

LILCO, February 13, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
LONG ISLAND LIGHTING COMPANY)	Docket No. 50-322-OL-3
)	(Emergency Planning
(Shoreham Nuclear Power Station,)	Proceeding)
Unit 1))	

AFFIDAVIT OF JOHN A. WEISMANTLE IN SUPPORT OF LILCO'S
MOTION FOR SUMMARY DISPOSITION OF CONTENTIONS 24.B
(LETTERS OF AGREEMENT WITH THE DEPARTMENT OF
ENERGY AND THE RADIATION HEALTH COORDINATOR)

John A. Weismantle, duly sworn, deposes and says as follows:

My name is John A. Weismantle. I am employed by the Long Island Lighting Company as Manager of the Local Emergency Response Implementing Organization (LERIO). As such I have responsibility for the offsite emergency plan for the Shoreham Station, known as the LILCO Transition Plan, and its implementing procedures, for updating the Plan and Procedures periodically, and for keeping them accurate and up-to-date. The following statements are true:

1. Attachment 1 to this affidavit is a copy of LILCO's Letter of Agreement with the Department of Energy for performance of services required as part of the offsite response to an emergency at Shoreham.

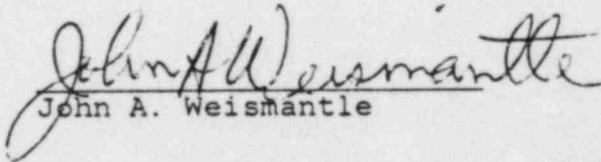
2. The Letter of Agreement with the Department of Energy that is attached to this affidavit is included in Appendix B of the LILCO Transition Plan.

3. The Letter of Agreement with the Department of Energy, Brookhaven Area Office provides that DOE-RAP will provide radiological assistance in an emergency.

4. Attachment 2 to this affidavit is a copy of Impell Corporation's proposal for the performance of services required as part of the offsite response to an emergency at Shoreham, and LILCO's purchase order accepting that proposal.

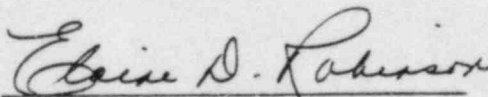
5. The agreement with Impell embodied in the documents attached to this affidavit will be included in future revisions of Appendix B of the LILCO Transition Plan.

6. The agreement with Impell provides that Impell employees will fill the LERO position of "Radiation Health Coordinator."


John A. Weismantle

Subscribed and sworn to before me this 10 day of February, 1984.

My commission expires: March 30, 1984


Notary Public

ELAINE D. ROBINSON
NOTARY PUBLIC, State of New York
No. 4624070
Qualified in Suffolk County
Term Expires March 30, 1984



Department of Energy
Brookhaven Area Office
Upton, New York 11973

August 10, 1983

Mr. Charles A. Deverio
Supervisor Emergency Planning
& Regulatory Services
Nuclear Operations Support Dept.
LILCO
175 East Old Country Road
Hicksville, NY 11801

SUBJECT: RADIOLOGICAL ASSISTANCE

Since your nuclear facility is located in Region I, the Brookhaven Area Office is charged with the responsibility for providing radiological assistance in the event of an emergency. Such assistance can be requested at all times by calling 516-282-2200 and asking for radiological assistance, indicating the nature of the incident, the location, and how to contact authorities to coordinate our response.

The Department of Energy (DOE) will respond to requests for radiological assistance from licensees, Federal, State, and local agencies, private organizations, or individuals involved in or cognizant of an incident believed to involve source, by-product, or special nuclear materials as defined by the Atomic Energy Act of 1954, as amended, or other ionizing radiation sources.

Unless the DOE or a DOE contractor is responsible for the activity, ionizing radiation source, or radioactive material involved in an incident, DOE radiological assistance will be limited to advice and emergency action essential for the control of the immediate hazards to health and safety. Radiological emergency assistance will be terminated as soon as the emergency situation is under control. Therefore, responsibility for post-incident recovery, including further action for the protection of individuals and the public health and safety, should be assumed by the appropriate responsible Federal, State or local government, or private authority as soon as the emergency conditions are stabilized.

If you have any further questions or desire further information, feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "David Schweller".

David Schweller
Area Manager

cc: L. J. Deal
L. Cohen

APP-B-1

REV. 2



cc: P. Jacobs
J. Moran
W. Kerekes
J. Diurno
D. Trout
R. Watts
G. Krieger
P. Smalley
D. Behr
S. Moss
M. Beveridge
PSD file
jft
rf

September 21, 1983
B/P No. 63-81

Long Island Lighting Company
175 East Old Country Road
Hicksville, New York 11801

Attention: Mr. Vito Elefante
Manager - Purchasing Department

Subject: Proposal - Emergency Preparedness
Staff Support

Reference: IMPELL/LILCO Meeting of September 6, 1983

Gentlemen:

Pursuant to the referenced meeting, Impell Corporation is pleased to submit a proposal to provide personnel for the position of Radiological Health Coordinator for the Local Emergency Response Organization. It is our understanding that this individual would be required to respond in the event of an accident at the Shoreham Nuclear Power Station and would, in turn, report to the Emergency Operations Center in Brentwood, New York to help coordinate Radiological Health related activities.

