40-09015). As discussed, Meg MacLeod was laid off in a reduction in force.

The 3 resumes enclosed are:

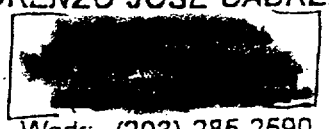
- Lorenzo Cabrera - new Radiation Safety Officer.
- Steven Masciulli - group leader.
- Dave Watters - field personnel.

If you have any questions or concerns regarding the materials submitted, please feel free to call me at 517-335-4036.

Sincerely,

Denise Gruben
Office of Litigation and Program Services
517-335-4036

Enclosures
cc: Mr. Gary Finkbeiner, AG
Mr. Christopher D. Dobyns, AG
Mr. David Minaar, MDEQ, Division of Radiological Health
Mr. Jean Claude Dehmel, SC&A
Mr. Joseph Basta, Dykema Gossett
Mr. Andrew Lonergan, ABB

LORENZO JOSÉ CABRERA

Exemption 6
Work: (203) 285-2590

EXPERIENCE:

April 94 - present

ABB Combustion Engineering Power Plant Support, Windsor, CT

Radiological-Project Engineer

Responsible for the development, implementation and maintenance of the Site Remediation Department's radiological programs and procedures. Supervise a staff of Health Physics Supervisors and Technicians on radiological license compliance and job specific activities.

Planning, scheduling, cost estimating, overseeing, and final reports of an installation of a waste water processing system (evaporator), radiological activities of a non-licensed 10,000 square foot building, radiological activities in soil and humus of a 20 acre parcel.

Perform inspections and audits of a 46,000 square foot building low enriched uranium Decommission & Decontamination (D&D) Project and operating Special Nuclear Materials license to ensure compliance with internal programmatic procedures and 10 CFR and 49 CFR. Wrote and implemented program for assaying and storage of LEU and HEU waste. Also performed a D&D liability review of a By-Product license to identify any reduction in future liabilities for the company. Wrote a Decommissioning Funding Plan for a broad scope license and performed evaluation for the disposal of mix waste.

Environmental-Support Engineer

Responsible for the development, implementation and maintenance of the Site Remediation Department's environmental programs and procedures. Supervise a staff of Health Physics Supervisors and Technicians on environmental license compliance and job specific activities.

Planning, scheduling, cost estimating, and overseeing of a RCRA Closure of a waste acid tank, phase I subsurface investigation of a former degreasing and pickling pit, and a closure of a less than 90 day container storage area.

Annual TIER II report, wrote Best Management Practice (BMP) plan, annual 40 CFR 61 Subpart H "National Emissions Standards for Hazardous Air Pollutants" (NESHAPS) report for several buildings, including determination of source terms, using COMPLY to perform pathway analysis.

Perform inspections and audits of operational manufacturing buildings and during a D&D project of a 46,000 square foot building to ensure compliance with internal programmatic procedures, 40 CFR, and state environmental regulations. Perform characteristic evaluation of unknown chemicals for hazardous and solid waste shipments. Developed a program for shipment of volumetric samples and review of TCLP results.

Industrial Safety-Support Engineer
Responsible for the development, implementation and maintenance of the Site Remediation Department's health & safety program. Supervise a staff of Health Physics Supervisors and Technicians on health & safety license compliance and job specific activities.

Developing and implementing a Department Safety Awareness program, Job Safety Analyses (JSA) for projects, and perform industrial safetyinspections and audits to ensure compliance with internal programmatic procedures and 29 CFR.

1993 - 1994 **Radiation Protection Specialist, Program Developer**
Developed operational and calibration procedures and training manuals for health physics technicians and assisted Radiation Safety Officer in daily activities. Developed, implemented and supervised the instrument calibration program. Developed training videos to ensure compliance with 10 CFR 19 & 20 and license requirements. Prepared an NRC license amendment concerning environmental and radiological issues. Wrote 1994 ALARA plan and the Radiation Protection Program manual in accordance with 10 CFR, 29 CFR, 40 CFR, and NRC license.

1993 - 1994 University of Massachusetts-Lowell, Lowell, MA
Health Physics Program Developer
Participated on a team which wrote a manual for use in training chemical and radioactive hazardous material workers at DOE and NRC licensed facilities under grant from Occupational Chemical & Atomic Workers Labor Institute. Researched, reviewed, and wrote chapters on health physics, environmental, and health & safety.

