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SECRETARY

BUREAU OF MINES
ENERGY OFFICE
POWER PLANT SITING PROGRAM

STATE OF MARYLAND

DEPARTMENT OF NATURAL RESOURCES
ENERGY ADMINISTRATION
TAWES STATE OFFICE BUILDING
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April 21, 1981

Dr. Bernard Snyder
Program Director
TMI Program Office
Office of Nuclear Reaction Regulation
USNRC
Washington, D. C. 20555



Dear Dr. Snyder:

As you know, Maryland is considering the initiation of a study to provide input regarding the socioeconomic risk attached to an option of discharging the TMI processed water into the Susquehanna River. Attached is a working outline indicating a possible approach to this question.

I would like to solicit your suggestions pertaining to the development of a more specific definition of tasks. Hopefully I can gain any input from your prior to or at the May 5 meeting with Henry Wagner (Johns Hopkins University).

Please give me a call if you wish, but realize our need to maintain an independent perspective.

Very truly yours,

Peter M. Dunbar
Administrator of Site Evaluations

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SECTION III SCOPE OF WORK

Objective

In March of 1981 the Nuclear Regulatory Commission issued the final Environmental Impact Statement regarding the cleanup of Three Mile Island. Among the cleanup options considered in that statement is included a discharge of processed radioactive wastewater into the Susquehanna River.

It is desirable that the Maryland Power Plant Siting Program (MPPSP) should evaluate the potential of adverse reactions by consumers of Bay seafood products to such a processed water discharge. Maryland's intentions in performing such a study are to independently develop information to supplement and complement information expected to be developed by the Nuclear Regulatory Commission (NRC). Consequently, this study will serve as background to the formulation of the State's position with respect to participation in any NRC decision making process.

Program Office Description

The Power Plant Siting program was established in 1971 to insure that demands for electric power will be met in a timely manner at reasonable cost while assuring that the natural environment is protected. The scope of the Program extends to predicting the impact of proposed new generating

facilities, assessing the impact of existing generating facilities, acquiring sites for utilities unable to find a suitable site for needed generation, and investigating numerous information gaps through a long-range research program.

With the exception of radiological studies, the majority of work is performed by physical and biological scientists working for PPSP on a contractual basis. The work is administered by PPSP staff, who integrate results into the various decision processes concerning siting and impact questions.

Radiological analysis is performed by Power Plant Siting staff members. With respect to the Three Mile Island incident these individuals have been actively involved in comment and technical monitoring since the March 1979 event. Specific data has been and will continue to be collected and analyzed independently of all other agencies and utility groups. The need to maintain these independent radiological capabilities is well recognized.

Background

The TMI accident generated approximately 1.5 million gallons of contaminated water. About 50% of this water has been treated via the Epicor II system and is stored on site. Pending NRC approval, the remaining water will be processed by the submerged demineralizer system (SDS) and also stored on site. Processing will reduce all radionuclide concentrations except tritium to trace levels. Tritium cannot be removed with such methods. The total amount present will be approximately 4000 Ci.

Through its own sampling and analysis capabilities the program office has verified the concentration of radionuclides present after processing. Similar independent verification will be applied to SDS processed water. Furthermore, the office has concluded that there are no adverse radiological or health impacts to the residents of Maryland or to biota in the Bay should the processed water be discharged into the Susquehanna river.

However, this office is concerned that the public reaction to the discharge option could adversely impact the economic structure and continued ^{ia} ~~vari~~ability of Bay fishery industries through a mechanism of consumer avoidance based on fear. This possibility is mentioned in the NRC's final programmatic impact statement. It is expected that the NRC will perform comprehensive studies of the socioeconomic impacts of the various options and the State is not interested in duplicating those studies. The State is however desirous of developing information to serve as background to the formulation of its ~~State's~~ position with respect to participation in any future NRC decision making process.

Requirements

In general, the requirement of this office is that the vendor design and implement a study to assess the potential socioeconomic impacts on Maryland associated with a discharge of processed TMI accident water into

the Susquehanna River. The approach to this problem must be clearly stated and the capability to implement and complete any such study must be indicated.

The successful vendor will exhibit a capability to acquire an in depth understanding of the somewhat unique nature of the Chesapeake Bay Fishery industry, the nature of employment as a Bay Waterman, and the community-economic interlacing which exists. The vendor must be able to understand the nature of the product market and the extent of competition from other regions. Recreational activities such as hunting, fishing, and pleasure boating should also be considered.

The vendor must be able to research the historical record to ascertain events which resulted in consumer avoidance or, on the other hand, events in which an expected consumer avoidance did not materialize. It is recognized that no one past event is entirely similar to the situation at hand; however, the vendor must be able to evaluate various aspects of other events which could provide indications as to what could be the case with a discharge from TMI.

The vendor must be able to evaluate the various arguments relating to the discharge option in terms of any impact they may have upon the potential of an avoidance reaction. This evaluation must include an understanding of the current and projected role which the media could play in influencing public ~~opinion~~ *opinion*.

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Although essential that the vendor be able to address the above issue,⁵ it is also expected that the vendor would be able to go beyond these points and identify other important issues in a risk assessment of this nature.