



Department of Energy
Washington, DC 20585

H61
BNL med file

April 7, 1989

The Honorable Tom Beville
Chairman, Subcommittee on Energy
and Water Development
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

House Report 100-618, which accompanied Public Law 100-371, the FY 1989 Energy and Water Development Appropriations Act, directs the Department of Energy (DOE) to prepare a report on a coordinated plan for continuation of health and environmental programs, on all the affected atolls of the Marshall Islands, for future years.

We trust the enclosed report responds in full to this request. We intend to continue our full cooperation with all interested parties, including the Congress, to assist faithfully and completely the Government of the Republic of the Marshall Islands and the people of the affected atolls with technical advice and support.

Sincerely,

Troy E. Wade II
Acting Assistant Secretary
for Defense Programs

Enclosure

cc: The Honorable John T. Myers
Ranking Minority Member

Harry Brown's Files, MV
BNL Medical 89

An original of this letter was also sent to:
The Honorable J. Bennett Johnston
Chairman, Subcommittee on Energy
and Water Development
United States Senate
Washington, D.C. 20510

w/cc to:
The Honorable Mark O. Hatfield
Ranking Minority Member

Correspondence reviewer _____

DP-242:JERudolph:smg:3-3618:3/11/89 (Bevill ltr; smg)
Retyped 03/24/89:js.

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DP-50 PREVIOUS 3/ /89	MA-3 ATTACHED 3/ /89	CP-40 ATTACHED	CP-50 ATTACHED	DP/CP John Rolfe 4/13/89			

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Department of Energy (DOE)
Medical, Environmental, and Radiological Safety
Programs in the Marshall Islands
1989-1991

I. Fiscal Year (FY) 1989 Program

- A. Medical - Brookhaven National Laboratory (BNL) will continue to provide medical surveillance of the 163 exposed persons of Rongelap and Utrik and will direct and fund treatment for those individuals referred to medical facilities outside the Marshall Islands for radiation related medical problems.
- B. Environmental Studies - Lawrence Livermore National Laboratory (LLNL) will update the Eneu (Bikini) dose assessment; continue to refine techniques and monitor results of remedial agricultural efforts; continue analysis to evaluate natural environmental processes which may favorably influence dose predictions; and refine certain data for Rongelap dose predictions.
- C. Radiological Safety - BNL will conduct wholebody counting and other bioassay procedures pertaining to the Rongelap and Utrik people. The Rongelap work will produce baseline data in anticipation of a possible resettlement of Rongelap Island, while the Utrik effort will serve to verify further previous findings, thus providing reassurance to that community that continued residence will produce no significant adverse health effects. The track-etch plutonium analysis is ongoing, with the University of Utah complementing the BNL effort and providing a check on past, current, and future analyses affecting Rongelap assessments.

II. FY 1990

The program for FY 1990 is essentially a continuation of the current year's work, except for certain environmental experiments which will be phased out as their objectives are met, and the radiological safety field effort which is expected to be completed early in the fiscal year.

III. FY 1991

A. Medical

DOE will conduct and fund the Rongelap/Utrik medical program at essentially the current level until an orderly transition can be made which integrates it into the Marshall Islands health care system.

B. Environmental Studies

DOE will complete its analysis and report on samples taken in previous fiscal years. No additional field work will be conducted unless a request, accompanied by funding is received from the Republic of the Marshall Islands (RMI). Recommendations have been made for RMI funded programs which include sampling trips to Bikini, Enjebi, and other newly resettled areas to determine environmental concentrations of radionuclides and to evaluate the effectiveness of and refine remedial agricultural measures.

C. Radiological Safety

The Radiological Safety Program will be continued only to the level which maintains the basic capability in both people and equipment to conduct a field program of wholebody counting and other bioassay procedures. Sample processing and analysis will be funded to the extent needed to obtain and reduce data from the 1990 collections. DOE will use the field capability upon a funded request for technical assistance from RMI. The field program recommended for RMI funding is basically a biannual wholebody counting/bioassay mission to newly resettled atolls or islands.

