



## **Benefit of the Doubt Should be Given to Atomic Vets who Have Radiation-Related Diseases**

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**PRESS RELEASE**

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#### **New National Academy of Sciences Report Fails to Clearly Recommend Compensation Even in Cases When Doses Cannot be Reasonably Estimated, Independent Expert Says**

##### **Academy Review Reveals a Multitude of Flaws in Defense Department's Radiation Dose Reconstruction for Those Who Participated in Nuclear Weapon Tests, 1945-62**

*Takoma Park, Maryland, May 8, 2003:* A report by the National Research Council of the National Academy of Sciences (NAS) released today detailed a multitude of problems with the Defense Department's estimates of radiation doses received by veterans who participated in nuclear weapons tests between 1945 and 1962. The NAS report was done pursuant to questions about the validity of the procedures used by the government in estimating radiation doses received by the veterans during their participation in the tests.

The NAS analysis shows that official estimates understate the doses, often by large factors. The Defense Department procedures suffer from quality control problems. In some cases, such as internal doses from cuts, ingestion and inhalation of radioactive materials at some tests, no reasonable estimate can be made.

"The authors have done a creditable job of laying out many of the problems in official [dose reconstruction](#) estimates" said Dr. Arjun Makhijani, president of the Institute for Energy and Environmental Research (IEER), who has published many studies on nuclear-weapon-related questions. "The report lays out a catalog of problems that would, in an arguable number of cases, prevent a reasonable upper bound dose from being calculated at all. Yet the report's bottom-line for veterans is disappointing."

The NAS report documents a number of cases of veterans who participated in Operation Crossroads, the first series of tests after World War II, where many veterans have been denied compensation because of allegedly low doses. Almost all of the veterans from that test series documented in the report were denied service connection and compensation.

"I have studied the radiological documents related to Operation Crossroads," said Dr. Makhijani, who was the principal author of a 1983 report on that test series. "The conditions after the second test in that operation were such that many veterans very likely got quite high doses of radiation, especially [beta](#)



[radiation](#) to the skin, and internal radiation from [plutonium](#) and [fission](#) products. The government cannot make reasonable estimates of [plutonium](#) doses, for instance, because there were simply no field measurements possible at the time. Nor were regular urine or other analyses done for internal exposure.”

The measurements of beta and [gamma radiation](#) that were made at Operation Crossroads indicate that some veterans doing duty comparable to others may have received doses dozens or hundreds of times larger than their colleagues. Many ate contaminated food and showered in contaminated water. Some swam in radioactive Bikini lagoon, where they were irradiated with high energy [beta radiation](#) that would irradiate their lymph nodes and compromise their immune systems. Sailors and soldiers scrubbed highly contaminated decks and slept and ate there.

The NAS report’s authors opined at a press conference in Washington, D.C. today that even if doses were far higher than those estimated by the government, they would be low compared to those received by the survivors of Hiroshima and Nagasaki. “That is an assertion that is far too sweeping to be supportable by the Committee’s own analysis,” said Dr. Makhijani. “I believe the report, based on the data and analysis contained in it, should at the very least have recommended that, in cases such as Operation Crossroads, the benefit of the doubt should be given to all veterans who get any of the radiogenic diseases specified in the regulations.”

The report makes a declarative statement that “There is an extensive amount of information from radiation studies in humans which indicates that ionizing radiation is not a potent cause of cancer.”

This is a surprising statement and not a scientifically sound one, according to the Institute for Energy and Environmental Research, especially given that no point of comparison is provided. If the point of comparison is chemicals, there are many radionuclides that are far more dangers than common carcinogenic chemicals, per unit of weight. If the point of comparison is the doses received by Hiroshima/Nagasaki survivors, then many veteran doses may be quite comparable to those of many Hiroshima/Nagasaki survivors if the present estimates are adjusted upwards by factors of ten, twenty, or a hundred. All of these are plausible degrees of underestimates, depending on the specific situation.

Contamination and danger of exposure at Operation Crossroads was very severe. A 1947 Pentagon task force used the lessons from the irregular fallout patterns to suggest that the spread of [radioactivity](#) from underwater explosions might be used to terrorize adversaries after the nuclear blast had done its damage:

“We can form no adequate mental picture of the multiple disasters that would befall a modern city, blasted by one or more bombs and enveloped by radioactive mists. Of the survivors in the contaminated areas, some would be doomed by radiation sickness in hours, some in days, some in years . . . . Added to every terror of the moment, thousands would be stricken with a fear of death and the uncertainty of the time of its arrival.”

“If the Pentagon thought the contamination was so unpredictable and severe that they might be able to terrorize the population of an adversary using similar contamination, it’s mysterious why they have not yet made that clear to the sailors and soldiers who helped carry out the tests,” said Dr. Makhijani. “In the case of Crossroads, which involved nearly 20 percent of all atomic veterans, and any other tests that created similar radiological effects, it is well past the time when atomic veterans should have been given



compensation and service-connected status for all radiogenic diseases, without ifs, ands, or buts.”

The NAS report, A Review of the Dose Reconstruction Program of the Defense Threat Reduction Agency, is available online at <http://books.nap.edu/books/0309089026/html/>

The [report on Operation Crossroads](#) is on the website of the Institute for Energy and Environmental Research.