In order to ensure that a qualified individual is available on a 24 hour basis, Impell proposes to provide a primary and four alternates for this position. Impell would ensure that one of these individuals would be maintained in a "ready status" at all times and that they would be made available for periodic training, as well.

would be designated as the primary Radiological Health Coordinator. The four alternates for this position would be

Resumes of these individuals are attached.

Impell proposes to provide the services previously described on a time and materials basis in accordance with the terms and conditions of our Agreement for Engineering Consulting Services, ED81.LO LILCO (attached). It is recommended that a budget of be established to cover the cost of these services (emergency activation, drills, training, etc.). Please note that this budget will be used only in the event that labor or direct costs are incurred. No fee or retainer for these services will be required.

September 21, 1983
Long Island Lighting Company
B/P No. 63-81

Current hourly billing rates for these individuals are as follows:

Impell appreciates the opportunity to submit a proposal for this most important effort. Should you have any questions or comments, please do not hesitate to contact me at (516) 420-3255.

Very truly yours,

William A. Kerekes

William A. Kerekes
Section Manager
Power Services Division

Enclosures - as stated

cc: Mr. G. Moeller
Mr. C. Daverio

☐ NSA

BUDGET CHANGE REQUEST/PROPOSAL REQUISITION FORM

B/P NO. 63-81 CLIENT LILCO DATE 9/9/83

TITLE LERO - Rad/Health Coordinator

ACTIVITY

☐ BUDGET CHANGE REQUEST ON JOB NO. _____

☒ NEW PROPOSAL ☐ REVISION NO. _____ (COMPLETE REVISION SECTION BELOW)

☐ SOLD COMPLETE - JOB NO. _____

☐ SOLD PARTIAL/MARKET REMAINDER - JOB NO. _____ AMT SOLD \$ _____

☐ SOLD PARTIAL/LOST REMAINDER - JOB NO. _____ AMT SOLD \$ _____

☐ SUPERSEDED BY NEW B/P NO. _____

☐ SUPERSEDES B/P NO. _____

☐ LOST TO _____ REASON _____

☐ CANCEL REASON _____

PROBABILITY 9 START DATE 11/1/83 COMPLETE DATE 11/1/84
TYPE CODE

BUDGET

BUDGET ALLOCATION	DIVISION/ SECTION	AMOUNT
LEAD DIVISION/SECTION	<u>1671</u>	<u> </u>
	<u> </u>	<u> </u>
	<u> </u>	<u> </u>
	<u> </u>	<u> </u>
	<u> </u>	<u> </u>
	TOTAL	<u> </u>

COMPENSATION

TYPE OF COMPENSATION: ☒ SALARY MULTIPLIER ☐ FIXED RATE ☐ LUMP SUM 2.99

☒ EXISTING TERMS AND CONDITIONS

☒ EDS AGREEMENT FOR CONSULTING ENGINEERING SERVICES NO./DATED ED81.10 LILCO

☐ CLIENT CONTRACT/P.O. NO. _____

☐ STANDARD CONTRACT FORMS INCLUDED:

	SCHEDULE CODE
<input type="checkbox"/> AGREEMENT FOR CONSULTING ENGINEERING SERVICES	_____
<input type="checkbox"/> COMPENSATION SCHEDULE FOR CONSULTING ENGINEERING SERVICES	_____
<input type="checkbox"/> COMPUTER USE RATE SCHEDULE	_____
<input type="checkbox"/> EMPLOYEE SALARY RANGE SCHEDULE	_____
<input type="checkbox"/> REPRODUCTION & WORD PROCESSING RATE SCHEDULE	_____
<input type="checkbox"/> OTHER	_____

REVISION

CHANGE TYPE	FROM	TO
BUDGET		
<input type="checkbox"/> COMPENSATION		
<input type="checkbox"/>		
<input type="checkbox"/>		

ADDITIONAL INFORMATION

APPROVALS

INITIATOR
LEAD DIV. MGR

SIGNATURE

DATE _____

EDUCATION

B.S., Physics, New York Institute of Technology, 1971

M.S., Radiation Biophysics, University of Kansas, 1976

EXPERIENCE

is a Lead Senior Engineer with extensive experience in the Health Physics field. With Impell Corporation, has performed in a number of disciplines. In emergency planning, he developed a number of radiological sections to emergency plan scenarios for clients in the Northeast Region and has performed as a Controller during an NRC/FEMA Emergency Preparedness exercise. As a Health Physicist at a national laboratory, emergency responsibilities included: developing emergency radiation exposure guidelines and served as a team captain of the DOE Region I Radiological Response Team, which responded to radiological emergencies. He also assisted in the development of the laboratory's revised post-TMI Emergency Plan.

