

September 4, 1985

DESIGNATED ORIGINAL

Certified By pu S. Scott

MEMORANDUM FOR: The Commissioners

FROM: William J. Dircks  
Executive Director for Operations

SUBJECT: GENERAL PHYSICS CORPORATION INSTRUCTIONAL COURSE FOR  
LICENSEES CONTAINING MATERIAL OBJECTIONABLE TO THE NRC

On August 22, 1985, NRC:HQ management learned of potentially objectionable material being taught by General Physics Corporation (GP), a contractor to General Public Utilities Corporation (GPU), in a containment leak rate course given in November 1983. A RIII inspector obtained the material from a co-worker who had attended the GP course when employed by GPU at their Oyster Creek facility.

NRC management reviewed the material and after discussions with OI and ELD contacted General Physics (Enclosure 1).

The objectionable portion of the material covered interactions with the NRC. The material appears to suggest or condone practices that could be misleading to the NRC program of inspection which relies to a large extent on licensee candor. As a result of Mr. Taylor's telephone conversations on August 23 and 24, 1985 with representatives of GP, the company responded with a letter dated August 26, 1985 (Enclosure 2) identifying 17 GPU/Oyster Creek full time participants in the offering at Oyster Creek and 8 participants from 4 utilities (names deleted by NRC) in a subsequent course held March 1 and 2, 1984. Some of the objectionable material was deleted from the subsequent course offering.

The NRC staff is continuing followup with GP regarding the extent of dissemination of this or similar materials. Also, the staff will followup with the identified utilities which had individuals taking these courses.

For information, GP conducts training, provides technical reference material and engineering services under contract to utilities. A listing of GP courses and workshops and reference material extracted from a GP newsletter (Enclosure 3) is provided for information. General Physics presently has 5 contracts with the NRC (Enclosure 4).

(Signed) William J. Dircks

William J. Dircks  
Executive Director for Operations

Enclosures: As stated

cc: SECY  
OGC  
OPE

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RHVollmer

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JMTaylor

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JMTaylor

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BGrimes

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9/3/85

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PA



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

Enclosure 1

August 26, 1985

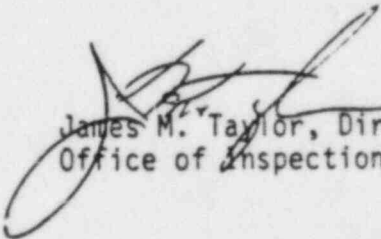
MEMORANDUM FOR: File

FROM: James M. Taylor, Director  
Office of Inspection and Enforcement

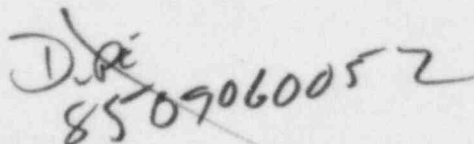
SUBJECT: GENERAL PHYSICS CORPORATION

With reference to the attached letter to General Physics Corporation, I was called at my home on Saturday, August 24, 1985 by Mr. Whitney, Vice President. Mr. Whitney told me the following:

1. The course, "Containment Systems Leakage Testing," as described in the outline of Lecture #3 had been taught only once. That had been for the Oyster Creek Station of GPU on November 29 and 30, 1983.
2. Based on a student's comments which were critical of a portion on interaction with the NRC, the course had been revised. The revised course was taught only one more time in Columbia, Md. Personnel from BG&E, HL&P, CP&L, Duquesne, Vepco, Texas Utilities, and Consumers had attended.
3. He (Mr. Whitney) will send me a copy of the revised course with further details.

  
James M. Taylor, Director  
Office of Inspection and Enforcement

cc: W. Dircks  
V. Stello  
H. Denton  
G. Cunningham  
B. Grimes  
J. Partlow  
E. Jordan  
J. Blaha  
Regional Administrators

  
8509060052



GENERAL PHYSICS CORPORATION

JAY WHITNEY  
Vice President and  
Chief Administrative Officer

Enclosure 2  
copy { JT W Dircks  
Denton Reg. Adm. Stello  
10650 HICKORY RIDGE ROAD  
COLUMBIA, MARYLAND 21044  
301-964-6000-301-982-1240  
EJ JF

August 26, 1985  
GP-L-010742

Mr. James M. Taylor  
Director, Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Taylor:

Confirming our telephone conversations on August 23 and 24, 1985, General Physics conducted its Containment Systems Leakage Testing Course twice: (1) on November 29 and 30, 1983, for GPU Nuclear Corporation and (2) on March 1 and 2, 1984, for several utilities. Copies of the course attendance lists are enclosed.