1981 - 1992 **Senior Health Physics Technician/Consultant**
Provided health physics coverage in all aspects of nuclear plant operations and technical support, including ALARA review, general employee training, environmental sampling and radwaste shipments, for eighteen nuclear power plants across the country.

EDUCATION **University of Massachusetts-Lowell, Lowell, MA**
B.S., Radiological Health Physics, [redacted]
M.S., Radiological Sciences and Protection, [redacted]
M.S. Candidate, Industrial Hygiene

Exemption 6

CERTIFICATION National Registry of Radiation Protection Technologists, December 1989

COMPUTER SKILLS WordPerfect 6.0 for Windows and Microsoft Office (Excel, Word, Power Point, project)

LANGUAGES Fluent in Spanish and English

ASSOCIATIONS Health Physics Society - National and regional chapter
American Industrial Hygiene Association - National and regional chapter

RESUME OF STEVEN MASCIULLI

Education

BS - Radiological Health Physics Lowell Technological Institute
Lowell, MA [redacted] EX 6
University of Southern California - New London, CT Study Center.
Completed 4 Systems Management Graduate Courses (1977)
New York University; New York, NY. Completed all course requirements for MS in Applied Science ([redacted]) EX6
University of Massachusetts, Lowell - (1/95 to present) completed seven courses towards an MS in Industrial Hygiene

Affiliations

Member - National Health Physics Society

Registration

Certified Health Physicist (Comprehensive)
Certified Health Physicist (Power Reactor Specialty)
Certified Safety Professional
Inactive Department of Energy "Q" Clearance

Engineering: Analysis, Design, Inspection/Audit, and Management

Over 20 years of diverse technical and managerial experience in the areas of radiological engineering, health physics, radioactive waste, and environment, health and safety; with solid industry (Consultant and Utility) and government (Department of Energy and Naval Nuclear Reactors) experience, including:

Consultant:

> ABB Support Services (6/95 - present) - Radiological Services Leader, Manager and Radiation Safety Officer responsible for development and implementation of radiation protection programs, to control residual radioactive material, and to perform decontamination and decommissioning activities. Provide Environmental Health and Safety consulting services.

> Lorenzo, Inc. (10/94 - 6/95) - Senior Technical Specialist providing environmental Health and Safety consulting services. Manager and Radiation Safety Officer responsible for decontamination and decommissioning, and remediation of a 600 acre site that was used to develop, test, and manufacture uranium fuel.

> Vertechs Corporation (11/89 - 10/94) - Senior Technical Specialist responsible for business development and operation, and providing radiological engineering, management appraisal, and quality assurance consulting services for clients. Participated on DOE Tiger Teams and Audits including: Nevada Test Site, Lawrence Livermore National Laboratory, Paducah Gaseous Diffusion Plant, Argonne National Laboratory, Sandia National Laboratory, Los Alamos National Laboratory and EG&G/EM. Was a specialist in the following areas for these Tiger Teams: Environmental Radiation, Occupational Health Physics,

Quality Assurance, Radioactive and Mixed Waste, and Environmental Management.

Wrote the Environmental Radiation Protection Chapter and assisted in development of other chapters for "Performance Objectives and Criteria for Conducting DOE Environmental Audits", DOE/EH-0229. Member of team that wrote the "ES&H Progress Assessment Guidance Manual" and participated as a management specialist on three DOE Progress Assessment Teams.

Developed and taught Transuranic and Low Level Waste Training Courses for LLNL; a Low Level Waste Facility design course at Rensselaer Polytechnic Institute; and a reactor core damage analysis course. Also, prepared training material and taught in the following areas: auditing and performance based assessment, radiation protection, and emergency planning. Designed and performed radiological engineering for two low-level radioactive waste storage facilities. Performed on-site and off-site dose calculations in support of Safety Analysis Reports and unreviewed safety questions. Performed analysis of unreviewed safety questions and critical reviews of safety analysis reports. Performed appraisals of operational health physics programs. Developed operational health physics programs to implement the new requirements of 10 CFR 20.

Member of DOE HQ Office of Health team reviewing radiological engineering practices within the DOE complex. Performed detailed reviews of radiological engineering at LANL, SRS, Oak Ridge and INEL. Prepared a report and good practice documents based on these reviews, including a training course.