In the training area, was a member of the project staff for the development of Health Physics and Chemistry Technician lesson plans for a major PWR in the Northeast Region. He trained supervisory personnel in health physics as a part of the laboratory ALARA philosophy implementation; was Principal Health Physicist in the training of Laboratory Emergency Forces (Police and Fire Groups) in emergency response training; instructed reactor operators in fundamentals of radiation protection as part of annual retraining program, and performed general orientation programs for new employees.

was responsible for performing an ALARA review of the Waste Management activities of a Northeast Region PWR. He conducted studies on radiation worker populations for ALARA philosophy and designed and developed an on-line computerized dosimetry data base for use at a large proton synchrotron. He also developed a Radiation Protection Plan (NUREG 0761) for a 60 MW research reactor.

PAGE TWO

EXPERIENCE
(continued)

has additional experience in the measurement techniques of radioactive gaseous effluents to the environment. He designed a computerized method to produce the Semi-Annual Effluent Report for a major northeast utility. He developed environmental dosimeters and calculational models for determining off-site doses due to a TMI-type accident.

In addition, he has calculated doses to critical equipment as part of a post-LOCA equipment qualification program using QADMOD-G computer code. He has also performed shielding analysis for an Interim Onsite Storage facility and is familiar with XOQDOQ, GASPAR, and LADTAPII computer codes.

Prior to his work at a national laboratory, was employed as a Health Physics Supervisor for the Health Physics Services Section at Searle Diagnostics Inc. In this capacity, was responsible for quality assurance and the technical performance of all commercial dosimetry services. He also developed new types of personnel dosimeters, as well as mathematical protocol for exposure determinations for both film and TLD dosimetry systems.

PROFESSIONAL
AFFILIATIONS

Health Physics Society

Greater N.Y. Chapter
of Health Physics Society

American Nuclear Society

Long Island Chapter of American Nuclear Society

Sigma Pi Sigma, Honor Society of Student Physics
Society

PAGE Three

PRESENTATIONS
AND PUBLICATIONS

"Relative Determination of W-values for Alpha Particles in Tissue-Equivalent and Other Gases," Physics in Medicine and Biology, 1979, Vol. 24.

"Use of a Computerized Data Base to Implement ALARA at a Large National Accelerator." Paper presented at 25th Annual Meeting of the Health Physics Society, Seattle, Wash., 1980.

"The ALARA Program at the AGS" Paper presented at 15th Midyear meeting of the Health Physics Society, Orlando, Florida, 1982.

"Comparison of ICRP-30 and ICRP-2 Dose Factors in Determining Radiation Exposure from Liquid and Gaseous Effluents." Paper presented at 27th Annual Meeting of the Health Physics Society, Las Vegas, Nevada, 1982.

"Computerization of Semi-Annual Radioactive Effluent Reporting Requirements." Paper accepted for presentation at the Annual Meeting of the Health Physics Society, Baltimore, Maryland, 1983.

EDUCATION

B.S. in Physics - 1972
Cooper Union, New York City

M.S. in Nuclear Engineering - 1975
Pennsylvania State University
University Park, Pennsylvania

EXPERIENCE

is a Lead Senior Engineer in the Power Services Division with extensive experience and knowledge in power and research reactor reactor operations, and mechanical equipment maintenance.

is presently involved in a Control Room Design Review for a PWR. On this project has conducted Operator Interviews at the plant, prepared a detailed control room inventory listing and conducted an operating experience review.

He has also performed accident drill scenario development, Offsite Dose Calculation Manual development, and the equipment qualification of electrical components.

Prior to joining Impell Corporation, was involved for five years in reactor operations, Project Engineering, and reactor instrumentation for two operating research reactors at Brookhaven National Laboratory. His specific responsibilities included, Project Engineer for the completion of the 60 MW Conversion Project at the High Flux Beam Reactor, Reactor Operator Supervisor Trainee at the HFBR, Chairman of the Ad Hoc Safety Review Committee for the Brookhaven Medical Research Reactor - 1980, Lead Auditor for Quality Assurance Group Reactor Division, Project Engineer for the installation of the Cold Neutron Experimental Facility at the HFBR, as well as Representative to the Nuclear Power Engineering Committee of the IEEE. As Lead Auditor - Q.A., he performed full reviews of the Reactor Mechanical Maintenance Group, Reactor Water Chemistry Group, Specialty Materials & Gases Procurement for Reactor Usage, the Post Mortem of Mechanical Failure of the Major Water Storage Tank.