Following the initial conduct of the course in November 1983, General Physics revised Lecture #3 concerning Interactions with the NRC. Copies of the original and revised viewgraphs for this lecture are enclosed. As you can see from the revised viewgraphs, all of the viewgraphs that were questioned were revised.

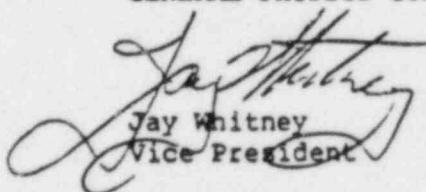
General Physics has not conducted this course since March 1984 and currently we do not offer the course. Rather, we are offering a course on Integrated Leak Rate Testing which focuses on hardware and procedure matters and does not address directly interactions with the NRC.

In reviewing this matter, I want to point out again that the viewgraphs that were questioned are only a small part of the course. When taken in context, the course specifically stresses the importance of working with the NRC in fulfilling the public health and safety responsibilities associated with containment systems leakage testing.

You can be assured of our full cooperation in resolving this matter to your satisfaction.

Sincerely,

GENERAL PHYSICS CORPORATION

  
Jay Whitney  
Vice President

JW:tl

Enclosures

~~DJR~~  
850 9060 248

GENERAL PHYSICS CORPORATION  
CONTAINMENT TESTING COURSE  
(based on 10CFR50, Appendix J)  
FOR  
GPU NUCLEAR CORPORATION  
AT  
OYSTER CREEK NUCLEAR GENERATING STATION

COMPLETION STATUS FOR COURSE ATTENDEES

FULL TIME PARTICIPANTS, TWO-DAY CTMT 1ST COURSE: 17 total (awarded 1.4 CEUs  
based on 75% or greater attendance)

Names deleted

PART TIME PARTICIPANTS: less than 75% attendance; CEUs not awarded

No part time attendees

GENERAL PHYSICS CORPORATION  
Columbia, Maryland

## CONTAINMENT TESTING COURSE ATTENDEES

March 1 &amp; 2, 1984

1. Name deleted Baltimore Gas & Electric Company  
Calvert Cliffs Nuclear Power Plant  
Routes 2 & 4  
Lusby, MD 20657
2. Name deleted Houston Lighting and Power Company  
P.O. Box 510  
Wadsworth, Texas 77414
3. Name deleted Baltimore Gas & Electric Co.  
Calvert Cliffs Nuclear Power Plant  
Route 2 & 4  
Lusby, MD 20657
4. Name deleted Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
P.O. Box 165  
New Hill, NC 27568
5. Name deleted Duquesne Light Company  
Beaver Valley Power Station - Unit 1  
P.O. Box 4  
Shippingport, PA 15077
6. Name deleted Baltimore Gas & Electric Company  
Calvert Cliffs Nuclear Power Plant  
Route 2 & 4  
Lusby, MD 20657
7. Name deleted Duquesne Light Company  
Beaver Valley Power Station - Unit 1  
P.O. Box 4  
Shippingport, PA 15077
8. Name deleted Virginia Electric Power Company  
North Anna Power Station  
P.O. Box 402  
Mineral, VA 23117

LECTURE #3

INTERACTIONS WITH THE NRC



## INTERACTIONS WITH THE NRC

### KEY PHASES

- CONSTRUCTION PERMIT - PSAR COMMITMENTS
- OPERATING LICENSE - FSAR COMMITMENTS & TECH SPECS
- PREOPERATIONAL TEST - LOTS OF ATTENTION
- COMMERCIAL OPERATIONS - UPDATES AND PERIODIC TESTS
- OPERATING LICENSE RENEWALS - UPDATES AND PLANT MODIFICATIONS

