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

OFFICE OF
STATE PROGRAMS

10/16/79

Jack Bell SD

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PES

# MEMORANDUM ON FEDERAL AND STATE TESTING LEGISLATION

Professional Examination Service (PES) is taking this opportunity to inform its clients of significant developments in state and federal legislation in the area of standardized testing in general and licensing and credentialing examinations in particular.

In New York State and California, legislation has already been passed requiring that actual test items and correct answers be made available to candidates upon request. These two state laws pertain SPECIFICALLY to admissions tests used in post-secondary or professional school admission and DO NOT apply to licensing and certification examinations or to civil service examinations.

However, two federal bills are currently being discussed, one of which does relate SPECIFICALLY to licensing and certifying examinations. The Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and Labor of the U.S. House of Representatives (Carl D. Perkins, Democrat-Kentucky, Chairman) held hearings on July 31st and August 1st regarding these two testing bills.

Federal bill, HR4949, introduced by Representative Theodore Weiss of New York, models very closely the provisions of the California and New York testing bills and applies ONLY to standardized tests used by post-secondary educational institutions in making admissions decisions.

However, bill HR3564, introduced by Representative Sam Gibbons of Florida, is more general, and applies BOTH to tests for making admissions decisions to institutions of higher education AND to licensing and credentialing examinations used in "admitting or denying admission to an individual to any profession in or affecting interstate commerce." This legislation would apply not only to the written examinations that PES provides, but to oral, essay, practical, performance, and demonstration examinations that you might employ as additional licensing and credentialing criteria.

It would seem prudent to seek legal counsel in order to make a determination as to whether your field is involved in or affects interstate commerce. It appears that the bill does not apply in instances where certification is a purely voluntary process and is not related to an individual's employment opportunities in an occupation or ability to practice in that occupation.

The Gibbons bill would require that examinees be provided with information related to the areas of knowledge and aptitude tested by the examination, detailed descriptions of the subjects to be covered by any knowledge examinations, data concerning the measurement error or reliability of the examination, information concerning "the manner in which the test results will be distributed by the testing entity to the applicant and to other persons," and a statement of the examinee's rights to obtain test results and "related facts." The term "related facts" as used in this bill is not explicitly defined and could conceivably cover a wide range of information on statistical analyses and studies, and even test questions and answers.

The Gibbons bill also requires that examinees be given, at their request, information regarding their "specific performance in each of the subject or areas

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tested, ... (their) rank in relation to other examinees in each of these areas, the score required to pass the test," and "any further information which may be obtained by the individual on request." The wording of this last phrase is also vague, but could be interpreted to mean that agencies which sponsor these examinations may elect to provide examinees with information beyond that which is explicitly required by this bill, although the agencies are not required to do so.

The language in our current contracts reflects the spirit and intent of the Gibbons bill, if not the exact letter of the requirements; in certain cases, and under certain conditions, candidates may inspect a copy of the examination they have taken and obtain specific information about their performance. The Gibbons bill appears to go one step futher by requiring public disclosure of tests without providing procedures to protect their security.

The bill further provides that no licensing or certifying test "shall be graded (for purposes of determining the score required to pass the test) on the basis of the relative distribution of scores of other test subjects." Under this provision, standard setting procedures based on norm-referenced considerations that many of you employ will not be permitted. It appears that the author of the bill is assuming that a licensing or certification examination is a competency test, and that the determination of passing or failing should depend on the content of the items and their psychometric properties and not the performance of other individuals. However, the bill does not provide any guidelines as to the procedures that could be utilized to set standards of performance.

As might be expected, the most serious concern expressed by most witnesses at the July 31st and August 1st hearings related to the requirement to disclose test questions and answers for every administration of an examination. Increased costs, which might be a consequence of test item disclosure did not make a visible impact on committee members. However, the assertion that it would be impossible to continue testing in certain achievement areas where there is a limited number of questions that can be developed over time, DID appear to be an issue that would receive further attention. A more general consideration here is that any unnecessary delay in the licensing process that would be created by the legislation could seriously affect a candidate's employability. It is also our impression, however, that the issues raised by the Gibbons bill were far outshadowed by the very specific requirements built into the Weiss bill.

