BROOKHAVEN NATIONAL LABORATORY

MEDICAL DEPARTMENT

POSITION PAPER ON THE BURTON BILL PL 96-205

Public Law 96-205 (the Burton Bill), enacted in March 1980, requires the Secretary of the Interior to provide for the people of the atolls of Bikini, Enewetak, Rongelap, and Utirik, and for the people of such other atolls as may be found to be or to have been exposed to radiation from the nuclear weapons testing program, a program of medical care and treatment and environmental research and monitoring for any injury, illness or condition which may be the result directly or indirectly of such nuclear weapons testing program. The plan for this program developed in conjunction with a number of other Federal agencies, contractors, and representatives from the Marshallese shall set forth as appropriate to the situation, condition, and needs of the individual atoll peoples:

1. "An integrated, comprehensive health care program including primary, secondary, and tertiary care with special (implies 'but not exclusive') emphasis upon the biologic effects of ionizing radiation;

2. A schedule for the periodic comprehensive survey and analysis of the radiologic status of the atolls to and at appropriate intervals, but not less frequently than once every five years, the development of an updated radiation dose assessment, together with an estimate of the risks associated with the predicted human exposure, for each such atoll; and

3. An education and information program to enable the people of such atolls to more fully understand nuclear radiation and its effects;"....

"The plan shall set forth specific agencies responsible for implementing the various elements of the plan... the Secretary (DOI) shall establish a scientific advisory committee to review and evaluate the implementation of the plan and to make such recommendations for its improvement as such committee deems advisable...At the request of the Secretary (DOI), any federal agency shall provide such information, personnel, facilities, logistic support, or other assistance as the Secretary deems necessary to carry out the functions of this program."

A review of the previous listed abstracts of PL 96-205 would indicate that the Secretary of the Interior and his designated administrators will be responsible for the development, implementation and operation of the mandates of the bill. The bill also includes the following statement, "with respect to general health care, the Secretary shall consider and shall include in his recommendations, the feasibility of using the Public Health Service. After consultation with the Chairman of the National Academy of Sciences, the Secretary of Energy, the Secretary of Defense, and the Secretary of Health, Education and Welfare, the Secretary (DOI) shall establish a Scientific Advisory Committee to review and evaluate the implementation of the plan and make such recommendations for its improvement as such Committee deems advisable."

It appears then that the operational management will be the responsibility of Interior, acting under the advice of the "Scientific Advisory Committee".

I would imagine that the Secretary of the Interior will attempt to establish a medical care system patterned after the Indian Health Care Service funded through the DOI. I am not familiar with the details of the operational capabilities of the Public Health Service other than some

transient contacts with the Indian Health Service. The BNL/Marshall Islands Program has, on a number of occasions, utilized the consultants from the Public Health Service. Our current Senior Public Health Consultant is Dr. W. A. Krotoski from the U.S. Public Health Hospital, 210 State Street, New Orleans, LA 70118, telephone 8/686-3530. Dr. Krotoski is a specialist in tropical diseases and has been active as a consultant in the program for a number of years.

From a pragmatic analysis of the bill it would appear that total health care is authorized specifically for the atolls mentioned plus the people of any other atolls exposed to radiation who have developed any "condition" which may be the result, directly or indirectly, of the nuclear weapons testing program. We know from the USS Wheeling monitoring of Likiep that there was a light dusting of that atoll. I am unsure of what further monitoring has revealed, but I understand that data exist that raise the question of "some contamination" on "all of the Marshall Islands" occurring at some time during the entire testing period. More specifically, the Marshall Islands Government has designated all atolls north of 13° north latitude "contaminated". I don't know how they reached this conclusion. The total population of the Marshall Islands is currently somewhere between 28 and 30 thousand people. One of the larger population groups south of the 13th parallel includes the 600+ Bikinians who I am sure will claim psychosocial injury due indirectly to the nuclear weapons testing, so in reality, I think that the Marshall Islands Government will take legal steps to bring all of the Marshall Islands populations under the authorization of this bill.

If this is a fact then the plan should provide, at one end of the spectrum of contingencies, for provision of total health care for 30,000 people. The provisions for radiologic education, ecologic and whole body monitoring are addressed by a memorandum from the Safety and Environmental Protection

Department of BNL. My comments will be directed only to the alternatives for the BNL interface with the DOI health care system.