### SUBMITTALS AND UPDATES

- SARs (PSAR, FSAR) - CONTAINMENT AND SYSTEMS
- TECHNICAL SPECIFICATIONS - SUBMIT AT LEAST 6 MONTHS PRIOR TO USE (10CFR50.55a(g)(5)(ii))
- EXEMPTIONS TO 10CFR50 APPENDIX J
- RELIEF REQUESTS FOR ASME SECTION XI VALVE TESTING
- PREOP AND PERIODIC ILRT SUMMARY REPORTS (INCLUDES LLRT TESTING SUMMARY SINCE LAST ILRT)
- SECONDARY CONTAINMENT TESTING REPORT (PER TECH SPECS)
- LIAISON EVENT REPORTS (REPORTABLE OCCURRENCES)
- ASME SECTION XI REPAIR/REPLACEMENTS, AS APPLICABLE (NIS-2 FORM AVAILABLE PER W82A & LATER)

## INTERACTIONS WITH THE NRC

### INSPECTION AND ENFORCEMENT AUDITS

- PROGRAM COMMITMENTS (FSAR & TECH SPECS)
- RECORDS OF REQUIRED TESTS/INSPECTIONS
- PROCEDURES
- REPAIR AND REPLACEMENT ACTIONS
- INSTRUMENTATION/CALIBRATION PROGRAM

### ANTICIPATING NRC ACTION/RESPONSES

- LOCAL/REGIONAL (SURVEILLANCE AND ENFORCEMENT)
  - PERSONAL INTERESTS AND KNOWLEDGE AFFECT AREAS SCRUTINIZED AND EMPHASIS
  - INSPECTOR'S PREJUDICE WILL VARY ON INTERPRETATION/APPLICATION OF REQUIREMENTS
  - NRC POSITION CAN BE "GUESSED" BASED ON EXPERIENCE
    - EXPERIENCE AT OTHER PLANTS
    - PREVIOUS INSPECTIONS
  - REGIONAL PREFERENCES MUST BE CONSIDERED
- CENTRAL OFFICE - PREPARES/REVISES REGULATIONS, REG. GUIDES; ISSUES POSITIONS



## INTERACTIONS WITH THE NRC

### DAY TO DAY COMMUNICATIONS (INDUSTRY EXPERIENCES)

- SHOULD THE UTILITY INFORM THE NRC OF CONTEMPLATED PROGRAM CHANGES? THIS IS DEBATABLE.
  - ALERTING NRC OPENS UP UTILITY FOR COMMENTS AND SECOND THOUGHTS.
  - SPRINGING CHANGES ON NRC HAS BENEFIT OF SURPRISE.
  - NOTE: IT SEEMS BETTER TO KEEP NRC INFORMED ON KEY ISSUES AND TO COMMUNICATE WITH THE INSPECTOR. LOG AND DOCUMENT COMMUNICATIONS.

BENEFITS: UTILITY CAN LEARN OF NRC POSITION APRIORI. IF NO REVIEW IS PERFORMED, UTILITY CAN DEFEND ACTIONS BY SAYING "THE NRC HAD SUFFICIENT TIME TO COMMENT (BUT DID NOT) . . . THIS WAS ASSUMED TO CONSITUTE TACIT APPROVAL."

## INTERACTIONS WITH THE NRC

### DAY-TO-DAY COMMUNICATIONS (CONTD)

- INFORMING THE LOCAL INSPECTOR

- IT'S IMPORTANT TO KEEP LOCAL INSPECTOR INFORMED OF CURRENT DEVELOPMENTS
- ENCOURAGE INSPECTOR TO WITNESS A TYPE C TEST, BUT . . . DON'T BE FOOLISH:

NOTE: PERFORM DEMO ON AN "EASY" VALVE WHICH HAS  
TRADITIONALLY NOT BEEN A "PROBLEM LEAKER" ✓

- NRC WILL WANT TO CONCENTRATE ON PAST PROBLEM AREAS AND PET PEEVES

- PLANT STAFF SHOULD REVIEW ALL NRC COMMENTS/PROBLEMS WITH PAST ILRTs AND ENSURE PROPER RESOLUTION
- EXAMPLE: VALVE LINEUP (BEFORE AND AFTER TESTING; CHECK PLANT HISTORY)

