

1. AMENDMENT/MODIFICATION NO. <b>1</b>	2. EFFECTIVE DATE <b>10/1/80</b>	3. REQUISITION/PURCHASE REQUEST NO.	4. PROJECT NO. (If applicable)
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5. ISSUED BY <b>U. S. Nuclear Regulatory Commission Division of Contracts Washington, DC 20555</b>	6. ADMINISTERED BY (If other than block 5)
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7. CONTRACTOR NAME AND ADDRESS <b>Commonwealth of Massachusetts Department of Public Health Radiation Control Program 600 Washington Street Boston, MA 02111</b>	8. AMENDMENT OF SOLICITATION NO. _____ DATED _____ (See block 9) MODIFICATION OF CONTRACT/ORDER NO. <b>NRC-05-80-286</b> DATED <b>7/21/80</b> (See block 11)
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9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers  is extended,  is not extended.

Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:

(a) By signing and returning \_\_\_\_\_ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)

**31X0200.300      B&R NO. 30-19-04-03      FIN NO. B1249      \$1,800.00**

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS

(a)  This Change Order is issued pursuant to \_\_\_\_\_  
The Changes set forth in block 12 are made to the above numbered contract/order.

(b)  The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12.

(c)  This Supplemental Agreement is entered into pursuant to authority of **41 U.S.C. 252(c)(10)**  
It modifies the above numbered contract as set forth in block 12.

12. DESCRIPTION OF AMENDMENT/MODIFICATION

The purpose of this modification is to provide for field sampling and collection aspects of the environmental monitoring program around the Pilgrim and Yankee Nuclear Power Stations effective October 1, 1980.

Accordingly, the following changes are made:

I. Article II - Scope of Work, first paragraph, is changed to read as follows:

"The State and the Commission shall engage in a cooperative agreement for measuring concentrations of radioactivity and radiation levels in the environment of Commission-licensed activities in sites selected by the Commission. The principal objectives of the program are to 1) provide reasonable assurance that environmental measurements made by the licensee under Commission requirements are valid, and 2) to independently monitor direct radiation levels in the environs of nuclear facilities."

Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.

13.  CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT       CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN **4** COPIES TO ISSUING OFFICE

14. NAME OF CONTRACTOR/OFFEROR BY <b>Alfred L. Frechette</b> (Signature of person authorized to sign)	17. UNITED STATES OF AMERICA BY <b>Kellogg V. Morton</b> (Signature of Contracting Officer)
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15. NAME AND TITLE OF SIGNER (Type or print) <b>Alfred L. Frechette, M.D. Commissioner</b>	16. DATE SIGNED <b>9-24-80</b>	18. NAME OF CONTRACTING OFFICER (Type or print) <b>Kellogg V. Morton</b>	19. DATE SIGNED <b>OCT 14 1980</b>
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II. Article IV - Division of Responsibility, the following changes are made:

- A. Paragraph A is deleted in its entirety, and the following new paragraph A is substituted in lieu thereof:

"A. At the request of the Commission, the State will conduct off-site activities which shall consist of collecting environmental media samples, and exchanging dosimeters for measuring radiation levels, as specified in Attachment A."

- B. Paragraph B is deleted in its entirety and the following new paragraph B is substituted in lieu thereof:

"B. The Commission will participate with the State in developing schedules, sample and data collection procedures, analytical methods and other aspects of the program. The parties may split samples for separate analyses."

III. Article V - Consideration and Payment, Paragraph A., Consideration, the following changes are made:

- A. Subparagraph 1. is deleted in its entirety and the following new subparagraph 1. is substituted in lieu thereof:

"1. The Commission will provide funds, subject to the availability of appropriation, to the State in the amount of \$25,000.00 during the three (3) year period of performance. The rate of payment to the State will be as follows:

CY 1980 - \$900.00 per site, per year/modified environmental media program

CY 1980 - \$1,000.00 per site, per year/TLD Program

CY 1981 - \$3,950.00 per site, per year/modified environmental media program

CY 1981 - \$1,100.00 per site, per year/TLD program

CY 1982 - \$4,350.00 per site, per year/modified environmental media program

CY 1982 - \$1,200.00 per site, per year/TLD program"

- B. Subparagraph 3. is deleted in its entirety and the following new subparagraph 3. is substituted in lieu thereof:

"3. The amount presently obligated by the Commission with respect to this cooperative agreement for the CY 1980 effort is \$3,800.00."