I suggest that you write to Representatives Gibbons (Room 2206, Rayburn House Office Building, Washington, DC 20515) and Weiss (Room 132, Cannon House Office Building, Washington, DC 20515) to express your views regarding the bills.

Copies of the documents can be obtained from the House Document Room, H226, The Capitol, Washington, DC 20515. You should ask specifically for bills HR3564 and HR4949 from the 1st session of the 96th Congress. The Subcommittee staff member who can be contacted for additional information is Nancy Cober (202/225-4368). Additional hearings on these bills will be held on September 10th and 24th at 9:30 a.m. in Room 2175 of the Sam Rayburn House Office Building. PES will be represented at these hearings and will keep you advised on new developments. If you have any questions concerning the summary, please contact Dr. I. Leon Smith at PES (212/870-3180).

[7590-01-M]

## NUCLEAR REGULATORY COMMISSION

[10 CFR Parts 19 and 20]

### NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS; INSPECTION STANDARDS FOR PROTECTION AGAINST RADIATION

**Proposed Rule**

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Proposed Rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing amendments to its regulations that would eliminate the accumulated dose averaging formula, 5(N-18), and the associated Form NRC-4 exposure history, and impose annual dose-limiting standards while retaining quarterly standards. Related amendments would express, in terms of the new annual standards, the standard for dose to minors, the requirements for the provision of personnel monitoring equipment, and the requirements for control of total dose to all workers including transient and moonlighting workers.

DATES: Comment period expires April 23, 1979.

ADDRESSES: Written comments should be submitted to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert E. Alexander, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 (phone 301-443-5975).

SUPPLEMENTARY INFORMATION: The Commission's basic radiation dose-limiting standards for workers are set forth in 10 CFR Part 20. The current standards for whole body exposure of adult workers are:

(1) 1.25 rems per calendar quarter, or

(2) 3 rems per calendar quarter provided that the lifetime accumulated dose does not exceed 5(N-18) rems, where N is the age of the individual in years.

These standards were based on recommendation of the National Council on Radiation Protection and Measurements (NCRP), the International Commission on Radiological Protection (ICRP), and guidance for Federal agencies issued by the former Federal Radiation Council (FRC, the function of which is now incorporated into the Environmental Protection Agency).

The present Commission action is based on assessment of the need for the 5(N-18) dose-averaging formula which allows a worker to receive up to 12 rems per year. The assessment is being performed because of the desire of the Commission to reduce the risks of occupational radiation doses in Commission-licensed activities, the Commission's continuing systematic assessment of exposure patterns, and new recommendations of the International Commission on Radiological Protection which eliminate quarterly dose-limiting standards and the use of the 5(N-18) formula for controlling the allowable cumulative lifetime dose up to age N.

The Commission, taking into account recently published interpretations of epidemiological data and associated recommendations for lower standards, and also in response to petitions for rule making to lower the dose standards filed by the Natural Resources Defense Council (NRDC) and by Dr. Rosalie Bertell, has determined that a hearing should be held on the adequacy of present occupational radiation dose-limiting standards. This hearing will be the subject of a separate FEDERAL REGISTER notice. It is tentatively scheduled to be held in the spring of 1979.

The Commission believes that the rule changes proposed in this notice have benefit from the standpoint of radiation protection for workers. For example, deletion of the formula, 5(N-18), could have reduced the radiation dose of some 320 individuals who received more than 5 rems during 1977. In addition, it could cause some licensees to take further action to reduce occupational doses. For these reasons the Commission believes that these changes should be proposed for comment at this time, without waiting for the planned hearing. Nevertheless, comments on the desirability of including these proposed rule changes within the scope of the planned hearing are specifically invited.

