

# **Committee on Resources**

## **Full Committee**

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### **Testimony**

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**STATEMENT OF OSCAR DEBRUM**  
**CHAIRMAN, NUCLEAR CLAIMS TRIBUNAL**  
**REPUBLIC OF THE MARSHALL ISLANDS**  
**BEFORE**  
**THE COMMITTEE ON RESOURCES**  
**UNITED STATES HOUSE OF REPRESENTATIVES**  
**MAY 11, 1999**

Good morning, Mr. Chairman and Members of the Committee.

On behalf of my fellow Judges and the Officers and staff of the Nuclear Claims Tribunal, I would like to express our gratitude to you for conducting this oversight hearing on the status of nuclear issues in the Marshall Islands.

I am pleased to be able to share with you today the perspective of the Nuclear Claims Tribunal on a number of those issues. In doing so, I wish to note that this perspective is both unique and encompassing.

The Tribunal was established in accordance with the Agreement Between the Government of the United States and the Government of the Marshall Islands for the Implementation of Section 177 of the Compact of Free Association (177 Agreement). Section 177 of the Compact provides that "The Government of the United States accepts the responsibility for compensation owing . . . for loss or damage to property and person of the citizens of the Marshall Islands . . . resulting from the nuclear testing program which the Government of the United States conducted in the Northern Marshall Islands."

The Preamble of the 177 Agreement recognizes the "contributions and sacrifices made by the people of the Marshall Islands in regard to the Nuclear Testing Program; the authority and responsibility of the Government of the Marshall Islands to provide for the welfare of all the people of the Marshall Islands; and the expressed desire of the Government of the Marshall Islands to create and maintain, in perpetuity, a means to address past, present and future consequences of the Nuclear Testing Program, including the resolution of resultant claims."

I firmly believe that it was appropriate for there to be a separate agreement to the Compact setting forth provisions for the just and adequate settlement of all such claims and for administration of medical surveillance and treatment programs and radiological monitoring activities by the Republic of the Marshall Islands.

Under the 177 Agreement, the United States provided to the Marshall Islands the sum of \$150 million as a financial settlement for the damages caused by the nuclear testing program. That money was used to create a fund intended to generate average annual proceeds of at least \$18 million per year throughout the 15-year period of the Compact of Free Association which will end in the year 2001. For the record, I will summarize the various purposes for which the total of \$270 million in annual proceeds is to be used and make brief comments on each such purpose.

Under Article II, Section 1(a) of the 177 Agreement, \$30 million (\$2 million per year) is made available to the Government of the Marshall Islands to provide health care programs related to the consequences of the Nuclear Testing Program. I believe that it was appropriate for the Agreement to include funding for the RMI to carry out such programs. I would note, however, that while the extent of that program's capability to diagnose, treat, and implement broad preventive activities for the many serious medical conditions that have arisen has been compromised somewhat by the large number of people enrolled in it, it should be understood that by virtually any standard the program is grossly underfunded. Health care costs throughout the world have risen dramatically since the Agreement was concluded nearly 16 years ago, but the 177 Health Care Program continues to receive the same amount of funding level every year. When that funding proves inadequate, the RMI health care system must ultimately either bear the financial burden of providing treatment or of making the difficult decision to deny treatment to many patients due to inadequate resources.

Under Article II, Section 1(e), \$3 million (\$1 million per year for the first three years) was made available to the Government of the Marshall Islands for conducting medical surveillance and radiological monitoring activities. I believe that it was appropriate for the Agreement to include such funding. Unfortunately, as is often the case when this type of activity actually takes place, the results of the medical surveillance and radiological monitoring programs supported by the Section 177 funding raised more questions than they answered.

For a three-year period from 1990 to 1993, funding provided under the 177 Agreement supported a nationwide medical diagnostic program. The RMI employed licensed and experienced medical doctors of internal medicine, a pediatrician, physician's assistants, and support/translation staff to conduct physical examination and sick call clinics in every major village in every atoll in the nation. Many villages were visited on more than one occasion for clinics of up to one week duration. Although extremely limited diagnostic equipment was available to these dedicated medical professionals, nevertheless dozens of the patients that they referred to our main hospital in Majuro for further investigation were found to have a cancer or a serious thyroid condition. The cost of the additional diagnostic work and of the treatment of those conditions had to be borne by the RMI health care system.