> Cygna Energy Services (3/87 - 11/89) - Division manager with profit/loss responsibility for business development and operation of a division containing over 20 professionals. Also responsible for directing and/or performing projects and programs in the areas of Health Physics, Rad Waste, Computer Services, Quality Assurance, and Emergency Planning for Radiological and Hazardous Materials. Major specific projects included:

- Prepared material and taught in the following areas: quality assurance training, radiation protection, emergency planning, and environmental monitoring.
- Performed numerous audits and appraisals of radiological programs, emergency plans and third party vendors, including participation on Department Of Energy Tiger Teams.
- Performed a complete analysis to support increasing the allowable primary containment leak rate at a commercial nuclear reactor, which included a complete analysis of 10 CFR 100 doses, environmental qualification doses and control room doses.
- Wrote emergency plan scenarios, including graded exercises, ingestion pathways, and branching scenarios. Also, was a controller/evaluator for numerous emergency plan drills.

o Wrote a report for the Monitored Retrievable Storage Commission which evaluated worker and population doses from various spent fuel monitored retrievable storage options.

Utility:

> New York Power Authority (6/79 - 3/87) - Develop, coordinate, evaluate, and review programs and policies to support operations of two nuclear power plants. Progressive career development from Staff Engineer to Senior Specialist as highlighted below:

o Senior Radiological Appraisal Specialist (3/86 - 3/87) - Responsible for development and operation of the newly formed Operational Appraisal Division, in the area of Radiation Protection. Performed numerous management and technical appraisals in all areas of nuclear radiation protection. Program appraisal areas were designated by the Plant Managers, Officers of the company, and routine scheduling. Each appraisal consisted of: establishing appropriate standards of performance and reviewing the programs against them; evaluate staffing and budgetary needs; evaluating the adequacy of equipment including maintenance and calibration methods; writing a report of results, observations and methods for improvement.

o Supervisory Radiological Engineer (6/82 - 3/86) - Responsible for supervising a group of engineers to develop and implement all aspects of the corporate radiation protection program for two operating nuclear power plants. Also responsible for the preparation and expenditure of the group's operating budget (approximately $2 million per year) and the group's capital budget. Major capital Project management responsibilities were:

- Interim Waste Storage Facilities for two plants.
- Automated Steam Generator Manway Removal System.
- Design and construction of an Emergency Operations Facility and a Radiological Environmental Analysis Laboratory.

o Radiological Engineer(6/79 - 6/82) - Responsible for development and implementation of environmental, radiological monitoring, radiation protection and effluent monitoring programs, on an ongoing basis, for two nuclear power plants. Coordinated the evaluation of analytical hardware and systems to meet plant needs in these areas and prepared recommendations for improving these programs.

Responsible for technical project management throughout their life, including cost and scheduling considerations. Participated in the coordination and development of site, county and State emergency plans. Developed scenarios and associated data for Emergency Plan exercises. Set up and ran computer codes to perform engineering analysis in the areas of shielding, radiological assessment, population dose, and probabilistic risk assessment and evaluations.

> Consolidated Edison Company of New York Inc (6/78 - 6/79) -

Nuclear Environmental Monitoring Engineer responsible for operation of the nuclear environmental monitoring program at the company's Indian Point No. 2 nuclear plant. This included overseeing the actual field performance of the program by the supervisor and technicians stationed onsite. Other responsibilities included: data analysis, the preparation of radiological monitoring reports, calculation of population doses, and evaluation of a thermoluminescent dosimetry system for use in measuring low-level background radiation.

Government:

> General Dynamics, Electric Boat Division (6/75 - 6/78) - Radiation Control Engineer with overall responsibility for operation of the environmental radiation monitoring programs at the Division, which included shipyard air monitoring, and environmental background radiation monitoring. Other responsibilities and duties included: develop emergency planning dose assessment techniques and portable sampling/analysis equipment for airborne radioiodines; provide engineering support for development of personnel dosimetry programs; aid in the development of emergency plans; and recommend solutions to Health Physics problems involving the overhaul of Naval Nuclear Reactors.