Specifically, the Commission is proposing to amend § 20.101(b), 10 CFR Part 20, to delete the provision that a licensee may permit an individual worker to receive up to 3 rems per calendar quarter and 12 rems per year if the accumulated lifetime radiation dose does not exceed the 5(N-18) dose-averaging formula.

The ICRP (ICRP Publication 26, "Recommendations of the International Commission on Radiological Protection," January 17, 1977, Pergamon Press) has indicated that the 5(N-18) formula should no longer be used. This formula was originally intended to be used only in special cases for which the additional dose could be justified. Data available to the Commission reveal that approximately 320 (less than 0.5%) of the individuals participating in NRC-licensed activities in 1977 received doses exceeding 5 rems and, therefore, required use of the dose-averaging formula. Elimination of the use of the formula would have little effect on the collective (man-rem) dose, but the individual risk could be reduced for approximatley 320 people (1977 data).

The Commission is also proposing to amend § 20.101 to establish annual (calendar year) standards for radiation dose. These annual standards would have the same values as would apply over four calendar quarters under the existing 1.25 rems per quarter standard. A definition of calendar year would be added to § 20.3. Quarterly dose standards would be retained, but the standard for the whole body would be changed from 1.25 to 3 rems, with no requirement for obtaining the individual's occupational dose history. Some licensees occasionally need the flexibility provided by the 3 rems per calendar quarter standard in order to accomplish essential work involving high dose rates. If this flexibility were removed, there could be a desirable effect in that new facilities and/or equipment might be designed to meet the lower dose standard. However, it is very likely that existing licensees would use extra workers in order to accomplish essential work rather than backfitting engineering controls to reduce dose rates and working times. Thus, the collective dose would not be lowered and might be increased. Informed members of the scientific community, as evidenced by ICRP recommendations, believe that, for annual doses on the order of 5 rems, there is little or no biological advantage, except for an embryo or fetus, in limiting the rate at which the dose is received. From this viewpoint, no quarterly standards are needed in 10 CFR Part 20. However, the Commission staff believes that quarterly standards with associated requirements for reporting doses that exceed those standards are necessary as precautionary measures which give early indication of possible undesirable situations and provide NRC the opportunity to investigate those situations, if necessary to ensure that they are promptly corrected and that adequate measures are taken to preclude recurrence. At the same time, the quarterly standard proposed, i.e., 3 rems per calendar quarter whole body, is considered by the Commission to be adequately low for effective regulatory control when considered in conjunction with the other standards and controls set forth in the regulations. Comments on the desirability of retaining quarterly dose-limiting standards are specifically invited.

In addition to the proposed amendments discussed above, several other sections of the regulations would be changed, primarily to accommodate the proposed annual dose-limiting standards.

1. The undesignated center heading preceding §§ 20.101 through 20.108 which now reads "Permissible Doses, Levels, and Concentrations" would be amended to read "Radiation Protection Standards Applicable to Doses, Levels and Concentrations" thus removing the word "permissible." The recommendations of the NCRP, ICRP, and FRC (EPA), as implemented in the NRC regulations, are not intended to imply that doses above the standard are unsafe and that doses below the standard are safe. Consideration of the linear hypothesis [1] indicates that some risk is associated with any dose of radiation, nowever small. In view of this hypothesis the NRC places emphasis on the concept of making all reasonable efforts to maintain radiation doses as low as is reasonable achievable. However, it is essential to establish standards which are the basis for regulating the affected industry. The Commission believes that the proposed wording more clearly reflects the intent and philosophy of these sections of the regulations.