The nationwide medical diagnostic program had to be terminated when the funding available under the 177 Agreement was exhausted. As a result of there being no such program, the RMI health care system has encountered an increasing number of patients from the outer islands who present to the hospitals in Majuro and Ebeye with such advanced cancers that no effective treatment can be provided.

Another program of medical surveillance was carried out during 1993 on Ebeye Island in the Kwajalein atoll. There, Japanese doctors and ultrasonographers contracted by the RMI Nationwide Radiological Survey conducted thyroid examinations of more than 1,300 Marshallese who had resided at various atolls within the country during the nuclear testing period. The overall results of those examinations were so astounding that the RMI government was forced to spend additional funds to replicate the program in Majuro, where 5,000 people were examined in 1994.

The findings of those studies only confirmed earlier documented conclusions that there is an extremely high incidence of thyroid diseases among people in the Marshall Islands. But with the 177 funding exhausted, the RMI had to bear the burden of providing treatment for many of the individuals whose conditions warranted medical intervention. In addition, the studies were unable to progress to their next obvious step, that of determining the primary cause of the various forms of thyroid disease in the RMI.

Nevertheless, the issue has drawn the attention of the U.S. Center for Disease Control and Prevention (CDC) in Atlanta which has received approval by the National Academy of Sciences for a protocol to be followed in carrying out a major thyroid disease study throughout the Marshall Islands. The RMI will cooperate and be a part of that study and strongly endorses the necessary funding support for it.

With regard to radiological monitoring, the RMI Nationwide Radiological Survey tested thousands of soil, plant, and marine samples collected from throughout the nation and confirmed the ongoing existence of unsafe levels of radiation at dozens of islands. Due primarily to a limited budget, however, the survey was unable to make a definitive statement about the radiological safety of many other islands and atolls.

A pressing need exists for more medical surveillance and radiological monitoring activities, yet none have been supported by the 177 Agreement during the past four years due to the exhaustion of funding.

Under Article II, Sections 2-5, varying amounts are provided to the People of Bikini, the People of Enewetak, the People of Rongelap and the People of Utrik. I believe that it was appropriate for the Agreement to provide direct funding to the people of these atolls, acknowledged as the four most affected by the nuclear testing program. As required by the Agreement, more than half of that funding has been used by the local governments of those atolls, operating as Local Distribution Authorities (LDAs), to establish trust funds which will help to provide for the needs of their people in perpetuity. The balance of that funding is used by those LDAs to make quarterly distributions to their people which help in an important but largely symbolic manner to acknowledge some of the hardships suffered by them.

Under Article II, Section 6, the Agreement provides \$7.5 million (\$500,000 per year) for the establishment and operation of the Nuclear Claims Tribunal and \$45.75 million (\$2.25 million per year for the first three years and \$3.25 million per year for the final 12 years) for payment of monetary awards made by the Tribunal. I believe that it was appropriate for the Agreement to provide that a Tribunal be established to serve as the "alternative forum" for resolution of the thousands of claims that were dismissed by the U.S. Court of Claims as a result of the 177 Agreement and the attendant espousal of those claims by the RMI.

Article IV, Section 1(a) of the 177 Agreement provides that the Tribunal "shall have jurisdiction to render final determination upon all claims past, present and future, of the Government, citizens and nationals of the Marshall Islands which are based on, arise out of, or are in any way related to the Nuclear Testing Program, and disputes arising from distributions under Articles II and III of this Agreement."

That is an extremely broad and difficult mandate. But it is one which I believe the Tribunal has addressed in a manner which properly reflects "reference to the laws of the Marshall Islands, including traditional law, to international law and . . . to the laws of the United States." [Article IV, Section 2]

It is also my belief that the work of the Tribunal, in keeping with the provisions of what is, in all reality, a solemn treaty between our two sovereign nations, has been both fair to the many claimants before it and eminently justifiable in view of the evidence that continues to emerge in regard to the damages resulting from the Nuclear Testing Program.

### The Nuclear Testing Program in the Marshall Islands

During the period from June 30, 1946, to August 18, 1958, the United States conducted 67 nuclear tests in the Marshall Islands, all of which were considered atmospheric. The most powerful of those tests was the "Bravo" shot, a 15 megaton device detonated on March 1, 1954, at Bikini atoll. That test alone was equivalent to 1,000 Hiroshima bombs.

While the Bravo test is well known, it should be acknowledged that 17 other tests in the Marshall Islands were in the megaton range and the total yield of the 67 tests was 108 megatons, the equivalent of more than 7,000 Hiroshima bombs.