This planned program recognizes the intent of Congress, as expressed in Public Law 99-239, to fund and conduct the medical surveillance and treatment of the exposed Rongelap and Utrik people. As to the environmental programs, DOE has gathered and analyzed data throughout the northern Marshalls which provide the basis for resettlement decisions at Bikini, Enewetak, and Rongelap Atoll. Recommendations have been made to the RMI Government regarding remedial agricultural measures, of proven effectiveness, which can reduce uptake of radionuclides into the food chain. Thus, the major work will be completed in FY 1990 with the analysis available in FY 1991. DOE participation in future environmental field programs after 1990 will be limited to the maintenance of a technical capability to support funded RMI requests. DOE plans to maintain this capability through FY 1991. Thereafter, it will not be available unless a funded request for support has been received from RMI in FY 1991.

IV. Funding Summary

A. Cofunding Proposal

The following program including cost sharing was proposed to RMI in September 1988. The program was accepted in principle while the sharing of costs using current RMI funding was not. (See letter O. de Brum to Rudolph - Attachment 1.)

FY 1990 - FY 1991

(\$000)

	<u>U.S.</u>	<u>RMI</u>	
Medical	1,200	0	
Wholebody Counting/Bioassay	500	500	
Environmental Assessment	750	750	
Logistical Support	700	700	
Radiological Education	25	25	
	<u>3,175</u>	<u>1,975</u>	Total: 5,150

The above proposal reflected a program that would continue environmental and radiological studies already begun as United States (U.S.) initiatives. This program has characterized the radiological conditions of the four atolls affected by U.S. test activities and would confirm previous determinations regarding the plutonium question for the Rongelap and Utrik people.

B. FY 1990 and FY 1991 Summary

The Department has revised its FY 1990 program to a level of \$5.0 million since no funding will be available from RMI. Funds for this program are contained in the Weapons Research and Development component of the Department's Atomic Energy Defense activities budget. In the absence of a funded request for technical services in FY 1991, we will reduce our effort in FY 1991 to approximately \$4.5 million. After FY 1991 the Department will only provide technical services for environmental assessments on a reimbursable basis.

The medical program will be continued as a direct DOE funded and managed effort. As the size of the exposed population decreases in the future, other means will be explored whereby the U.S. obligations to these people can be met at reduced costs with no reduction in the quality of surveillance and health care for radiation-related disorders.

Attachments 2 and 3 are estimated program funding requirements for FY 1990 and FY 1991 based on no funded requests from RMI. In the event RMI requests DOE technical support, the budget submission for FY 1991 will reflect the nature and extent of such requests.

3 Attachments



REPUBLIC OF THE MARSHALL ISLANDS

MAJURO, MARSHALL ISLANDS 96960 CABLE: REPMAR

October 7, 1988

FACSIMILE NUMBER: (202)252-5051

Mr. John Rudolph
Office of Military Application, DP22.1
United States Department of Energy
Washington, D.C. 20545

Dear Mr. Rudolph:

I have the honor of responding to a proposal offered by the United States Department of Energy (DOE) for the provision of certain technical work during Fiscal Year 1990 to ameliorate the impact of the United States Nuclear Testing Program on the people of the Marshall Islands. The proposal was conveyed to the Government of the Republic of the Marshall Islands (RMI) in a meeting that took place in Honolulu on September 23, 1988. In the course of the meeting, DOE officials proposed that, for Fiscal Year 1990, RMI provide matching funding in the amount of \$1,975,000, which, when combined with equal funding from DOE, would pay for whole body counting and bioassay medical studies, environmental assessments establishing the long-range effectiveness of the preventative technologies that have been developed at Bikini Atoll, logistical support for DOE operations in the Marshall Islands, and a program of radiological education for the school children and public of the Marshall Islands. It was suggested that such funding might be derived from the annual proceeds of the RMI Nuclear Claims Fund made available pursuant to Section 1(a) of Article II of the Section 177 Agreement.

My government fully recognizes the importance of the proposed body of work. Such a program will serve to ensure the safety of citizens of RMI who, in the years ahead, choose to resettle Bikini Atoll, Rongelap Atoll, and Enjebi Island in the northern portion of Enewetak Atoll.