2. On February 6, 1978, the Commission published in the FEDERAL REGISTER (43 FR 4865) proposed amendments to its regulations which would require licensees to control the total occupational dose received by their workers, rather than just the dose received from sources in their possession or control. These amendments have not yet been published as effective rule changes. Certain of the amendments in this notice would affect the same sections of the regulations that were involved in proposed amendments published Frbruary 6, 1978 (43 FR 4865). As explained below, the Commission plans to proceed with its deliberations on the changes proposed in February 1978, and, if found to be warranted, to amend these sections again after a decision is made regarding the 5(N-18) formula. The amendments proposed in February 1978 would delete the existing § 20.102(a) which contains introductory material regarding the determination of accumulated dose using the 5(N–18) formula. This introductory material would have been added to § 20.102(b). Paragraphs 20.102(b) and 20.102(c) would have remained unchanged otherwise. A new § 20.102(a) would have been added to require licensees to obtain information on the occupational dose received by an individual in the current calendar quarter from sources of radiation possessed or controlled by other persons. The amendments proposed in February 1978, if made effective, would not have affected licensees who use the 5(N-18) formula (except with respect to the use of moonlighters) because they already obtain each worker's radiation exposure history.

Elimination of the use of the 5(N-18) formula, as proposed in this present notice, would remove the need for obtaining the total occupational radiation exposure history, and would permit deletion from the regulations §§ 20.102(b) and 20.102(c).[2] The proposed provisions in § 20.102(a) published in February 1978 would be retained, but would be redesignated as § 20.102 (to delete reference to paragraph (a)), and would be changed to state the requirements in terms of both annual and quarterly standards. Comparably, the new § 19.13(e), 10 CFR Part 19, proposed in February 1978 which would require licensees to provide at termination of employment or work assignment in the licensee's restricted areas, upon request of the individual worker, estimates of the dose reveived by the individual in the licensee's restricted area during the termination quarter, would be changed to require provision of the dose data for the terminating quarter and year. The effect of the rule would be unchanged for an individual working in a licensee's restricted area for less than calendar quarter (transient).

The period provided for the submission of comments on the proposed amendments published February 6, 1978, expired on April 7, 1978. The Commission will proceed with consideration of the comments and other factors related to those amendments on their merits, and will not delay final determination of those amendments solely because of the involvement of several of the same sections of the regulations in the amendments being proposed at this time. The amendments proposed in this present action would not make substantive changes in the portions of the regulations already under consideration, but would express essentially the same standards in terms of annual standards, or percentage thereof, rather than in terms of quarterly standards.

3. Section 20.104, establishing the standards to be applicable to external doses to minors, would be amended only to express the quarterly standards in terms of a percentage of the adult annual standards. The numerical value of the dose standard would remain unchanged. The Commission does not wish to encourage the employment of minors in work involving potential for radiation dose. The standards for minors would be quarterly pro-rating of the 0.5 rem per year recommended by NCRP and ICRP for individual members of the population.

4. The requirements for the provision of personnel monitoring equipment currently specified in § 20.202, 10 CFR Part 20, apply if an individual worker is likely to receive a dose in excess of 25 percent of the quarterly standards now set forth in § 20.101(a). Because of the proposed amendments to § 20.101(a) to specify annual standards as well as a quarterly standard for the whole body that is more than one-fourth of the annual standard, and because there is no basis for relaxing personnel monitoring requirements, the requirements would be specified as percentages of the proposed annual standards and would result in numerical values equal to or slightly lower than the existing requirements. The Commission believes that the minor change would have negligible impact on the number of individuals for whom personnel monitoring is performed.

Pursuant to th Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 553 of title 5 of the United States Code, notice is hereby given that adoption of the following amendments to 10 CFR Parts 19 and 20 is contemplated. All interested persons who desire to submit written comments or suggestions for consideration in connection with the proposed amendments should send them to the Secretary of the Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch By April 23, 1979. Copies of the comments on the proposed amendments may be examined at the Commission's Public Document Room at 1717 H Street, NW., Washington, D.C.

1. In § 19.13, 10 CFR Part 19, a new paragraph (e) is added to read as follows:

§ 19.13 Notifications and reports to individuals.