For the sake of comparison, it may be noted that from 1945 to 1988, the U.S. conducted a total of 930 known nuclear tests with a combined yield estimated to be 174 megatons. Approximately 137 megatons of that total was detonated in the atmosphere. In other words, while the number of tests conducted in the Marshall Islands represents only about 14% of all U.S. tests, the yield of the tests in the Marshalls comprised nearly 80% of the atmospheric total detonated by the U.S. This is not surprising considering that 33 of the tests in the Marshall Islands had greater yields than the largest atmospheric test in Nevada.

Further evidence of the huge disparity between the testing done in the Marshall Islands and that done in Nevada was presented to officials of the Republic of the Marshall Islands and the Nuclear Claims Tribunal in July 1998 by staff from the U.S. CDC. CDC estimated that more than six billion curies of I-131 was released to the atmosphere as a result of the testing in the Marshall Islands. That amount is 42 times the approximately 150 million curies released as a result of testing at the Nevada test site. Those of you familiar with the U.S. National Cancer Institute study released in 1997 will be aware that I-131 is a radionuclide which concentrates in and may cause damage, including cancer, to the thyroid.



### The Tribunal's Approach to Personal Injury Compensation

Throughout its existence, the Tribunal has sought information and expert advice about the testing program and its effects on human health from a wide variety of sources. The Tribunal is authorized by statute to issue regulations "establishing a list of medical conditions which are irrebuttably presumed to be the result of the Nuclear Testing Program." However, numerous officials and experts with whom the Tribunal consulted during its early years advised against making any such presumption. Instead, they recommended that the Tribunal follow the precedent established by various courts in radiation-damage lawsuits by requiring proof of causation or, at a minimum, a demonstrated probability that a compensable medical condition was the result of an individual's exposure to radiation from the testing program.

But when the Tribunal attempted to obtain information from the U.S. about the levels of radiation to which people residing on the various atolls and islands had been exposed, virtually the only information forthcoming was for those whom the U.S. had admitted exposure -- the people who had been on Rongelap or Utrik on March 1, 1954.

Without reliable information about the exposure level of individuals who had been living on other atolls, there could be no proof or showing of a probability that radiation had caused the medical conditions suffered by those individuals. And without such proof, the thousands of personal injury claims pending before the Tribunal would all have to be dismissed.

In late 1990, however, the Tribunal became aware of U.S. legislation known as the "Downwinders' Act" which had been passed into law by the Congress earlier that year. In that Act, the Congress found that fallout emitted from the atmospheric nuclear tests conducted at the Nevada Test Site exposed American civilians "to radiation that is presumed to have generated an excess of cancers among those individuals." Based on that finding, the Congress established a program which provides compensation for specified diseases to U.S. civilians who were physically present in any "affected area" during the periods of atmospheric testing in Nevada (between January 1951 and October 1958 or during July 1962).

Such a presumptive approach was precisely what the Tribunal had been authorized to employ by its enabling legislation. And it clearly reflected both the need for an efficient, simple and cost-effective program and the recognition of the difficulties of individual proof of causation associated with injuries due to exposures to ionizing radiation.

The affected area defined in the U.S. Downwinders legislation includes at least 15 counties covering more than 83,000 square miles in the states of Nevada, Utah and Arizona. Places as far as 443 miles away from the Nevada Test Site are included in the affected area. Information published on the World Wide Web by the National Cancer Institute (NCI), National Institutes of Health, indicates that 104 atmospheric nuclear tests were conducted at the Nevada Test Site during the periods specified under the Downwinders Act. The total yield of those tests was approximately 1.16 megatons.

Given the fact that the total yield of the tests conducted in the Marshall Islands was approximately 93 times the total of the Nevada atmospheric tests, there was more than adequate justification for the Tribunal to presume that the affected area for its program should encompass all of the nation's atolls and islands. Attachment A shows the relative affected areas of the two programs.

The Tribunal began to implement its personal injury compensation program in August 1991. Like the U.S. Downwinders' program, the Tribunal's program involved two presumptions. First, residency in the Marshall Islands was used as the basis for assuming exposure to levels of ionizing radiation sufficient to induce one or more of the listed medical conditions. Second, the manifestation of a radiogenic medical condition is

presumed to result from (i.e. was caused by) the assumed exposure to radiation due to the testing program.

In adopting this approach, the Tribunal concluded that the failure of the U.S. to maintain contemporaneous exposure data during and after the testing period, the lack of advanced medical diagnostic services, and the absence of baseline non-radiation risk factors for people of the Marshall Islands all combined to make the "presumed list" method of assessing claims both reasonable and fair.