During the development of the Burton Bill, one of the authors, Ted Mitchell, consulted with our BNL staff, asking for our opinions about current and past medical experiences in the Marshall Islands. The BNL Medical Survey Teams over the last 26 years have provided in essence, periodic high quality medical care, specifically for the people of Rongelap, Ailingnae and Utirik. In addition, particularly over the last five years, we have been called on as consultants for primary care, interacting with the Trust Territory and more recently with the Marshall Island Health Care Delivery System. Our original mandate from the Department of Energy was to monitor the exposed population of those atolls for the earliest effects of radiation and to treat those conditions expeditiously. The radiation related pathology detected to date has been limited almost exclusively to the thyroid gland, except for one case of acute myelogenous leukemia. The rest of the medical care delivered by the BNL medical temas has really been nonradiation related.

During 1979 approximately 1,000 Marshallese were seen on three separate field visits. We currently hold well over 1,000 active medical charts for the exposed and "comparison" populations containing clinical data for the last 26 years. We feel it would be appropriate to continue to offer our services specifically in the detection and treatment of radiation-related pathology.

The ambiguities of the bill will almost certainly overload the system with nonradiation related illnesses. A number of alternatives exist for the solutions to this problem. A spectrum of options could be envisioned ranging from a very narrow and precise definition of the term "radiation-related diseases" to the much more likely Marshallese interpretation including all people impacted psychologically by the weapons test program. These options

must be considered in light of the new Marshall Islands Health Care System. This system is just being developed under contract with a Seventh Day Adventist Health Maintenance Organization. I understand that President Kabua has just submitted a letter to the Burton and Yates Committee requesting $250,000 for the funding of this effort. I understand from the Seventh Day Adventist group that tentative plans have been made to staff Majuro Hospital with an internist, a surgeon and a general practitioner. Information from the DOI indicates that the construction of the new hospital at Majuro will probably be deferred for at least 2 years. Consequently, the medical facilities will continue to be marginal, at least for this period of time, and probably for an additional 2 years both at Majuro and Ebeye.

The series of options might begin with an on-site coordinated support program utilizing the Public Health Service Health Professionals working in conjunction with the Seventh Day Adventist HMO. This option, however, would not address the primary health care problems of the Marshall Islands which are: (1) communications, (2) transportation. These problems can be solved with the proper application of existing technologic resources. The Marshall Islands Government at the present time is making a concerted effort to upgrade both of these areas. We understand they are in the process of putting STOL (short take off and landing) strips on most of the atolls and have purchased two STOL aircraft.

The dispensary facilities at the outer island atolls certainly must be upgraded and the communication facilities strengthened. There must be <u>as a minimum</u>, reliable voice communication and the facility for air evacuation. Telecommunications via satellite between CDC Atlanta and Micronesia are already functional. This technology could be expanded to be used between the major health care facilities on Majuro and the outer atolls. The ability to utilize daily video communications with medical experts at the Majuro Hospital

would greatly enhance health care in the outer islands.

A second option would be to depend upon the Marshall Islands HMO to deliver the basic health care delivery and to superimpose upon that system intermittent medical field trips. These field trips could be mounted very much like the Brookhaven quarterly field trips but would of course require visiting a number of new atolls. It would appear in this option that basically two identifiable populations exist. They are (1) those people who have received significant acute and possibly long term low level radiation, e.g., Rongelap, Ailignae and Utirik, and (2) all other atolls which have received above ambient Micronesian background radiation or who have people with a legitimate claim for health care under the mandates of this bill. Under this option it would probably be advisable for the BNL medical program to continue to monitor the acute exposed population and if requested, to act as a consultant group to such other support agencies as would require their expertise. It would seem desirable to identify a second field survey group without a nuclear identity, such as the Public Health Service or a coalition of universities who could mount periodic health care visits to the remaining atolls. BNL has been working on developing such an affiliation over the last year with a group of universities in the Los Angeles area including the University of Southern California, UCLA and Loma Linda University (the College of Medical Evangelists). That group could work in coordination with or independently from the Public Health Service should they become the responsible agency.

From a practical standpoint it would be impractical and fiscally unwise to attempt to develop a "westernized health care system" in the Marshall Islands. The reasons for this I think are amply demonstrated in the literature citing the problems of developing a cost-effective health care delivery system in a third world nation. A basic text dealing with this specific

area is entitled, "Health and the Developing World", by John Bryant, M.D., from Cornell University Press. This book specifically addresses the wide spectrum of health care options open to developing nations. He specifically discusses the economic problems including the cost-benefit/cost-effectiveness of various forms of health care delivery. I would highly recommend this text to the members of the Planning Committee.