Computer Applications: Planning, Design, and Development

Expertise in engineering and business applications for mainframe/mini/personal computers, including:

> Development of RRMS (Radiation Records Management System) to establish a database for personnel information, dose records (TLD and dosimeter), radiation work permits, and radiation area access control. The database operates in a real-time multi-user environment and provides control over access to radiation areas using turnstiles.

> Development of AIMS (ALARA Information Management System) to establish a database system to perform ALARA reviews, track man-rem (by job, task, trade, etc), and to generate reports.

> Development of ELMS (Environmental Laboratory Tracking System) to establish a surveillance schedule, analytical instrument interface, and database tracking system for environmental samples, including report preparation.

> Developed CDEP (Core Damage Estimation Procedure) to assess fuel damage to a nuclear reactor core under accident conditions.

> Development of RETDAS (Radiological Effluent Tracking and Dose Assessment System) to establish an effluent database and implement all calculational requirements of Radiological Effluent Technical Specifications.

> Project Manager for the design and implementation of MRAS (Meteorological and Radiological Assessment System) to perform offsite dose assessments, and to log and process data from a wide variety of plant monitoring instrumentation and three meteorological monitoring towers.

> Development and use of Fortran IV, Fortran 77, BASIC and C programs on CDC 6600/7600 and IBM 360/370 main frames, and on microcomputers under DOS. Evaluation and/or development of database applications under numerous systems including FoxBase, dBase, Informix and Oracle.

David J. Watters
[redacted] Exemption 6

Education
University of Massachusetts-Lowell, MA
B.S., Radiological Health Physics [redacted] Exemption 6
M.S., Radiological Sciences and Protection [redacted]

Honors
1993 INPO Fellowship
Listing in EPA Radon Measurement Proficiency Program

Experience

ABB Combustion Engineering Power Plant Support, Windsor, CT

June 94 - Present **Radiological Engineer**

Responsible for providing radiological engineering support and developing cost effective solutions related to the departments operational, environmental, and decontamination and decommissioning health physics programs. Also, was responsible for development and implementation of dosimetry and instrumentation program. Specific responsibilities include the following:

- Development and implementation of procedures for laboratory and field instruments, including a quality assurance and quality control program
- Development of cost estimates for radiological and environmental safety programs/jobs, including evaluating sub-contractor estimates
- Collection and shipment of samples, establishing analytical requirements, reviewing analytical results of environmental and decommissioning samples, and reviewing vendor lab QA programs
- Direct supervision of a staff of five health physics Technicians on analytical techniques using laboratory and field instrumentation
- Assisting staff Health Physicists in developing and implementing a program to evaluate and decontaminate sewage lines which contained uranium
- Preparation of annual 40 CFR 61 Subpart H "National Emissions Standards for Hazardous Air Pollutants" (NESHAPS) report for several buildings, including determination of source terms and using NRC computer program "COMPLY" to perform pathway analysis

University of Massachusetts-Lowell, Lowell, MA

8/92 to 6/94 **Laboratory Coordinator for the Radon Detection Program**

Developed a radon detection system that utilized activated charcoal samplers

and a NaI(Tl) gamma spectroscopy system. Programmed IBM PC to control Canberra 2404 ZnS(Ag) alpha detector for automatic charcoal sample counting and statistical analysis. Designed and implemented radon in water analysis program using a liquid scintillator. Designed a quality assurance program to ensure accurate radon concentration calculations and compliance with EPA standards. Trained and supervised three laboratory assistants to perform radon collection and analysis.

9/93 to 6/94

Teaching Assistant

Worked with professors as a teaching assistant for two graduate-courses, Radiation Safety and Control and Nuclear Instrumentation. Responsibilities included assisting students, grading homework, and preparing laboratory handouts and equipment for use in classes.

6/92 to 12/92

Assistant to Radiation Safety Officer

Assisted the university RSO as an Intern. Responsibilities included performing radiological surveys of the reactor and accelerator and analyzing waste for subsequent disposal using gamma spectroscopy. Also, responsible for calibrating field survey instruments, dosimeters, gas flow proportional counters, and liquid scintillation counters.

Computer Skills

Basic, C, Fortran, Pascal, Quattro Pro, Word Perfect 5.2/6.0, Microsoft Office (Excel, Word, and Power Point), Mathematica, and Math Cad

Associations

American Nuclear Society
Health Physics Society - National and regional chapter