### Compensable Medical Conditions and Awards

The original list of compensable medical conditions established by Tribunal regulation in 1991 included 25 specific diseases (see numbers 1-25 in Attachment B). That list was based on the diseases identified in the Downwinders' program and on an assessment by the Tribunal of additional medical conditions for which there was credible evidence showing a significant statistical relationship between exposure to radiation and the subsequent development of the disease.

In making this latter determination, the Tribunal looked principally to the research findings of the ongoing Life Span Study of atomic bomb survivors conducted by the Radiation Effects Research Foundation (RERF) in Japan and to the conclusions contained in the 1990 report of the Committee on Biological Effects of Ionizing Radiation (BEIR V) of the U.S. National Research Council, National Academy of Sciences. The Tribunal was greatly assisted in reviewing and understanding those findings and conclusions by Dr. Robert Miller, an internationally-recognized expert in the area of radiation health effects and Scientist Emeritus at the NCI.

In late 1993, following a visit to RERF by a delegation from the Tribunal and a review of the most recent studies of Japanese atomic bomb survivors, two more conditions (numbers 26 and 27 in Attachment B) were added to the Tribunal's list.

Another review of the list was conducted by the Tribunal during 1995-96. Dr. Edward Radford, former Chairman of the National Academy of Sciences Committee on the Biological Effects of Ionizing Radiation (BEIR III), testified extensively about the latest RERF findings, as contained in the Radiation Research Society's 1994 report entitled Cancer Incidence in Atomic Bomb Survivors. That report presented, for the first time, comprehensive data on the incidence of solid cancer and risk estimates for A-bomb survivors in the extended Life Span Study cohort. The data is based on solid cancer diagnoses made between 1958 and 1987.

Based largely on those findings, the Tribunal's list was extended in 1996 to add seven new presumed medical conditions (numbers 28-34 in Attachment B). Based on a 1996 report from RERF entitled Studies of the Mortality of Atomic Bomb Survivors, bone cancer was added to the list in 1998.

Thus the Tribunal's personal injury compensation program now encompasses 35 medical conditions, each one of which has been adopted based on accepted scientific and medical research findings about the effects of radiation on humans or on established precedent in a U.S. program entitling American citizens to compensation for conditions presumed to result from radiation exposure.

As of April 30, 1999, net awards of compensation totaling \$67.7 million had been made by the Tribunal to or on behalf of 1,613 individuals who suffered from one or more of those conditions.

### Actual Payment of Tribunal Awards

The 177 Agreement provides that awards made by the Tribunal shall be paid on an annual pro rata basis from available funds. When the first awards were made in August and September 1991, an initial payment was made in the amount of 20%. Subsequently, annual pro rata payments were made every October as follows: 5% in 1991, 8% in 1992, 7% in 1993, 10% in 1994, and 5% in 1995.

For each new award made between October 1991 and October 1996, an initial payment was made in the amount of the accumulated percentage received by previous awardees. Thus, awards made from November 1991 to October 1992 were paid at 25%, awards from November 1992 to October 1993 were paid at 33% and so on.

By March 1996, the Tribunal had awarded more compensation than the \$45.75 million provided to it under the Section 177 Agreement for payment of awards during the 15-year period of the Compact of Free Association. Accordingly, the Tribunal was forced to reduce the pro rata annual payments in 1996, 1997 and 1998 to 2%, bringing the total cumulative payment to 61% for all awards that had been approved prior to October 1, 1996.

For awards made on or after October 1, 1996, the Tribunal established a new initial payment rate of 25% of the net total of each award. In making that determination, the Tribunal noted that anticipated new compensation awards would make it impossible to continue to make initial payments at the same cumulative rate as has been paid previously. Annual payments were made against this latter group of awards in the amount of 5% in 1997 and 10% in 1998, bringing their cumulative total payout to 40%. Awards made between October 1, 1997, and September 30, 1998, received a 25% initial payment and a 15% annual payment in October 1998 for the same cumulative total payout of 40% to date.

To summarize the actual payment status, the large majority of awards (1,274 out of 1,613) have been paid at the 61% level. Those individuals awarded compensation between October 1, 1996, and September 30, 1998 have been paid 40% of their awards.