## INTERACTIONS WITH THE NRC

### DAY 10 - DAY COMMUNICATIONS (CONTD)

- TRADITIONAL INDUSTRY APPROACH TO ILRT TESTING PROBLEMS HAS BEEN PREDICATED ON NOT STATING TO NRC:
  - WHEN THE TEST BEGAN (THUS ALLOWING FOR REPAIRS AFTER PRESSURIZATION COMMENCED)
  - THE "TYPE A" TEST FAILED (SINCE SOME SMOOTH TALKERS HAVE MANAGED TO GET OUT OF FAILURES)
  - WE'LL DO IT OVER (SINCE IT HAS BEEN POSSIBLE TO OBTAIN NRC AGREEMENT WITH SUCH STATEMENTS AS, "YOU SAW THE TEST BEFORE AND DIDN'T COMMENT; WHY THIS TIME WHEN WE'VE DONE IT EVEN BETTER?")

NOTE: DISCUSSION OF THE ABOVE EXPERIENCE SHOULD IN NO WAY INDICATE ENDORSEMENT OF ANY OF THESE OBSERVED APPROACHES.

## INTERACTIONS WITH THE NRC

### KEY CONSIDERATIONS IN PREPARING PROGRAM

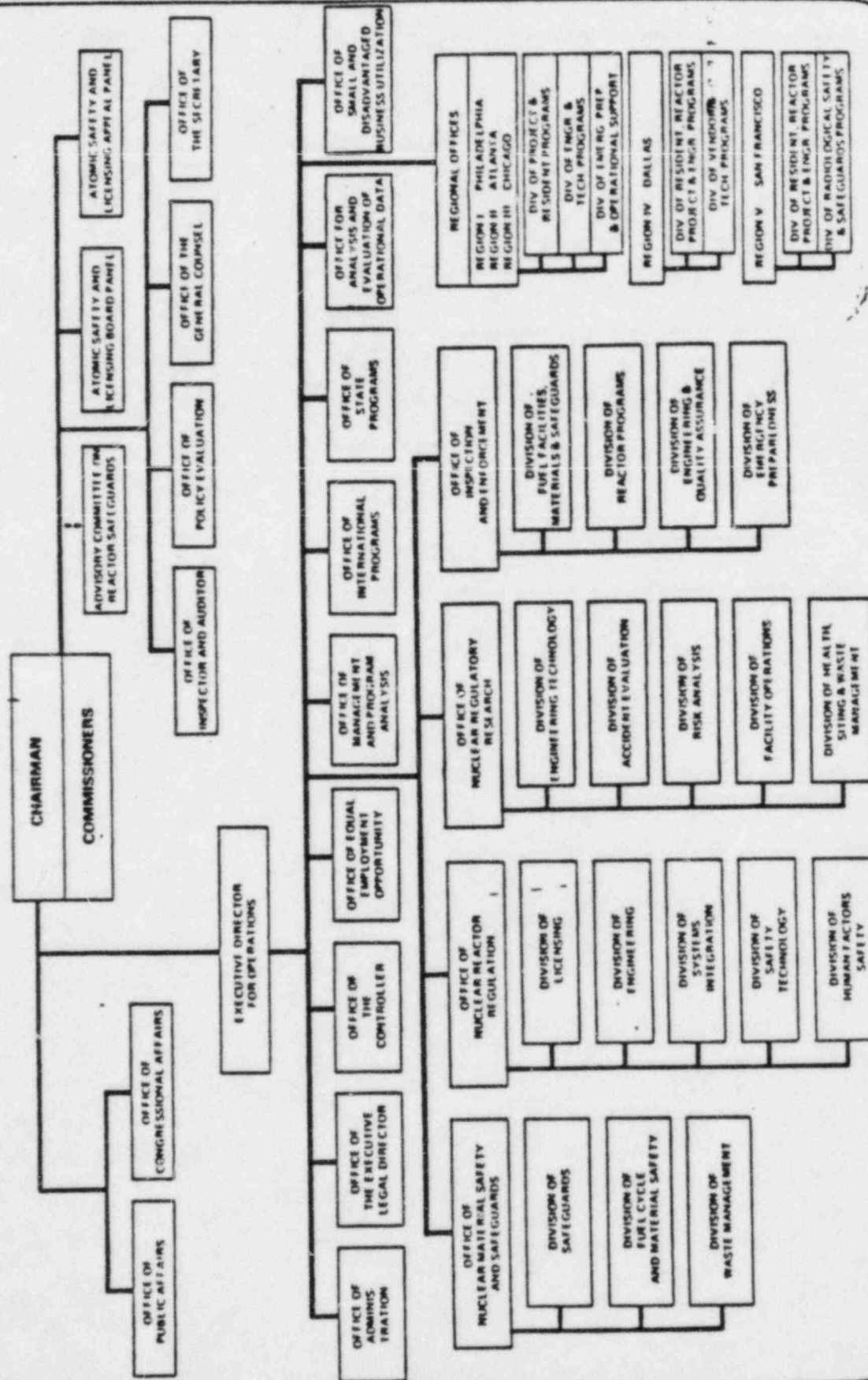
- REVIEW PLANT DESIGN FOR INSPECTABILITY/TESTABILITY
- DETERMINE AREAS OF NONCOMPLIANCE WITH REGULATIONS, CODES, STANDARDS, ETC.
- PREPARE EXEMPTION REQUESTS FOR APPENDIX J PROGRAM (TYPE A, B & C TESTS)
- PREPARE RELIEF REQUESTS FOR ASME SECTION XI, CATEGORY A VALVE TESTING
- DISCUSS MAJOR PROGRAM CONCEPTS/CHANGES WITH NRC EARLY IN DEVELOPMENT
- PERFORM DEVELOPMENTAL AND IMPLEMENTATION TASKS AS EARLY AS POSSIBLE
- REDUCE EXCEPTIONS TO TESTING - COMPLETE PLANT MODIFICATIONS