Prior to the above experience, was associated for four years with various A/E's as a nuclear systems engineer on assorted PWR and BWR plants.

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PROFESSIONAL
AFFILIATIONS

American Nuclear Society
Health Physics Society
Institute of Electrical & Electronic Engineers

EDUCATION

State University College of Oswego
Oswego, New York
Pursuit of Liberal Arts Degree

Westchester Community College
Yahalla, New York

EXPERIENCE

is a Lead Senior Engineer in the Radiological Services Section with extensive experience and knowledge in power reactor health physics, chemistry, and radwaste systems operations and emergency planning.

Since joining Impell Corporation, has been involved in developing onsite and corporate emergency plans and implementing procedures, preparing and conducting onsite and offsite emergency preparedness training, formulating computerized atmospheric plume dispersion models, developing radiological emergency plan drill scenarios, conducting emergency plan training exercises, instructing emergency plan drill controllers/observers and performing as the Emergency Operations Facility Controller.

Prior to the above tasks, was involved in coordinating an extensive ALARA review of as-built equipment and facilities for a nearly completed BWR, testimony support for ASLB license hearings, review and audit of a major northeast utility's environmental monitoring program, developing corporate ALARA procedures in accordance with USNRC Regulatory Guides 8.8 and 8.10, developing a state-of-the-art, task oriented chemistry and health physics Technician Training Program. This PWR training program is designed to meet NUREG 0761 and INPO guidelines. In addition, has participated in the development of an ALARA Program and associated procedures for a major pressurized water power reactor.

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EXPERIENCE
(continued)

For approximately eight (8) years prior to joining Impell Corporation, was involved in applied activities in support of three operating nuclear power plants.

As Senior Radiological and Environmental Technician at the James A. Fitzpatrick Nuclear Power Plant (JAFNPP), acted in the capacity of foreman responsible for development of health physics and chemistry procedures, supervision and performance of plant chemistry and radiochemistry analyses, development of off-site release reports, and supervision of Health Physics activities of approximately 35 technicians during plant outages. As a Radiation Protection Technician at JAFNPP, responsibilities included: health physics coverage; radwaste chemistry and support; reactor coolant chemistry and radiochemistry; solid waste shipments; and survey instrument and plant process monitoring equipment calibrations.

As a nuclear plant operator at JAFNPP, responsibilities and education included: radwaste systems startup and acceptance; radwaste operations; turbine and auxiliary systems startup and operation; nuclear operator training school; reactor reactivity manipulation and criticalities; and procedure review and acceptance.

At Nine Mile Point Nuclear Power Plant, was assigned as a Nuclear Plant Operator with responsibilities including: radwaste systems operation and processing; turbine and reactor auxiliary equipment operations; NRC Reactor Operator Licensing School; Reactor Operator Requalification School; reactor reactivity manipulation; reactor criticalities; turbine startups; plant power transitions; refueling and LPRM replacements.

PAGE THREE

EXPERIENCE
(continued)

Prior to Nine Mile Point, was assigned as a Nuclear Plant Operator at Indian Point I Nuclear Plant with responsibilities including: water treatment operation and chemistry; high pressure boiler operation and chemistry; primary and secondary plant operation; and gas turbine generator operation.

While in the U.S. Army, participated in the nuclear weapons program. His experience included reliability, accountability, security and health control.

PROFESSIONAL
AFFILIATIONS

Plenary Member, Health Physics Society

REGISTRATIONS
AND LICENSES

Registered Radiation Protection Technologist,
National Registry of Radiation Technologists

PRESENTATIONS
AND PUBLICATIONS

"An Approach to a Pre-Operational ALARA Review of a Nuclear Power Station." Paper accepted for presentation at the 28th Annual Meeting of the Health Physics Society, Baltimore, Maryland, 1983.

EDUCATION

B.S. in Physics - 1973
Albright College, Reading, Pennsylvania

Boiling Water Reactor Technology
General Electric Company - 1976

Boiling Water Reactor Radiological Engineering
General Electric Company, Pleasanton, California -
1977

Radiological Maintenance
United Nuclear Industries, Inc.
Hanford, Washington - 1978

Internal Dosimetry, Lowell University - 1981

EXPERIENCE

is the Manager of the Radiological Services Section with responsibility for enhancing the region's capabilities in all radiological areas, including Health Physics/ALARA, dose assessment, environmental monitoring, radwaste system upgrades, and low-level waste storage.

has over nine years applied experience in the Power Reactor Health Physics field, including utility and engineering consulting experience.

With Impell Corporation, has been involved in various Health Physics and Radwaste projects in the capacity of project manager, project engineer, and task leader.