### Claims for Damage to Property

Also pending before the Tribunal are many claims for damage to property. At both Bikini and Enewetak, several islands were vaporized by nuclear tests. Many other islands in those two atolls and in Rongelap, Rongerik, Ailingnae and Utrik were severely contaminated by radiation during the testing program. Claims for land damage in these atolls are being pursued through separate class actions. Because the above-mentioned atolls were acknowledged to have suffered the most damage and because the claims for that damage have been filed on behalf of all of the people of those atolls, they have been given priority over individual land damage claims by the Tribunal.

A major category of damage in the class action property claims is cleanup and rehabilitation of the atolls and islands involved. In connection with those claims, the Tribunal conducted formal hearings late last year toward establishing a radiation protection standard on which it will rely in considering claims for cleanup and rehabilitation of islands and atolls that remain contaminated as a result of the nuclear testing program. In December, the Tribunal issued a written decision in which it adopted the "policies and criteria" set out by the U.S. Environmental Protection Agency in its August 1997 memorandum "Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination." That document provides that "If a dose assessment is conducted at the site then 15 millirem per year (mrem/yr) effective dose equivalent (EDE) should generally be the maximum dose limit for humans."

That standard is the basis on which extensive evidence has just been presented to the Tribunal in order for it to determine the need for and cost of radiological rehabilitation of Enewetak Atoll. The same standard will also provide the basis on which the Tribunal will hear evidence relating to the need for and cost of rehabilitation for Bikini, Rongelap, Utrik, and any other atolls where such action may be warranted.

To date, no compensation has been awarded for property damage but the first such award will almost certainly be made within the next few months.

### Immediate Need

As of April 30, 1999, a total of \$67.7 million has been awarded to or on behalf of 1,613 individuals for personal injuries. Under the Section 177 Agreement, however, only \$45.75 million will be available to the Tribunal for annual pro rata payment of those awards during the 15-year period of the Compact. That leaves a shortfall of more than \$22 million, making it clear that Tribunal awardees will not receive full payment of their awards prior to the end of the Compact period unless additional money is provided.

This shortfall of funds for payment of personal injury awards that have already been made by the Tribunal is one of the main issues that I want to address in my testimony today .

Under the payment scheme implemented by the Tribunal, cumulative payments totaling 61% of each award have been made to about 1,300 people whose awards were made prior to October 1, 1996, and cumulative payments totaling 40% of each award have been made to the approximately 300 individuals whose awards have been made since that date.

The inadequacy of funds for payment of awards is made much worse by the fact that 632 (more than 39%) of the people with personal injury awards are now deceased. The estates of those individuals have been probated at the RMI High Court and the Tribunal continues to issue annual pro rata payments to the estate administrators for distribution to the heirs and beneficiaries. But a problem of increasing magnitude is that more and more administrators, heirs and beneficiaries are passing away. Each time this happens, the families of the deceased awardees are forced to return to the High Court for appointment of a new administrator or for formal amendment of the court-approved list of beneficiaries and distribution scheme. For each such proceeding, the family must attend a High Court hearing in either Majuro or Ebeye and pay well over \$100 in required filing and public notice fees. Estates where the 6-10 children of the decedent were originally named as beneficiaries may now have 30 or more beneficiaries as the grandchildren of the decedent are designated to divide their deceased parent's share of the estate. When an annual payment of 2% of an award is divided among that many people, the resulting amount per person can be less than \$10 per year.

The immediate solution from the Tribunal's point of view is to request a lump sum payment from the U.S. so that awards to decedents, and to others who are suffering from compensable medical conditions that are likely to be terminal, can be paid off in full. In order to determine what the necessary lump sum amount will be, an analysis of all awards has been completed. As detailed in Attachment C, the amount currently needed is approximately \$22.9 million. I hope that the Committee will provide guidance in how a formal request for this amount can be pursued most effectively and efficiently.

### Conclusion

There was much that was proper and appropriate in the 177 Agreement, but time and experience have demonstrated that most of the benefits provided were inadequate to meet the needs that have become clear



as more and more knowledge and understanding has emerged of the damages wrought by the testing program.

That knowledge and understanding now makes it possible to begin to see the inadequacy of the funding of the activities and programs specifically provided for in the Agreement.

The people of the Marshall Islands have as much experience living, and dying, with radioactive contamination as any other population in the world. Acknowledging that the 177 Agreement could not realistically and reasonably have foreseen all of the needs that have emerged as a result of the nuclear testing program, and taking appropriate action to remedy some of its oversights and inadequacies, is clearly warranted at this time.

Thank your for your attention.

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