* * * * *

(e) At the request of a worker who is terminating employment with the licensee in work involving radiation dose, or of a worker who, while employed by another person, is terminating assignment to work involving radiation dose in the licensee's facility, each licensee shall provide to each such worker, or to the worker's designee, at termination, a written report regarding that worker's radiation dose during each specifically identified cal-

[1] The linear hypothesis assumes that the biological effects of ionizing radiation delivered at low doses and low dose rates, can be conservatively predicted by linear extrapolation (to zero dose) of effects that have been observed following exposure at high doses an high dose rates.

[2] Deletion of the requirement for the history, if made effective, would not constitute authority to dispose of the Form NRC-4, or equivalent records that have been generated under the existing regualtions.

endar quarter of the terminating calendar year or fraction thereof, or provide an estimate of those doses if the finally determined personnel monitoring results are not available at that time. Estimated doses shall be clearly indicated as such.

2. Section 20.3(a) of 10 CFR Part 20 is amended by adding immediately following subparagraph (4) a new subparagraph (4a) to read as follows:

**§ 20.3 Definitions.**

(a) As used in this part:

* * * * *

(4a) "Calendar year" means four consecutive calendar quarters starting with the calendar quarter which begins in January.

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3. The undesignated center heading preceding § 20.101, 10 CFR Part 20, is amended to read "Radiation Protection Standards Applicable to Doses, Levels, and Concentrations."

4. Section 20.101, 10 CFR Part 20, is revised to read as follows:

**§ 20.101 Radiation protection standards for individuals in restricted areas.**

Except as provided in § 20.104, no licensee shall possess, use, or transfer licensed material in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter or one calendar year from radioactive material and other sources of radiation a total dose in excess of the standards specified in the following table:

| | Rems per calendar quarter | Rems per calendar year |
|---|---|---|
| 1. Whole body, head and trunk; active blood-forming organs; lens of eyes; or gonads | 3 | 5 |
| 2. Hands and forearms; feet and ankles | 18¾ | 75 |
| 3. Skin of whole body | 7½ | 30 |

5. Section 20.102, 10 CFR Part 20, is revised to read as follows:

**§ 20.102 Determination of prior dose.**

Each licensee shall require any individual, prior to first entry of the individual into the licensee's restricted area during each employment or work assignment under such circumstances that the individual will receive or is likely to receive in any period of one calendar quarter a dose in excess of 5 percent of the applicable annual standards specified in § 20.101, to disclose in a written, signed statement, either, (a) that the individual had no prior dose during the current calendar year, or (b) the nature and amount of any dose which the individual may have received during each specifically identified calendar quarter of the current calendar year from sources of radiation possessed or controlled by other persons. Each licensee shall maintain records of such statements until the Commission authorizes their disposition.

6. In § 20.104, 10 CFR Part 20, paragraph (a) is amended to read as follows:

**§ 20.104 Exposure of minors.**

(a) No licensee shall possess, use or transfer licensed material in such a manner as to cause any individual within a restricted area who is under 18 years of age to receive in any period of one calendar quarter from radioactive material and other sources of radiation a dose in excess of 2.5 percent of the annual standards specified in the table in § 20.101.

* * * * *

7. In § 20.202, 10 CFR Part 20, paragraphs (a)(1) and (a)(2) are amended to read as follows:

**§ 20.202 Personnel monitoring.**

(a) Each licensee shall supply appropriate personnel monitoring equipment to, and shall require the use of such equipment by:

(1) Each individual 18 years of age or older who enters a restricted area under such circumstances that the individual receives, or is likely to receive, a dose in any calendar quarter in excess of 5 percent of the annual standards specified in § 20.101.

(2) Each individual under 18 years of age who enters a restricted area under such circumstances that the individual receives, or is likely to receive, a dose in any calendar quarter in excess of 1.25 percent of the annual standards specified in § 20.101.

* * * * *

(Sec. 161, Pub. L. 83-703, 68 Stat. 948 (42 U.S.C. 2201), sec. 201 as amended, Pub. L. 93-438, 88 Stat. 1242 (42 U.S.C. 5841))

Dated at Washington, D.C. this 13th day of February, 1979.