## INTERACTIONS WITH THE NRC

### SOME NRC POSITIONS

- ANSI 56.8 - 1981 VS. ANSI N45.4 - 1972
  - ANSI 56.8 IS NOT REQUIRED BY NRC FOR PLANTS BUILT TO ANSI N45.4
  - DEPENDING ON YOUR REGION, NRC STAFF MAY REQUIRE COMPLIANCE WITH PORTIONS OF ANSI 56.8
  - NOTE: NRC PLANS TO ACCEPT ANSI 56.8 BY REG. GUIDE
- BECHTEL TOPICAL REPORT BN-TOP-1
  - NRC DOES NOT LIKE SHORT DURATION TESTING BUT ...
  - -NRC HAS (AND IS EXPECTED TO) ACCEPT THE SHORTENED ILRT ON A CASE BASIS
- ILRT - ILRT SEQUENCE CONSIDERATION
  - NRC RECOGNIZES THAT ILRT FAILURE "HAS TEETH"
  - PUBLIC WILL BE PROTECTED IF INTEGRATED LEAKAGE IS "IN SPEC"
  - CONSIDERING ILRT BEFORE LLRT TO DETERMINE "AS FOUND" CONTAINMENT LEAKAGE CONDITION
  - REVISION TO 10CFR50 APPENDIX J CONTINUES

## ORGANIZATION CHART





LECTURE #3

INTERACTIONS WITH THE NRC

## INTERACTIONS WITH THE NRC

### KEY PHASES

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- NRC WILL WANT TO CONCENTRATE ON PAST PROBLEM AREAS AND PET PEEVES
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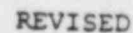
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  - NRC IS CONSIDERING ILRT BEFORE LLRT TO DETERMINE "AS FOUND" CONTAINMENT LEAKAGE CONDITION
  - REVISION TO 10CFR50 APPENDIX J CONTINUES