Currently, is project engineer for development of an Off-Site Dose Calculation Manual for a Northeast Region PWR. For this same utility, was involved in developing atmospheric dispersion models for use in emergency planning dose assessments.

Prior to this, was involved in a Radwaste Volume Reduction evaluation. In this project, was the task leader for a radwaste systems ALARA review, which included a cost-benefit evaluation of man-rem exposures associated with radwaste operational and maintenance activities.

PAGE TWO

EXPERIENCE
(continued)

Some of [redacted] previous accomplishments with Impell Corporation include the following: [redacted] was responsible for developing and implementing a Health Physics Technician Fundamental Training Course for a major Northeast Region BWR. This program consisted of developing the training materials and conducting the course at the utility's power reactor site.

Prior to this, [redacted] was responsible for development of task-oriented Health Physics, Chemistry, Contractor, and Support Technician Training Programs for a major Northeast Region operating PWR. This state of the Art program was developed to meet NUREG-0761 and INPO guidelines, and included lesson plans, visual aids and practical factors tailored to the technician's responsibilities

In addition, with Impell Corporation, [redacted] has been involved in numerous Health Physics and Rad Waste projects including; development of an ALARA program and procedures for two separate western region PWRs, developing ALARA system field and design review guidelines for use in reviewing operating and construction stage nuclear plant system configurations and design bases, reviewing plant's radiological environmental monitoring program and providing consulting assistance with numerous shielding and dose calculation evaluations.

For approximately seven years prior to joining Impell Corporation, [redacted] was involved in professional Health Physics activities at two nuclear power plants, both operating and under construction.

As acting Health Physics Supervisor at Susquehanna Steam Electric Station (a two unit boiling water reactor under construction), [redacted] supervised 15 personnel in developing a health physics program and related procedures to meet FSAR commitments and regulatory requirements. As supervisor, [redacted] was responsible for implementing required training programs, developing equipment and manpower budgets, assisting in Emergency Plan development, and developing ALARA, respiratory protection and Dosimetry programs and procedures.

PAGE THREE

EXPERIENCE
(continued)

In addition, [redacted] had responsibility for the operating plant volume reduction program, including handling and shipping of radwaste, administrative controls, and training programs. [redacted] also served as a member of the Corporate ALARA Review Committee. As Health Physics Engineer at Susquehanna, [redacted] was primarily responsible for implementing the station ALARA and exposure evaluation programs and implementing an extensive construction stage ALARA design and field system and component review.

Prior to Susquehanna, [redacted] was employed as Assistant Engineer at Three Mile Island Unit I. In this capacity, [redacted] acted as Health Physics Foreman; supervising technicians and assisting with health physics evaluations and radwaste support activities through start-up, initial refueling, and numerous maintenance outages.

PROFESSIONAL
AFFILIATIONS

Health Physics Society
Delaware Valley Society for Radiation Safety
American Nuclear Society

AGREEMENT FOR
CONSULTING ENGINEERING SERVICES

THIS AGREEMENT, made as of the 19th day of January
1981, by and between Long Island Lighting Company
("Client"), and EDS NUCLEAR ENGINEERS INC. OF NEW YORK ("Consultant").

WITNESSETH:

WHEREAS, Client desires Consultant to perform certain professional engineering services as hereinafter described, and Consultant desires to do so for the compensation and in accordance with the terms and conditions set forth herein:

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

ARTICLE I

SERVICES TO BE PERFORMED

Consultant shall perform for Client the professional engineering services described in the attached Compensation Schedule for Consulting Engineering Services and any other addenda attached hereto during the period and in the manner described in that Schedule. Consultant shall be an independent contractor, and not an agent of Client, in performing these services and shall accordingly have sole discretion with respect to scheduling, staffing and all other matters incidental to Consultant's performance of these services. This Agreement shall not be deemed to be an agreement for the sale of goods. Any documentary report or other tangible item furnished under this Agreement will be furnished solely to communicate information relating to the professional engineering services to be performed under this Agreement.

ARTICLE II

COMPENSATION

For satisfactory performance of the services described in the attached Compensation Schedule for Consulting Engineering Services and any other addenda attached hereto, Client shall pay Consultant the compensation provided for in that Schedule. This compensation shall be billed to Client at calendar monthly intervals and shall be due and payable within 30 days following receipt thereof, subject to Client's right to contest in good faith all or any part of the charges set forth therein. Billings shall be prepared in such form and supported by such documents as Client may reasonably require.

ARTICLE III

TERMINATION

This Agreement may be terminated at any time by either party by 30 days written notice to the other party. In the event of termination by Consultant, any assignment which has been accepted by Consultant will be completed if desired by Client. In the event of termination by Client, the work shall be discontinued as provided in the termination instruction, and Client shall pay as provided herein for all work done in accordance with the termination instruction.