For the Nuclear Regulatory Commission.

SAMUEL J. CHILK,
*Secretary of the Commission.*

[FR Doc. 79-5265 Filed 2-16-79; 8:45 am]

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|---|---|---|
| 1 | Rodger W. Granlund, Pennsylvania State University | 02-27-79 |
| 2 | Richard DiSalvo, Hittman Corporation | 02-28-79 |
| 3 | E. E. Gutwein, Gilbert/Commonwealth | 03-02-79 |
| 4 | James L. Frogge, Bishop McNamara High School | 03-05-79 |
| 5 | Edward P. O'Donnell, Ebasco Services | 03-05-79 |
| 6 | William Reynolds, American Friends Service Committee | 03-06-79 |
| 7 | Steven F. Kensicki | 03-07-79 |
| 8 | Paul R. Shoop, I B E W | 03-12-79 |
| 9 | G. D. Adams, PhD, Radiological Physicist | 03-12-79 |
| 10 | Dick Hermans, Safe Energy Coalition of N Y State | 03-13-79 |
| 11 | Roger Strelow, Counsel for Commonwealth Edison, Co. Leva, Hawes, Symington, Martin & Oppenheimer | 03-13-79 |
| 12 | Dalwyn R. Davidson, Cleveland Electric Illuminating Co | 03-14-79 |
| 13 | Stephen M. Sorenson, RAD Services | 03-14-79 |
| 14 | James V. Lampka, Bunker Hill Community College | 03-15-79 |
| 15 | Dr. David E. Drum, Harvard Medical School, Dept. of Radiology, Joint Program in Nuclear Medicine | 03-15-79 |
| 16 | Darrel W. Pruitt, Pryor Foundry, Inc. | 03-15-79 |
| 17 | A. T. Tuma, MD, Poplar Bluff Hospital, Inc. | 03-16-79 |
| 18 | Frazier Bronson, Pres., Midwest Chapter, H P S | 03-16-79 |
| 19 | Steven R. Lueders | 03-17-79 |
| 20 | Hugh W. Bryant, U. of Texas at Austin | 03-21-79 |
| 21 | Samuel Levin, Massachusetts Institute of Technology | 03-22-79 |
| 22 | Roger T. Waite, Consulting Engineer | 03-23-79 |
| 23 | A. L. Baietti, ICN Chemical & Radioisotope Division | 03-26-79 |
| 24 | Robert L. Bell, Auburn University | 03-27-79 |
| 25 | Allen Cash, Uba Heat Transfer Corporation | 03-27-79 |

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| 26 | Dr. Rosalie Bertell, G N S H | 03-30-79 |
| 27 | John C. Evraets, U. of Calif Los Angeles | 03-30-79 |
| 28 | Walter F. Wegst, Calif. Institute of Technology | 04-02-79 |
| 29 | John C. Elliott, MD, Tennessee Valley Authority | 04-03-79 |
| 30 | John B. McCormack | 04-04-79 |
| 31 | Frank E. Gallagher, U. of Calif. Santa Barbara | 04-04-79 |
| 32 | Byron Lee, Jr. Commonwealth Edison | 04-06-79 |
| 33 | William H. Aaroe, State of W. Va. | 04-06-79 |
| 34 | C. M. Stallings, Virginia Electric and Power | 04-06-79 |
| 35 | D. L. Renberger, Washington Public Power Supply System | 04-06-79 |
| 36 | Harry D. Richardson, NSI | 04-11-79 |
| 37 | Walter P. Peeples, Gulf Nuclear Inc. | 04-11-79 |
| 38 | William O. Parker, Duke Power Company | 04-12-79 |
| 39 | Lionel Lewis, HP Task Force of Edison Electric Insitut. | 04-16-79 |
| 40 | A. N. Tschaeche, People for Energy Progress | 04-16-79 |
| 41 | C. E. Winters, Todd, Research & Technical Division | 04-16-79 |
| 42 | E. L. Thomas, Air Transport Association, with letters from W. W. Schaefer, American Airlines of 4-5-79, and B. L. Francoeur, Air Canada of 3-28-79 | 04-17-79 |
| 43 | R. Nilson, Exxon Nuclear Company | 04-17-79 |
| 44 | K. P. Baskin, Southern California Edison Company | 04-17-79 |
| 45 | John C. Evraets, Southern Calif. Chapter HPS | 04-17-79 |
| 46 | Michael H. Mobley, State of Tennessee | 04-17-79 |
| 47 | C. R. Anderson, American Airlines | 04-18-79 |
| 48 | Congressman Ron Paul, with Peeples letter of 4-11-79 | 04-18-79 |
| 49 | Roger Strelow, Leva, Hawes, Symington, Martin & Oppenheimer | 19-79 |
| 50 | John W. Gore, Baltimore Gas and Electric Company | 04-19-79 |