Nevertheless, my government is not in a position to provide the matching funding sought by the DOE. Whereas the "buy back" from DOE of technical assistance was contemplated when Section 1(a) of Article II of the Section 177 Agreement was originally negotiated, Section 103(j) of United States Public Law 99-239 subsequently required that the funding available under this section of the Section 177 Agreement be used for a health program

Mr. John Rudolph
October 7, 1988
Page 2

started by the United States Congress for the benefit of the four communities of the Marshall Islands most directly impacted by the U.S. Nuclear Testing Program. All proceeds generated from the Section 177 Fund pursuant to Section 1(a) or Article II of the Section 177 Agreement have been devoted exclusively to this health care program. Hence, my government will not be able to provide significant financial support to the technical work that the DOE plans to perform in the Marshall Islands during Fiscal Year 1990. Out of concern for the well-being of the people of Bikini, Enewetak, and Rongelap, it is our sincere hope that the United States Government will find sufficient funding for these activities until such time as these atolls have been safely resettled and monitoring of radiological health conditions is no longer necessary.

I would ask that the views expressed in this letter be conveyed to the United States Congress in the report on the Honolulu meeting.

Sincerely yours,



Oscar de Bruin
Chief Secretary

ESTIMATED FISCAL YEAR 1990 TOTAL PROGRAM REQUIREMENTS

	<u>Operating</u>	<u>Capital</u> <u>Equipment</u>	<u>Total</u>
	\$1,000		\$1,000
<u>Medical Surveillance</u> Two ship-supported missions; medical referral outside the Marshall Islands for exposed patients.			
<u>Environmental Studies</u> Sampling and analysis from Bikini, Enewetak, and other atolls as required to: refine effectiveness of remedial techniques; determine environmental effects of radionuclide movement.	\$1,600		\$1,600
<u>Radiological Monitoring</u> Perform wholebody counting; conclude sample collection and other bioassay analyses; refine track-etch analysis technique with quality assurance verification.	\$1,000		\$1,000
<u>Logistical Support</u> Continue charter of vessel capable of multi-program support; provide management of shipping, personnel transportation, and on-island support for each mission.	\$1,300		\$1,300
<u>Capital Equipment</u> Replace shipboard medical van and related ship modifications. Upgrade x-ray and other medical and laboratory equipment at Brookhaven National Laboratory and Lawrence Livermore National Laboratory.		\$100	\$100
TOTALS:	\$4,900	\$100	\$5,000

(\$000)

ESTIMATED FISCAL YEAR 1991 PROGRAM REQUIREMENTS

	Operating	Capital Equipment	Total
Medical Surveillance	\$1,000		\$1,000
Two ship-supported missions; medical referral outside the Marshall Islands for exposed patients.			
Environmental Studies	\$1,500		\$1,500
Analysis of samples from various atolls acquired previously; maintain laboratory technical capability; no field trips.			
Radio logical Monitoring	400		400
Complete sample analysis; refine plutonium analysis technique with the University of Utah; prepare reports; maintain laboratory technical capability; no new sample collection or wholebody counting.			
Logistical Support	\$1,600		\$1,600
Continue ship charter in support of medical program.			
Capital Equipment		\$4,500	\$4,500
No requirements.			
TOTALS:	\$4,500		\$4,500

(\$000)

ENERGY AND WATER DEVELOPMENT APPROPRIATIONS
BILL, 1989

MAY 11, 1988 — Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BEVILL, from the Committee on Appropriations,
submitted the following

REPORT

[To accompany H.R. 4567]

The Committee on Appropriations submits the following report in explanation of the accompanying bill making appropriations for energy and water development for the fiscal year ending September 30, 1989, and for other purposes.

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increase of \$33,508,000 compared to fiscal year 1988. Included in the recommendation are funds to initiate construction for the new

ions to Building 371 at Rocky Flats.

PROGRAM DIRECTION

Program direction is funded at \$81,400,000 or the budget request.

NUCLEAR DIRECTED ENERGY WEAPONS

The Committee recommendation for Nuclear Directed Energy Weapons is \$245,000,000 which is \$40,000,000 less than the amount of the budget request and is a decrease of \$34,000,000 from the year 1988.