ARTICLE IV

NONDISCLOSURE

Provided that such information is specifically designated by Client in writing as confidential or proprietary in nature at the time of disclosure or access, Consultant agrees not to divulge to third parties, without written consent from Client, any information obtained from or through Client in connection with the performance of this Agreement unless the information is (a) in the public domain at the time of disclosure by Consultant; (b) known to Consultant prior to obtaining the same from Client; or (c) obtained by Consultant from a third party who did not receive the same, directly or indirectly, from Client under a confidentiality obligation to Client.

Client understands that special techniques in the arts and sciences, developed or accumulated by Consultant at its own time and expense, will be employed to benefit Client under this Agreement and agrees such special techniques are proprietary to Consultant and shall not be disclosed to any third party during or subsequent to the term of this Agreement without Consultant's prior written consent, unless such special techniques fall within one of the categories described in (a), (b) or (c) above.

ARTICLE V

NON-NUCLEAR INSURANCE

A. Insurance Provided by Consultant

At all times hereunder, Consultant will provide and maintain the following insurance or equivalent acceptable self-insurance:

1. workers' compensation insurance with coverage in accordance with the statutory requirements of the state where the work is to be performed;
2. employer's liability insurance with a minimum limit of \$500,000.00 for each accident or occupational disease;

3. comprehensive bodily injury liability insurance, including coverage for contractual liability, personal injury and owned, hired and non-owned automobiles, with minimum limits of \$500,000.00 per occurrence, \$500,000.00 aggregate;
4. comprehensive property damage liability insurance, including coverage for owned, hired and non-owned automobiles, with minimum limits of \$500,000.00 per occurrence and \$500,000.00 aggregate;
5. excess limits coverage in addition to the insurance provided in Paragraphs 2, 3 and 4 hereof with limits of \$4,000,000.00 each occurrence, \$4,000,000.00 aggregate combined single limits bodily injury and property damage liability.

Consultant shall, with respect to the services performed under this Agreement, furnish Client certificates of its insurance coverage for any of the foregoing risks. Consultant will cause Client to be named as an additional insured under its property damage and bodily injury liability coverage, as respects any operations of Consultant performed in conjunction with personnel of Client.

B. Insurance Provided by Client

Where services performed or to be performed hereunder are in connection with any construction activities, Client will provide and maintain "All Risk" Builders Risk Insurance or the equivalent thereof, providing protection against physical loss or damage at the site to all property and equipment located thereat with Consultant named as an additional insured. To the extent available, such insurance will be for the full limits of the project value then at risk. Any deductible will be for the account of Client.

ARTICLE VI NUCLEAR INSURANCE AND INDEMNIFICATION

Client will, without cost to Consultant:

(a) enter into an agreement of indemnification ("Government Indemnity Agreement") contemplated by Subsection 170(c) of the Atomic Energy Act of 1954, as amended ("the Act") for the benefit of Client and for the benefit of Consultant;

(b) obtain and maintain liability insurance covering on-site and off-site bodily injury and off-site property damage from the American Nuclear Insurers or the Mutual Atomic Energy Liability Underwriters, or equivalent insurance, in such amount and in such form as shall meet the financial protection requirements pursuant to Subsection 170(b) of the Act ("private insurance").

The private insurance and Government Indemnity Agreement mentioned above shall be maintained in effect (i) in the case of a construction project from the day nuclear fuel is first shipped to the project site and (ii) in the case of an existing facility, from the date Consultant begins the performance of services hereunder, and shall be continued in effect for such period as may be necessary to cover liability arising out of or resulting from the work of Consultant. If either the private insurance or Government Indemnity Agreement mentioned above are cancelled or modified so as to expose Consultant to increased risk of liability, or in the event that the nuclear liability protection by the Act is repealed, or expires, Client will, without cost to Consultant, secure such liability protection by insurance, indemnity or limitation of liability, private or governmental, so as to assure to Consultant no material impairment of its liability protection formerly available under the Act;

(c) obtain and maintain in force at no cost to Consultant property insurance in the maximum amount available in the form of a policy from the American Nuclear Insurers and/or the Mutual Atomic Energy Re-Insurance Pool, or equivalent insurance including all options for extension of coverage, covering all property at the site. Said property insurance shall be maintained in effect from the time nuclear fuel first arrives at the site until all of Consultant's obligations under, or as a consequence of, this Agreement shall have been fully discharged or terminated. To the extent available, the limit of insurance will be the completed value of the project. Any deductible will be for the amount of Client.

Upon request therefor by Consultant, Client shall provide Consultant with a copy of any such insurance policies.

