



# SHIELDALLOY METALLURGICAL CORPORATION

35 S. W. Boulevard  
P. O. Box 768  
Newfield, NJ 08344 U.S.A.

Telephone: 856-697-6501  
FAX: 856-697-6515

September 26, 2011

Paul Michalak, Branch Chief  
Materials Decommissioning Branch  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Re: Application to Amend License No. No. SMB-743**

Dear Mr. Michalak:

Shieldalloy Metallurgical Corporation (SMC) wishes to amend License No. SMB-743 to reflect a change in our radiation safety organization. As you know, Mr. David Smith, who currently serves as the RSO, has been a consultant to SMC and provides compliance services on an as-needed basis. Mr. Smith will remain a consultant but he has accepted full-time employment elsewhere, meaning his availability on demand is limited. In his place, we have appointed Ms. Jennifer Gutierrez, also a consultant to SMC, to serve as interim RSO until such time as her appointment has been approved via amendment of License No. SMB-743.

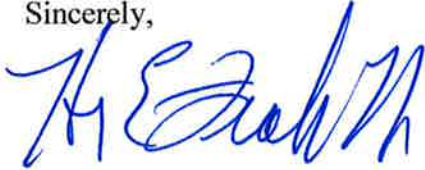
Enclosure 1 contains a summary of Ms. Gutierrez's qualifications demonstrating that she is a qualified radiation protection professional with a solid understanding of regulatory compliance. She can be reached at (240) 631-8993 and [jlgutierrez@iem-inc.com](mailto:jlgutierrez@iem-inc.com). Because Ms. Gutierrez is not located at SMC's Newfield facility, the on-site contact will be Mr. George Paladino, who has been qualified as an Authorized User by SMC. Mr. Paladino can be reached at (856) 697-6536 and [gpaladino@shieldalloy.com](mailto:gpaladino@shieldalloy.com).

Ms. Gutierrez will also be assisted on an as-needed basis by Carol D. Berger, a Certified Health Physicist who has been an active participant in the development and implementation of the SMC radiation protection program since 1991. Enclosure 2 contains a summary of Ms. Berger's qualifications. In addition, Mr. Richard Caldwell, RSO at SMC's sister company, AMG Vanadium, Inc. based in Ohio will be available to support any activities as required. He can be contacted at (740) 435-4665 and [rcaldwell@amg-v.com](mailto:rcaldwell@amg-v.com). I will continue to serve as the Senior Corporate Individual with the authority to dedicate corporate resources for radiation safety purposes. The remainder of our radiation safety organization is unchanged.

Paul Michalak, Branch Chief Materials Decommissioning Branch  
U. S. Nuclear Regulatory Commission  
September 26, 2011  
Page 2

If you have any questions about this notification, please do not hesitate to call me at (856) 692-4200. Thank you very much and I look forward to timely receipt of our amended license.

Sincerely,



Hoy E. Frakes, Jr.  
President

Enclosures:

- 1 – Qualifications of Jennifer L. Gutierrez
- 2 – Qualifications of Carol D. Berger

cc: David Smith - Shieldalloy Metallurgical Corporation  
George Paladino - Shieldalloy Metallurgical Corporation  
David White - Shieldalloy Metallurgical Corporation  
Pam Bradway – Shieldalloy Metallurgical Corporation  
Richard Caldwell – AMG Vanadium, Inc.  
Carol D. Berger - Integrated Environmental Management, Inc.  
John J. Hayes - USNRC (FSME/DWMEP/DURLD)  
Robert Johnson - USNRC (FSME/DWMEP/DURLD)  
Mark Roberts - USNRC Region I (DNMS/DB)

**ENCLOSURE 1**  
**Qualifications of Jennifer L. Gutierrez**

**Professional Qualifications**

Ms. Gutierrez has a broad knowledge and skill set in the area of applied health physics, radiation protection and project management. She has a proven track record of directing work groups on proper radiological procedures and practices, a solid understanding of regulatory and license requirements, and project team coordination. Jennifer has provided lead technician coverage during spent fuel replacement, interpreted and verified field data accumulated from surveys and monitoring activities, developed reports for MARSSIM and final status survey purposes, coordinated the shipping and receiving of approved Radioactive Material Storage Bins, conducted field and laboratory sampling/surveys in accordance with 10 CFR 835 and 10 CFR 20, participated in regulatory and operational policy/procedure development, and reviewed permit applications and amendment requests for licenses and work authorizations.