REVISED

## ORGANIZATION CHART



## Upcoming GP Courses and Workshops

Date	Course Title	Fee	Location
Sept. 9-13	Principles of Instructional Design: Instructor Training II	\$750	Columbia, MD
Sept. 9-20	Introduction to Microprocessors	\$1,700	Linfield, PA
Sept. 9-20	Process Measurement Fundamentals	\$1,700	Linfield, PA
Sept. 11-13	Designing Instructional Programs Using JTA Data	\$450	Columbia, MD
Sept. 16-18	Environmental Regulation for Fossil Fuel Utilities	\$450	Columbia, MD
Sept. 16-20	Nuclear Power Plant Technology for Emergency Planners	\$675	Columbia, MD
Sept. 16-20	Advanced Operator Training	\$770	Columbia, MD
Sept. 18-20	Applied Human Factors in Power Plant Design and Operations	\$650	Columbia, MD
Sept. 23-27	ASME Section XI Inservice Inspection (ISI) Programs: Development and Implementation	\$715	Columbia, MD
Sept. 23-27	PICK DATA/BASIC Programmer	\$800	Columbia, MD
Sept. 23-Oct. 4	Process Control Fundamentals	\$1,700	Linfield, PA
Sept. 23-Oct. 4	Basic Electricity	\$850	Linfield, PA
Sept. 30-Oct. 4	Health Physics Fundamentals	\$800	Columbia, MD
Sept. 30-Oct. 25	Control Room Operator Training	\$8,000	Chattanooga, TN
Sept. 30-Nov. 1	Electricity and Electronics Fundamentals Program	\$4,250	Linfield, PA
Oct. 7-8	Special Topics in Health Physics	\$300	Columbia, MD
Oct. 7-9	Measurement of Practical Skills	\$475	Columbia, MD
Oct. 7-11	Radiation Protection	\$800	Columbia, MD
Oct. 7-11	Solid-State Fundamentals	\$850	Linfield, PA
Oct. 7-18	Electronic Measurement and Control Applications	\$1,700	Linfield, PA
Oct. 8-10	Nuclear Quality Assurance Program	\$500	Chattanooga, TN
Oct. 9-11	Test Development: Evaluating Cognitive Learning	\$475	Columbia, MD
Oct. 14-18	SEEN Programmer Training	\$800	Columbia, MD
Oct. 14-18	Solid State Devices	\$850	Linfield, PA
Oct. 14-18	Fire Brigade Leadership Training	\$695	College Park, MD
Oct. 14-18	Mitigating Reactor Core Damage (BWR)	\$600	Columbia, MD
Oct. 15-16	Fundamentals of Procedure Writing	\$450	Columbia, MD
Oct. 21-25	Fundamental Instrument Electronics	\$850	Linfield, PA
Oct. 21-25	Advanced Operator Training	\$770	Linfield, PA
Oct. 21-25	Fundamentals of Classroom Instruction: Instructor Training I	\$750	Columbia, MD
Oct. 21-25	Basic Instructional Techniques: Instructor Training I/II	\$850	Columbia, MD
Oct. 21-25	PWR Indoctrination Course	\$900	Columbia, MD
Oct. 21-Nov. 1	Pneumatic Measurement and Control Applications	\$1,700	Linfield, PA
Oct. 28-Nov. 1	Nuclear Licensing	\$740	Columbia, MD
Oct. 28-Nov. 1	Digital Logic Concepts	\$850	Linfield, PA
Oct. 28-Nov. 1	Mitigating Reactor Core Damage (PWR)	\$600	Columbia, MD
Oct. 30-Nov. 1	PICK Operating System User	\$450	Columbia, MD

For publication and registration details, contact Frances McGowan, Course Registrar, at (301) 251-5555.

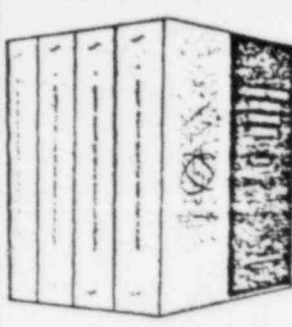
## NUCLEAR POWER



### Nuclear Power Plant Steam and Mechanical Fundamentals

Complete entry-level training for technical and nontechnical personnel, for both PWR and BWR plants. Lesson plans are also available; inquire about price.

12-vols.: \$79.50  
1080 pp., ISBN 0-87683-300-8



### Academic Program for Nuclear Power Plant Personnel

A must-have for utility personnel preparing for NRC reactor operator exams. BWR and PWR versions available. Quizzes, exams, exercise solutions, and lesson plans are also available; inquire about price.