ARTICLE VII LIMITATION OF LIABILITY AND HOLD HARMLESS

The total cumulative liability of Consultant, its affiliates and their respective directors, officers, employees and agents (referred to collectively as "Consultant" in this Article) to Client with respect to services performed or to be performed pursuant to this Agreement, whether in contract, indemnity, contribution, tort (including negligence, whether active, passive or any other kind), or otherwise, shall not exceed 100% of gross compensation received by Consultant under this Agreement, or \$100,000.00, whichever is less. Such liability shall be further limited in the following respects:

(a) Client waives and will require its insurers to waive all rights of recovery against Consultant for physical damage to or loss or destruction of any property at Client's plant site, whether from nuclear damage or from any other cause. Such damage, loss or destruction includes but is not limited to any loss, damage or loss of use, which in whole or in part is caused by the hazardous properties of "source material", "special nuclear material" or "by-product material", as those terms are defined in the Act, and all costs of decontamination;

(b) In no event shall Consultant be liable to Client for special, consequential or penal losses or damages (including but not limited to losses, damages or claims related to the unavailability of the nuclear power plant, shutdowns or service interruptions, loss of use, profits or revenue, inventory or use charges or cost of capital or claims or Client's customers);

(c) In no event shall Consultant be liable to Client for losses, damages, or claims which are either (1) discovered by Client more than two years from the completion of the portion of the scope of services which are involved, or (2) as to which Client fails to give notice to Consultant as hereinafter provided, within a reasonable time, not to exceed thirty (30) calendar days, from the discovery thereof.

In the event of the negligent performance of services by Consultant pursuant to this Agreement and with respect to which Client gives notice thereof within the time specified in subparagraph (c) above, Consultant will proceed expeditiously to modify or correct the professional engineering services negligently performed. The expense of doing so shall be counted toward the total cumulative liability of Consultant to Client described above.

ARTICLE VIII

SURVIVAL

The provisions of Article IV, "Nondisclosure", Article VI, "Nuclear Insurance and Indemnification" and Article VII, "Limitation of Liability and Hold Harmless" shall survive the termination or cancellation of this Agreement, or the completion of services performed hereunder, and shall apply to the full extent permitted by law.

ARTICLE IX

SEVERABILITY

If any term of this Agreement is held to be unenforceable, no other term of this Agreement shall be affected by that holding, and the remainder of the Agreement shall be interpreted as if it did not contain the unenforceable term.

ARTICLE X

NOTICES

All communications relating to the day-to-day services to be performed pursuant to the Agreement shall be delivered to the respective representatives of Client and Consultant who will be designated by the parties promptly upon commencement of the services. All other notices and communications required or permitted hereunder shall be delivered personally to the respective representatives of Client and Consultant set forth below, or shall be mailed by certified mail, postage prepaid and shall be effective upon receipt. Until changed by written notice, all such notices and communications shall be addressed as follows:

If to Client:

Long Island Lighting Company

Attention:

Title:

If to Consultant:

EDS Nuclear Engineers Inc. of New York
445 Broad Hollow Road
Melville, New York 11747

Attention: Mr. P. R. Jacobs
Title: Regional Manager

ARTICLE XI

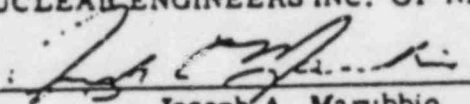
MISCELLANEOUS

This Agreement, including the Compensation Schedule for Consulting Engineering Services and any other addenda attached hereto, constitutes the entire Agreement between the parties for the services to be provided hereunder, and supersedes all prior representations and agreements, whether written or oral, between the parties as to such services. No waiver, alteration, consent or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of the party to be bound. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but which together shall constitute one and the same instrument. The failure of either party to enforce strict performance of any of the terms of this Agreement or to exercise any rights herein conferred shall not be construed as a waiver or relinquishment to any extent of its rights to assert or rely upon any such terms or rights on any future occasion.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives, as of the date hereabove first written.

EDS NUCLEAR ENGINEERS INC. OF NEW YORK ("Consultant")

By



Joseph A. Marubbio
Senior Vice President

LONG ISLAND LIGHTING COMPANY ("Client")

By

Title

PURCHASE ORDER

1-1678.19

W.O. NO. 19-44430-141	ACT. NO. 741	PROJECT NO. 265	REQUISITION OR B.N. NO. S-04908	P.O. DATE 12/6/83	PURCHASE ORDER NO. 367692
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TO 014808 IMPELL CORP 225 BROAD HOLLOW RD MELVILLE NY 11747	TERMS * <input type="checkbox"/> NET 30 DAYS <input type="checkbox"/> 2% 10 DAYS BUYER 25/CH	FILE NO. NP-83- 510 & 634
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O.B. <input type="checkbox"/> DELIVERED N.D.O.R.'S SHIPPING PROMISE	SHIP VIA <input type="checkbox"/> YOUR DELIVERY VENDOR'S QUOTE REFERENCE B/P NO. 63-81 9/21/83	ACCEPTANCE OF THIS ORDER IS SUBJECT TO THE TERMS AND CONDITIONS PRINTED ON THE REVERSE SIDE HEREOF. THE TYPED MATERIAL CONTAINED HEREIN AND ANY FURTHER INSTRUCTIONS AND MATERIALS ATTACHED HERETO.
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SHIP TO AND SEND ACKNOWLEDGEMENT AND/OR SHIPPING INFORMATION

