



U.S. DEPARTMENT OF COMMERCE
 National Oceanic and Atmospheric Administration
 ENVIRONMENTAL RESEARCH LABORATORIES

RD/R32:LM

MAR 11 1981

Mr. Kellog V. Morton
 Chief, Research Contracts Branch
 Division of Contracts
 Nuclear Regulatory Commission
 Washington, DC 20555

Dear Mr. Morton:

Enclosed is a proposal for fiscal year 1981 from the National Oceanic and Atmospheric Administration (NOAA) to the Site Safety Standards Branch, Office of Standards Development, NRC to be carried out under an Inter-agency Agreement. The proposal entitled "Meteorological Considerations in the Development of a Real-Time Atmospheric Dispersion Model for Reactor Effluent Exposure Pathway" was prepared as a result of discussions between Mr. Robert Kornasiewicz of the NRC Office of Standards Development and Dr. Isaac Van der Hoven of the NOAA Air Resources Laboratories, and is directed toward the preparation of guidance information for licensees concerning the elements to be considered in the development and application of the so-called Class A model discussed in NUREG 0654 Rev. 1. The planned work is divided into two tasks and is to be performed during the period April 1, 1981 to September 30, 1981.

A summary of requested funds is as follows:

Task 1

Direct Labor Costs (0.1 m.y.)	\$10,000
NOAA Support Services	2,000
Total	\$12,000

Task 2

Direct Labor Costs (0.7 m.y.)	\$50,000
Other Costs	3,000
	53,000
NOAA Support Services	10,000
Total	\$63,000

Total Costs, Tasks 1 and 2 \$75,000

Questions concerning the technical aspects of the proposal should be directed to Dr. I. Van der Hoven (FTS 427-7645). Questions concerning the

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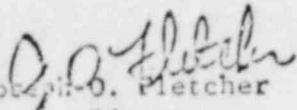


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interagency administrative arrangements should be directed to Ms. Donna Leise, Environmental Research Laboratories' Budget Office, (FIS 320-6274) or to Ms. Jean Craig, Air Resources Laboratories' Budget and Support Assistant (FIS 427-7609).

Sincerely,


Joseph O. Fletcher
Acting Director
Environmental Research Laboratories

Enclosure

cc: Raymond Gustave
NRC Research Contracts Branch

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Proposal

Meteorological Considerations in the Development of a Real-Time Atmospheric Dispersion Model for Reactor Effluent Exposure Pathway

Introduction

It is proposed that the NOAA Air Resources Laboratories enter into an interagency agreement with the Nuclear Regulatory Commission to prepare guidance information for reactor licensees concerning the regulations and the meteorological elements to be considered in the development of an emergency plan and in the application of the so-called Class A model as discussed in NUREG 0654, Rev. 1.

Task 1: Survey of Regulations and Summary of Meteorological Elements to be Considered in Applying the Class A Model

A survey and listing of the guidance in existing NRC documents with regard to the use of the Class A model will be made and elaborated upon. Guidance will also be given on the meteorological problems and elements which arise in site specific cases such as, for example, a coastal location. In cases other than relatively flat, smooth, and homogeneous terrain, guidance will be given as to appropriate models and the meteorological measurements needed as input to the models.

Task 2: An Example of an Existing Radiological Response Capability

A complete description of the NOAA radiological response capability at the Idaho National Engineering Laboratory will be given in a separate report. In addition to describing instrument and computer hardware (including cost) as well as computer software, actual examples of computer output under straight line and curved trajectory conditions will be run using both a single-station wind and a multi-station wind network as input. The overall response process will be viewed as components involving: 1) notification of incident; 2) data output; (3) model calculations; 4) output products, and 5) dissemination of information, guidance, and interpretation to users.

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