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| 51 | James S. Grant, Toledo Edison | 04-19-79 |
| 52 | Glenn G. Sherwood, General Electric Company | 04-20-79 |
| 53 | E. E. VanBrunt, Arizona Public Service Company | 04-20-79 |
| 54 | Benjamin R. Sturges | 04-20-79 |
| 55 | W. G. Counsil, Northeast Utilities | 04-20-79 |
| 56 | Pagel and Anglin, Vanderbilt University | no date |
| 57 | Kitty Tucker, Health and Energy Learning Project | 04-22-79 |
| 58 | Dr. Norman Cohen, New York University Medical Center | 04-23-79 |
| 59 | Warren K. Sinclair, NCRP | 04-23-79 |
| 60 | R. L. Mittl, Public Service Electric & Gas, Newark NJ | 04-23-79 |
| 61 | Douglas K. Garfield, Beckman Instruments, Inc. | 04-23-79 |
| 62 | William R. Prendergast, LFE Corp. Process Control Div | 04-23-79 |
| 63 | Charles H. Pillard<br>Theodore J. Riccio, IBEW, Conn Yankee Unit | 04-23-79 |
| 64 | Ronald E. Zelac, Temple University | 04-23-79 |
| 65 | Terence J. Sullivan, Consumers Power | 04-23-79 |
| 66 | Isham, Lincoln & Beale | 04-23-79 |
| 67 | W. P. Johnson, Yankee Atomic Electric Company | 04-23-79 |
| 68 | T. M. Anderson, Westinghous Electric Corporation | 04-23-79 |
| 69 | Duane Arnold, Iowa Electric Light and Power Company | 04-23-79 |
| 70 | William J. Cahill, Consolidated Edison Co of N Y | 04-23-79 |
| 71 | Michael H. Bancroft, Public Citizen Litigation Group | 04-24-79 |
| 72 | Lionel Lewis, EEI HP Task Force (refer to 4-16 letter) | 04-24-79 |
| 73 | Howard J. Larson, A I F | 04-24-79 |
| 74 | Sol Burstein, Wisconsin Electric Power Company | 04-24-79 |
| 75 | Robert E. Uhrig, Florida Power & Light Company | 04-24-79 |

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| 76 | B. Jim Porter, State of Louisiana | 04-25-79 |
| 77 | Shields L. Daltroff, Philadelphia Electric Company | 04-25-79 |
| 78 | H. O. Thrash, Alabama Power | 05-01-79 |
| 79 | Dean Hansell for William J. Scott, Attorney General (comments for the people of the State of Illinois) | 05-04-79 |
| 80 | T. K. DeBoer, State of New York | 05-04-79 |
| 81 | Roger Strelow, Leva, Hawes, Symington, Martin & Oppenheimer on behalf of Commonwealth Edison Co. | 05-11-79 |
| 82 | Chris Norby, San Jose Medical Clinic, Inc. | 05-21-79 |
| 83 | J. A. Jones, Carolina Power & Light Company | 05-15-79 |