**Qualifications**

1997-2001 Hampton University, Hampton VA (Aviation Management)

NAVSEA 108.1-qualified Radiological Control Technician

ANSI 3.1 Nuclear Energy Institute Senior Radiation Protection Technician

ANSI N18.1 Radiation Protection Professional

DOD Secret Security Clearance (inactive)

DOT Category III Mixed Waste Generator

DOT Hazardous Materials Transporter (current)

OSHA 40 Hour HAZWOPER (plus physical and current 8-hour refresher)

CPR and First Aid Training (current)

**Experience and Background**

2011 to Present - Health Physics Technician, Integrated Environmental Management, Inc. (Gaithersburg, MD) - Duties include surveillance activities, instrumentation usage/control, training, project support, emergency response and applied health physics. Ms. Gutierrez has been qualified as a Health Physics Technician pursuant to Radiation Safety Procedure No. RSP-006, "Training and Qualification of Radiation Protection Personnel" and as an Authorized User pursuant to License No. MD-31-281-01.

2009 to 2011 - Senior Health Physics Technician, Bartlett Nuclear Inc. /Calvert Cliffs Nuclear Power Plant (Lusby, Maryland) - Provides radiation protection services to many of the active nuclear power plants and Department of Energy (DOE) facilities in the USA. Also provides services to many decontamination and decommission facilities. Work included lead technician coverage for the replacement of the Spent Fuel Handling Machine, disseminating up to the minute conditions as the environment or job scope changed, coordinating with all project managers and supervisors constantly to reformat goals and enforcing criteria of the NRC and the local procedures per the site.

2008 to 2009 - Senior Health Physics Technician/Data Analyst, New World Environmental (San Francisco, CA) - Lead the coordination of a team of field radiation protection technicians and labor staff to conduct yard operations; accepted a role as a team leader to help facilitate the legitimacy and accuracy of the data collected; interpreted and verified field data accumulated from surveys and monitoring activities using standards set by the project and prepared reports for the site through the site wide database; developed reports for MARSSIM and final status survey documentation; coordinated the shipping and receiving of approved Radioactive Material Storage Bins and documented all of the shipping activities; conducted field and laboratory sampling surveys in accordance with 10 CFR 835 and 10 CFR 20; performed dose and shielding assessments per EPA standards for environmental remediation; assisted site characterization and excavation of contaminated soil; and performed Gamma Walkover surveys.

2008 - Senior Health Physics Technician, Bartlett Nuclear Inc. (Plymouth, MA) - Successfully performed as the lead radiological control technician for the Spent Fuel Handling Machine replacement project; participated as an integral part of the process to develop regulatory policies via lessons learned and ensured the integration of corrective actions into field work practices; reviewed Permit applications for new authorizations as well as amendment requests for existing authorizations; provided dedicated radiological coverage as a lead technician for significant steam generator repair and inspection; assisted with gradient survey calculations; and conducted radiological site scanning, decontamination, and segregation of radioactive material.

2006 to 2008 - Senior Health Physics Technician, Catawba Nuclear Power Plant (South Hill, South Carolina) - Conducted technical review and evaluation of licenses for possession and use of radioactive sources in support of radiography; provided dedicated radiological surveillance during spent fuel pool operations; collected air, soil, and water samples and calculated for content in order to maintain safe working limits; disposed of sample residual analytical waste per procedure; performed radioactive contaminant surveys for airborne contaminants and particulates; responsible for radioactive package receipt, retention, and processing; and responsible for interpreting the US NRC regulations that govern the possession and use of radioactive materials.

2006 - Senior Health Physics Technician, McGuire Nuclear Power Plant (Huntersville, North Carolina) - Principle Senior Health Physics Technician for refueling floor operations; covered highly radioactive and highly contaminated work associated with

the inspection and repair of the Nuclear Reactor; assembled and lead a team of decon technicians to conduct Reactor Cavity decontamination without an personnel being contaminated; oversaw work operations surrounding the Nuclear Reactor via remote camera and audio capabilities; and supported Eddy Current and Refueling operations.

2006 - Senior Health Physics Technician, Surry Nuclear Power Plant (Surry, Virginia)  
- Operated air sampling equipment, dose rate meters, contamination detectors; briefed work crew prior to entering High Radiation and Locked High radiation environments; provided coverage for valve removal and inspection; provided coverage for all Balance of plant operations; conducted briefings for radiological workers prior to them starting work or entering the environment; and provided coverage for the shipping and receiving of radioactive waste.