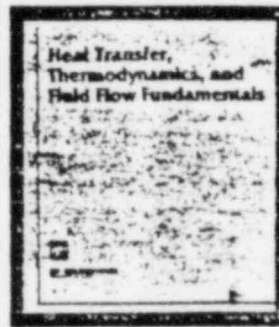
4-vols.: \$295.00  
About 1750 pp.  
BWR: ISBN 0-87683-144-7  
PWR: ISBN 0-87683-145-5



### Nuclear Power

The basics of nuclear power generation for the lay reader. Used in the public information programs of over 100 utilities. More than 200,000 copies sold.

Paperback: \$4.25  
ISBN 0-87683-299-0



### Heat Transfer, Thermodynamics, and Fluid Flow Fundamentals

For nuclear power plant operators and others interested in these engineering principles. Lesson plans, exercise solutions also available; inquire about price.

Looseleaf: \$75.00  
372 pp., ISBN 0-87683-035-1



### Introduction to PWR Nuclear Power Plants

An introduction to modern pressurized water reactors, for personnel with little or no knowledge of PWRs.

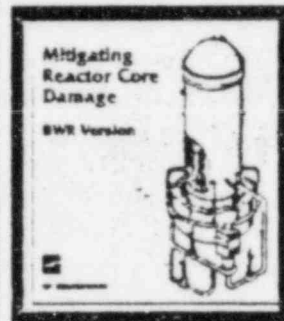
Looseleaf: \$75.00  
274 pp., ISBN 0-87683-247-8



### Introduction to BWR Nuclear Power Plants

A solid introduction to boiling water reactors for plant technicians or maintenance personnel.

Looseleaf: \$75.00  
234 pp., ISBN 0-87683-298-2



### Mitigating Reactor Core Damage — BWR

Topics required by the NRC as an outgrowth of the Three-Mile Island investigations.

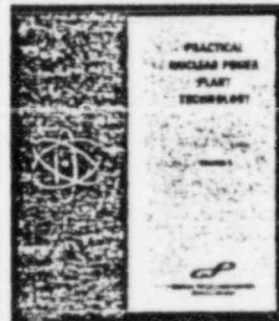
Looseleaf: \$95.00  
506 pp., ISBN 0-87683-075-0  
Lesson plans: \$1,995.00  
ISBN 0-87683-076-9



### Mitigating Reactor Core Damage — PWR

Topics required by the NRC as an outgrowth of the Three-Mile Island investigations.

Looseleaf: \$95.00  
424 pp., ISBN 0-87683-077-7  
Lesson plans: \$1,995.00  
ISBN 0-87683-078-5



### Practical Nuclear Power Plant Technology

For anyone interested in nuclear power plant design, construction, or operation.

2-vols.: \$149.50  
694 pp., ISBN 0-87683-295-8



### Reactor Theory Course

For PWR nuclear power plant personnel, covering topics from atomic and nuclear structure through PWR operating characteristics.

Lesson notes: \$69.50  
706 pp., ISBN 0-87683-248-6  
Lesson plans: \$95.00  
ISBN 0-87683-249-4



### Reactor Plant Materials

For licensed operators, shift technical advisors, and plant engineers, covering properties of materials: pressurized thermal shock, etc.

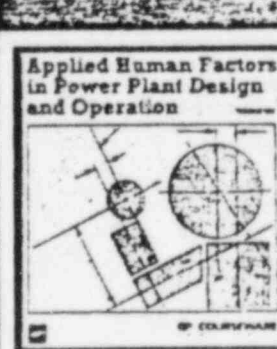
Looseleaf: \$75.00  
274 pp., ISBN 0-87683-293-1  
Lesson plans: \$595.00  
ISBN 0-87683-294-X



### Transient Response Video Training Program

A set of 4 videotapes demonstrating important response characteristics of nuclear power plants.

BWR set: \$2,495.00  
ISBN 0-87683-063-7  
PWR set: \$2,495.00  
ISBN 0-87683-069-6



### Applied Human Factors in Power Plant Design and Operation

Applying human factors engineering principles to nuclear power plant design and operation.

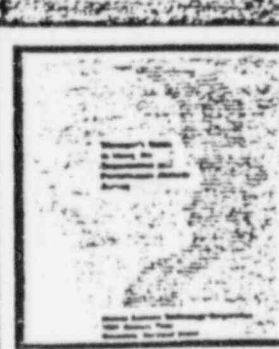
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