- IV. Attachment A, Statement of Work, the following changes are made:

- A. Paragraph I, Purpose, is deleted in its entirety and the following new Paragraph I is substituted in lieu thereof:

"I. PURPOSE

The purpose of this cooperative agreement is to establish a collaborative program between the Commonwealth of Massachusetts (hereinafter called the "State") and the Commission to provide independent measurements of radioactivity and radiation levels in the environment around selected Commission licensed activities, and to provide reasonable assurance that a licensee's environmental measurements are valid."

- B. Paragraph II, General Requirements, subparagraph C. is deleted in its entirety and the following new subparagraph C. is substituted in lieu thereof:

"C. Attachments 1, 2, and 3 show the overall sampling requirements for facilities. No on-site samples will be collected pursuant to the cooperative agreement unless specifically requested or approved by the Commission."

- C. Paragraph III, Procedures for Implementing and Conducting the Programs, is deleted in its entirety and the following new paragraph III is substituted in lieu thereof:

"III. PROCEDURES FOR IMPLEMENTING AND CONDUCTING THE PROGRAMS

- A. The Commission's Office of Inspection and Enforcement (IE) Technical Representative will provide technical liaison, as necessary, between the State and the licensee, in all matters relating to the program conducted pursuant to the cooperative agreement. This liaison may be delegated to the NRC Region I Technical Representative for the particular NRC Licensee involved.
- B. The State will make all necessary contacts and arrangements for collecting samples in the off-site environ-

ment, e.g., obtaining access to private property, assistance of State or local agencies, arranging with private firms for services, etc.

- C. The State will make all necessary contacts and arrangements with the licensee to split samples with the licensee, obtain duplicate samples and obtain licensee's data on the comparative samples.
- D. The Commission will assist the State in selecting sampling locations, arranging for laboratory support, as necessary, splitting samples periodically, assisting State in obtaining licensee's comparative data, and consulting with the State on matters of mutual concern.
- E. The State will exchange TLDs at stations established jointly by the Commission and the State on a frequency of  $92 \pm 7$  days starting on January 1, 1980. The interval between exchanges shall not be smaller than 80 days nor larger than 100 days.

During an exchange, the State will replace TLDs currently in the field with annealed TLDs supplied by NRC Region I office. Intransit control TLD will be placed in lead cask on arrival at State's point of dispatch.

Exposed TLDs will be shipped back to NRC Region I as soon as possible by conveyance agreed upon by the Commission and State.

- F. The State will notify the NRC Office of Inspection and Enforcement Region I Office by telephone (215 337-5217, FTS 488-1217) and written confirmation, as soon as practicable after it becomes aware of any observed unusual condition, level of radiation, or concentrations of radioactive material measured in carrying out the programs at individual sites.
  - G. The Commission will make the necessary inspections, investigations, and inquiries to ascertain the status of compliance by the licensees with license provisions, rules, orders, and regulations of the Commission and to determine the safety of licensee operations; and will initiate enforcement or other regulatory action as appropriate. Results of such inspections, investigations, or inquiries conducted in response to such notification shall be provided to the State."
- D. Paragraph IV, Reporting, is deleted in its entirety and the following new paragraph IV is substituted in lieu thereof:

"IV. REPORTING

- A. The State will provide the Commission with an annual report of all off-site analyses with comparisons of similar analyses by the respective licensee within 120 days after January 1 of each year. The report shall follow the format of Attachment 2. In the event that some results are not available within the 120-day period, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report. If samples are not available, data analysis is not expected. However, a brief explanation as to why the sample was not provided is requested. If samples or data are not available because of the reluctance of the licensee to provide them, the NRC IE Regional Technical Representative should be notified as soon as possible.
- B. The Commission will arrange for the timely distribution of the reports within the Commission and to the licensee, and any other Federal, State or local agencies as may be necessary in meeting the intent of the "National Environmental Policy Act of 1969" (Public Law 91-190, 83 Stat. 853, dated January 1, 1970) for keeping affected agencies informed.
- C. The Commission will work with the State in making the program findings publicly available through special bulletins, press releases, and publication in appropriate technical journals or periodicals, or otherwise to assure prompt and wide distribution of the data at minimum cost.
- D. The State will provide to the Commission on a quarterly basis, a report covering NRC funds expended during the preceding quarter, a total expenditure of funds under this cooperative agreement, and a tabulation of Services Rendered by facility. The format is shown in Attachment 3. This report shall be submitted to the Contracting Officer."
- V. Attachment 1, Environmental Radiological Verification Monitoring Program Around Nuclear Power Plants, Attachment 2, Name of Facility, and Attachment 3, Description of Services Rendered, are hereby added to and made a part of this cooperative agreement.
- V. The contract amount is hereby increased by \$18,400.00 from \$6,600.00 to \$25,000.00, by reason of this Modification No. 1.

ATTACHMENT 1

ENVIRONMENTAL RADIOLOGICAL VERIFICATION MONITORING PROGRAM  
AROUND NUCLEAR POWER PLANTS

<u>Exposure Pathway and/or Sample</u>	<u>Number of Samples and Location</u>	<u>Sampling and Collection Frequency</u>
<b>AIRBORNE:</b>		
Particulates	One sample from location of high calculated ground level concentration and in close proximity of licensee sampler.	Continuous operation of sampler with sample collection as required by dust loading but at least once per 7 days.
Pilgrim		
Rowe	One sample from control location.	
Radioiodine	Same as particulates	One sample per month.
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<b>WATERBORNE:</b>		
Surface	One sample, split with licensee, from immediate area of discharge, (or at nearest downstream drinking water supply) and one sample at upstream control location.	Composite sample monthly.
Pilgrim		
Rowe		
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<b>INGESTION:</b>		
Milk	One sample, split with licensee, at the off-site dairy farm or individual milk animal at the location having highest X/Q.	Monthly.
Pilgrim		
Rowe		
Fish or Invertebrates	One sample, split with licensee, of a commercially or recreationally important species in vicinity of discharge point.	Semiannually or in season.
Pilgrim		

<u>Exposure Pathway and/or Sample</u>	<u>Number of Samples and Location</u>	<u>Sampling and Collection Frequency</u>
Food Products  Pilgrim Rowe	Two samples split with licensee, of principal food products grown near point having the highest X/Q or from any area which is irrigated by water in which fluid plant wastes have been discharged or green leafy vegetables at a private garden or farm in the immediate area of the plant.	At time of harvest.
Sediment from Shoreline  Pilgrim	One sample split with licensee.	Annually.
TLD-Direct Radiation  Pilgrim Rowe	<ul style="list-style-type: none"> <li>a. TLD badges in 16 sectors around plant site at two distances from site boundary:               <ul style="list-style-type: none"> <li>1) Site boundary out to 1 mile</li> <li>2) Two (2) to 4 miles from site boundary.</li> </ul> </li> <li>b. Population centers within 10 miles.</li> <li>c. Maximum exposed residences within 3 miles.</li> <li>d. High public interest sites within 5 miles.</li> </ul>	Quarterly

ATTACHMENT 2

Name of Facility

(Location of Facility)

(Reporting Period)

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Medium or Pathway Sampled	Split or Duplicate Sample	Location Name	Distance & Direction	Date	State Results	Licensee Results
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ATTACHMENT 3

Description of Services Rendered

Facility \_\_\_\_\_  
 Time Period \_\_\_\_\_

Location \_\_\_\_\_  
 To \_\_\_\_\_

Number of Sample Collected	Sample Type
18	Air Particulate
58	Radioiodine
18	TLDs
6	Water
2	Sediment
2	Milk
0	Food Products
2	Fish

Man-hours expended:

Field Sampling.....351 hours

Administration.....127 hours  
 478 hours