2006 - Senior Health Physics Technician, Beaver Valley Power Station (Shippingport, Pennsylvania) - Conducted formal pre job briefing to workers before performing highly radioactive work in and around the Nuclear Reactor and the Reactor Vessel; provided job coverage during the replacement of the Nuclear Reactor Head and three Steam Generators; provided coverage during the cutting of hot and cold legs on the steam generators; provided job coverage on the refueling floor during refueling operations; provided coverage on the platforms during Steam Generator removal; documented post radiation and contamination surveys after the removal of the Reactor head and the Steam Generators; and provided coverage during Tripod removal.

2001 to 2006 - Senior Health Physics Technician and Radiological Control Monitor at a variety of commercial nuclear power facilities, including Northrop Grumman Newport News, Virginia - Attended RCTQS and earned the Navy 108.1 Designation; successfully participated in periodic drills, oral boards, and testing to maintain qualifications; learned and utilized Geiger-Mueller detectors, Gamma Spectroscopy, and Liquid Scintillation instrumentation; provided coverage for all operations in the Spent Fuel Pool; provided radiological monitoring for refueling and overhaul operations; assisted in the development of procedures and work practices for the control and movement of radioactive material as a DOD field representative; utilized familiarity with 10 CFR 19, 10 CFR 20, 10 CFR 21, 10 CFR 49, and NAVSEA Article 108.1 to ensure safe operations and regulatory requirements; reviewed documents required by license for possession and transport of radioactive material for completeness and accuracy; and enforced Navy, NRC, and Northrop Grumman radiological control work practices to prevent and minimize personnel radiation exposure during refueling and overhaul operations.

**ENCLOSURE 2**  
**Qualifications of Carol D. Berger**

**Professional Qualifications**

Ms. Berger has over 34 years experience in nuclear and radiological activities with emphasis in strategic planning, radiation dosimetry, instrumentation, and applied health physics. As a co-founder of Integrated Environmental Management, Inc. (IEM), Ms. Berger is actively involved in performance of radiological dose assessments, regulatory interactions, site decommissioning, program evaluations, program development, pathway analyses, risk assessments, dosimetry evaluations, assessment and control of sources of non-ionizing radiations, waste management programs, environmental monitoring programs, and detection and quantification of low-levels of radioactivity.

**Education**

M.S., Health Physics, San Diego State University, San Diego, California; 1979

M.S., Radiation Physics, San Diego State University, San Diego, California; 1977

B.S., Physics/Chemistry, San Diego State University, San Diego, California; 1972

**Certifications**

Certified Health Physicist (Comprehensive), American Board of Health Physics, 1983 (Re-certified through 2011)

Alternate Radiation Safety Officer - Maryland Department of the Environment  
Radioactive Materials License No. MD-31-281-01.

Authorized User - Maryland Department of the Environment Radioactive Materials  
License No. MD-31-281-01.

Radiation Health Physicist Registration - Cabinet for Health Services, Commonwealth of Kentucky, Certificate No. 3013.

Maryland Department of the Environment - Service Registration No. 358-000.

U. S. Department of Energy "Q" Security Clearance (expired).

**Experience and Background**

1994-Present    President and Founder, Integrated Environmental Management, Inc., Gaithersburg, Maryland. Provides high-quality strategic environmental management services to commercial and government clients. As a member of the client's response team, works with clients to promote an understanding of what is required to achieve and/or maintain compliance in the eyes of all pertinent regulatory agencies, individually or jointly; develop an overall strategy for achieving compliance and reduce liabilities in a technically-sound, legally-defensible, and fiscally-conservative business manner; recommend specific

solutions that are compatible with the client's operating philosophy; and provide insights into future regulatory issues and their impact as input to the client's long-range business planning and cost forecasting process.