LONG ISLAND LIGHTING COMPANY AT MARK: 367692

100 E. OLD COUNTRY RD. - HICKSVILLE NY 11801

ATTN: J. A. WEISMANTLE

DESCRIPTION	M & S CODE	QUANTITY ORDERED	PRICE
<p>THIS PURCHASE ORDER IS ISSUED TO COVER THE COSTS ASSOCIATED WITH SECURING A TECHNICAL CONSULTANT TO FUNCTION AS A RADIOLOGICAL HEALTH COORDINATOR FOR THE LOCAL EMERGENCY RESPONSE ORGANIZATION IN ACCORDANCE WITH IMPELL CORP.'S PROPOSAL 63-81 DATED 9/21/83.</p> <p>RADIOLOGICAL HEALTH COORDINATOR</p> <p>BILLING RATES:</p> <p>PRIMARY -</p> <p>ALTERNATES -</p>			

SHEET 1 OF 2

CORPORATE SECRETARY MONTHLY REPORT FORM PREPARED <input checked="" type="checkbox"/> YES (FC-8574) DATE 12/83 <input type="checkbox"/> NOT REQUIRED CONSULTANTS - ROD HEALTH COOR. D. IMPPELL CORP - EOC BPO RECORD - CATEGORY BPO EXPIRATION FOLLOW-UP DATE 9/84 DOTTY THOMSEN DEC 9 1983	EXTRA COPIES OF P.O. TO <input type="checkbox"/> CONTRACTED PROJECTS <input type="checkbox"/> INSURANCE DIV. <input type="checkbox"/> PROPERTY RECORDS <input type="checkbox"/> ADMINISTRATIVE SERV. <input type="checkbox"/> OFFICE SERVICES <input type="checkbox"/> ENGINEERING <input type="checkbox"/> TAX <input checked="" type="checkbox"/> OTHER SNPS - D.K. - T.J.H.	PURCHASE ORDER NO. 367692 DEC 9 1983 2
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LONG ISLAND LIGHTING COMPANY

175 E. OL. COUNTRY ROAD

HICKSVILLE, N. Y. 11801

PURCHASE
ORDER

DESCRIPTION

M & S CODE

QUANTITY
ORDERED

PRICE

PERIOD:

NOVEMBER 1, 1983 THROUGH NOVEMBER 1, 1984.

REPORTING LOCATION:EMERGENCY OPERATIONS CENTER
BRENTWOOD, NEW YORK

IT IS UNDERSTOOD THAT ONE OF THE ABOVE
INDIVIDUALS IS REQUIRED TO RESPOND IN
THE EVENT OF AN ACCIDENT AT THE SHOREHAM
NUCLEAR POWER STATION. ADDITIONALLY, ONE
INDIVIDUAL WILL BE AVAILABLE TO PARTICIPATE
IN PERIODIC TRAINING EXERCISES.

IMPELL WILL PROVIDE THE SERVICES AS DESCRIBED
ON THEIR PROPOSAL (63-81 9/21/83) IN ACCORD-
ANCE WITH THE TERMS AND CONDITIONS OF THE
"AGREEMENT FOR ENGINEERING CONSULTING SERVICES",
ED81,LO-LILCO.

FAILURE TO INVOICE IN ACCORDANCE WITH RATES
(AND OTHER ASSOCIATED CHARGES) AS SHOWN IN
THIS PURCHASE ORDER WILL RESULT IN DELAY OF
PAYMENT WITHOUT INCURRING ANY PENALTY CHARGES
TO LILCO.

TOTAL ESTIMATED COST OF THIS PURCHASE
ORDER IS NOT EXPECTED TO EXCEED.

CONFIRMING ORDER - DO NOT DUPLICATE

ACCTS. PAYABLE DIV.

PLEASE FORWARD ALL INVOICES TO MR. J. A.
WEISMANTLE, LERO HICKSVILLE, FOR APPROVAL
PRIOR TO PASSING FOR PAYMENT.

RECEIVING AUTHORITY - J. A. WEISMANTLE
LOCATION - HICKSVILLE

TOTAL AUTHORIZED VALUE OF THIS PURCHASE ORDER

SHEET 2 OF 2367692
PURCHASE ORDER NO