INERTIAL CONFINEMENT FUSION

The Committee recommendation for Inertial Confinement Fusion (ICF) is \$163,770,000 which includes a recommendation of \$155,530,000 for operating expenses and \$8,240,000 for new equipment.

The Committee is aware of the significant progress being made on inertial confinement fusion research. This research program is occurring at a more rapid rate than anticipated. In order to continue to achieve research success in an efficient manner, the Committee supports an independent review of the ICF program and results to date. This review would be the basis for drawing recommendations for future ICF initiatives.

Based on the results included in the report provided by the Department and the University of Rochester, the Committee has included \$2,000,000 within the glass laser program for continued design engineering and development for an upgrade to the laser at the University of Rochester's Laboratory for Laser Light Ion. The upgrade of this laser to a capability of 30,000 laser pulses per second provides an opportunity to study ignition scaling, fuel-pellet formation, preheating, and hydrodynamic instabilities. Also, an upgrade in the glass laser program is \$10,900,000 for research program activities at the University of Rochester, \$16,800,000 for research program activities at the Naval Research Laboratory (NRL), and \$2,500,000 for research program activities at the Naval Research Laboratory (NRL). Within the gas laser program, \$2,500,000 is included for laser demonstration the induced spatial incoherence concept using the laser. Within the funds for capital equipment, \$700,000 is allocated for equipment at KMSR.

The allocation of operating funds for the major programs is as follows:

Class laser program	\$1,000,000
Gas laser program	\$1,000,000
Fused power experiment	\$1,000,000
Supporting Activities	\$1,000,000
Total	\$4,000,000

RECOMMENDATION SUMMARY

Details of the Committee's recommendations, current funding levels and the budget request are shown in the following table.

PLANT AND CAPITAL EQUIPMENT

Appropriation, 1988	\$1,935,899,000
Budget estimate, 1988	1,667,975,000
Recommended, 1988	1,472,975,000
Appropriation, 1989	-22,924,000
Budget estimate, 1989	+5,000,000

The appropriation recommended for Atomic Energy Defense Activities provides for seven principal programs: Weapons Activities; Nuclear Directed Energy Weapons; Inertial Confinement Fusion; Materials Production; Defense Waste and Environmental Restoration; Naval Reactors Development; and Other National Security Programs.

WEAPONS ACTIVITIES

This program provides for the research, development, engineering, testing, and production of all U.S. nuclear weapons; maintenance of reliable weapons for their stockpile life; and retirement and disposal of nuclear weapons from the stockpile.

The fiscal year 1989 recommendation will continue efforts to provide new technology to maintain a modern nuclear force, along with the design and development of new weapons systems in response to defense requirements. The budget included \$161,770,000 for Inertial Confinement Fusion (ICF) and \$285,000,000 for the Nuclear Directed Energy Weapon program. The Committee has recommended that these programs be funded as separate categories. The Committee recommendation for Weapons Activities totals \$3,813,171,000 of which \$3,164,845,000 is the Operating Expenses and \$648,326,000 is for Plant and Capital Equipment. This is \$5,000,000 more than the budget request and reflects an increase of \$43,766,000 compared to fiscal year 1988 appropriations.

Weapons Activities are comprised of the following subcategories: Research and Development, Testing Activities, Production and Surveillance, and Program Direction.

RESEARCH AND DEVELOPMENT

The Committee recommendation for Research and Development totals \$1,010,182,000 which is \$5,000,000 more than the budget request and reflects an increase of \$16,781,000 from fiscal year 1988.

TESTING

The Committee recommendation for Testing Activities totals \$460,361,000 which is the budget request and is a decrease of \$13,097,000 compared to fiscal year 1988.

The Committee recommendation includes funding at the current level to continue the health and environmental programs on all the affected atolls of the Marshall Islands. The Department is directed to prepare a report on a coordinated plan for the effort for future years, including estimated costs and sources of funding.

PRODUCTION AND SURVEILLANCE

The Committee recommendation for Production and Surveillance totals \$2,261,228,000 which is the budget request and is an

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