- 1989-1994 Senior Technical Consultant, IT Corporation/Nuclear Sciences, Washington, D.C. - Performed health physics consulting for government and commercial facilities in Internal and External Dosimetry; Radiation Monitoring; Environmental Monitoring; Instrumentation; Emergency Response and Preparedness; Site Decommissioning; Radioactive Waste Management; Radiation Risk Assessment; Training; Licensing and Regulatory Negotiations; and Non-ionizing Radiation
- 1986-1989 Senior Health Physicist, IT Radiological Sciences Laboratory, Knoxville, Tennessee - Performed health physics consulting for government and commercial facilities in Internal and External Dosimetry; Radiation Monitoring; Environmental Monitoring; Applied Health Physics; Instrumentation; Radioactive Waste Management; Training; and Non-ionizing Radiation.
- 1983-1986 Radiation Dosimetry Group Leader, Oak Ridge National Laboratory, Oak Ridge, Tennessee. Responsible for internal and external dose assessment and programs for ORNL employees, visitors and contractors. Experience included Internal and External Dose Assessment; Monitoring Program Design and Implementation; Instrumentation Development; Site Characterizations; Personnel Management; and Training.
- 1978-1983 Internal Dose Group Leader, Oak Ridge National Laboratory, Oak Ridge, Tennessee. Responsible for development of the ORNL Whole Body Counter Facility for detection and quantification of the actinides in-vivo. Experience included: Internal Dose Assessment; Monitoring Program Design and Implementation; Instrumentation Development; Special Studies; Personnel Management; and Training.
- 1978-1986 Adjunct Faculty, Oak Ridge Associated Universities, Oak Ridge, Tennessee - Professional training courses and general classes in the following health physics and radiation protection areas: Internal Dose Assessment; In-vivo Monitoring and Bioassay Methodologies; Instrumentation, and Applied Health Physics.
- 1979-1980 Health Physics and Dosimetry Task Group Member, President's Commission on the Accident at Three Mile Island, Washington, D.C. Tasks included: Internal Dose Assessment from Whole Body Counting Results; Estimates of Source Term from in-plant Monitoring Systems; Atmospheric Dispersion Modeling and Population Dose Assessment; and Development of Health Physics Sequence of Events.

### **Professional Society Membership**

American Academy of Health Physics (President, 1995; Executive Committee, 1995-1997;  
Chair of Strategic Planning Committee, 1997; Chair of Professional Standards and  
Ethics  
Committee, 2003-2006)

National Council on Radiation Protection and Measurements (Program Area  
Committee 2  
on Operational Radiation Safety, which serves as a national resource for information  
on operational radiation safety and formulates guidance regarding the application of  
operational radiation safety principles, 2008-2011)

Health Physics Society (Fellow Member, 2006; Publications Committee, 1999-2001)

Baltimore-Washington Chapter, Health Physics Society (Treasurer, 1993-1994, Board  
of  
Directors, 1998-2000)

### **Publications**

Over 30 professional publications; over 40 oral presentations; over 100 technical  
reports; over 25 training courses taught.

### **Other/Past Appointments/Awards**

American Academy of Health Physics - Third recipient of the Joyce B. Davis Memorial  
Award for professional achievement and ethical behavior in the practice of health  
physics (July, 2006, Providence, Rhode Island).

East Tennessee Chapter - Health Physics Society (President, 1986; President-Elect,  
1985; Secretary, 1981-1982).

San Diego Chapter - Health Physics Society (Charter member).

American Board of Health Physics, Comprehensive Panel of Examiners (1989-1993).

ANSI Standards Committee (ANSI N13.41) on Multiple Dosimetry; Chair of  
Reaffirmation Working Group (2007 to present).

ANSI Standards Committee (ANSI N13.41) on Multiple Badging; 1986 to 1996  
(Chairman, PlanCo-59 Working Group, 1990 to 1996).

ANSI Standards Committee (ANSI N13.39) on Internal Dosimetry Programs (1994 to  
2001).

ASTM Task Group E-10.04.27 "Transuranic Wound Analysis" (1986 to 2000).

National Council on Radiation Protection and Measurements (NCRP) Scientific Committee 46-10, "Assessment of Occupational Exposures from Internal Emitters" (1989-1995).

Purdue University, Health Sciences Advisory Council for the School of Health Sciences (1995-1998).

DOE/IAEA Whole Body Counter Intercalibration Committee (1980-1986).  
Consultant to Knoxville Academy of Medicine, Mass Casualty Simulation (1984-1985).

Consultant to the National Cancer Institute to Evaluate Devices and Techniques to Determine Previous Radiation Exposure under Public Law 98-54 (Award for participation presented by Oak Ridge Associated Universities in April, 1988.).

Steering Committee Member, U. S. Department of Energy Task Group on the Education of Future Health Physicists (1989-1991).

Technical reviewer and referee for Health Physics, Nuclear Technology, and Radiation Protection Management.

IT Corporation Distinguished Technical Associate - June, 1992.