



Nuclear Weapons and Social Justice

The nuclear weapons complex has a long history of exploiting minority and low-income populations, from production to deployment. The legacy of this exploitation is still felt today, and speaks to yet another reason we should work to eliminate these weapons of mass destruction.

Uranium Mining

- Uranium mining for weapons production in all nuclear weapon states often occurred outside of those countries, especially in colonized countries, and in minority areas.
- In the United States, this occurred in the Navajo Nation and on other Native American land in the Southwestern US, where roughly 4 million tons of uranium was extracted, mostly used for the development of nuclear weapons.
- Workers were paid very low wages, often below the legal minimum wage, and were not told of the extreme potential harms to health despite definitive scientific knowledge of these harms.
- Not understanding the risks, some workers took contaminated materials from mines back to their homes and families. Mining in this region began in 1948, but the Radiation Exposure Compensation Act was not passed in the United States until 1990.
- It is estimated that over 1000 miners have died from exposure to radiation from uranium mining in the US alone.

Nuclear Weapons Production and Clean-Up

- Over 500,000 workers in US weapons complex sites were exposed to radiation or harmful chemicals during the Cold War.
- Many workers at nuclear weapons sites were not told what they were producing until the bombs were used in Japan. Workers were also not told about health-related events until the government was forced to in 1980.
- To this day, workers at existing production sites and clean-up sites are subject to dangerous conditions.
- Despite this, compensation programs have been largely inadequate: of the 104,000 people who have sought help from a federal compensation program from work at nuclear weapons facilities, only 21% have received compensation. 60% have been denied, and many simply wait years for an answer.
- Black workers and poor white workers were often given the worst jobs at production plants, where there was a higher risk of radiation exposure, and were not told of the risks. Today, there are fewer advocates for these workers, making it harder for them to receive compensation.



WASHINGTON
PHYSICIANS
FOR SOCIAL
RESPONSIBILITY

4500 9th Ave NE, Suite 92, Seattle, WA 98105 206.547.2630 www.wpsr.org

Nuclear Weapons Testing and Radiation Experiments on Humans



Nuclear Weapons Testing

- As with uranium mining, nuclear weapons testing was often done in areas with minority populations or in colonized countries. The United States tested weapons in the Marshall Islands and in the Southwestern US, including on territory held by the West Shoshone tribe.
- The US conducted over 200 tests in the atmosphere, 67 of which were done in the Marshall Islands during the Cold War. Though the US relocated hundreds of inhabitants from their homes in the Marshall Islands, nuclear weapons testing still led to contamination of inhabited areas and exposure to dangerous and near-lethal levels of radiation and radioactive fallout.
- The populations of these islands suffered malnutrition and sometimes starvation when they were relocated to different islands, as well as birth defects, tumors, and other diseases in areas where they were exposed to radiation. Some islands, such as the Bikini Atoll, are still deemed too radioactive for habitation.
- Though it's challenging to estimate casualties, various studies estimate that anywhere from 200,000 to 2.4 million people will die of cancer from radioactive fallout from atmospheric nuclear weapons tests.

Radiation Experiments on Humans

- Between the early 1940's and the early 1970's, extensive radiation experimentation on humans was carried out by the Department of Energy, the Department of Defense, many universities, and other institutions in the nuclear industry. Subjects were exposed to radiation despite scientific knowledge of the harmful effects to health.
- Testing was often done on vulnerable or powerless populations, including prisoners, pregnant women, children, people of color, and poor communities.
- In many cases, there was no informed consent and subjects were not aware that they were being exposed to radiation.

References:

- Atherton, K.D. (2016, June 6). Bikini Atoll Likely Still Too Radioactive for Resettlement. *Popular Science*. Retrieved from <http://www.popsci.com/bikini-atoll-likely-still-too-radioactive-for-resettlement>
- Brown, A. (2014, Mar 4). No Promised Land: The Shared Legacy of the Castle Bravo Nuclear Test. *Arms Control Association*. Retrieved from https://www.armscontrol.org/act/2013_03/No-Promised-Land-The-Shared-Legacy-of-the-Castle-Bravo-Nuclear-Test%20
- Brugge, D., Benally, T., & Yazzie-Lewis, E. (2001) Uranium Mining on Navajo Indian Land. *Cultural Survival*. Retrieved from <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/united-states/uranium-mining-navajo-indian-land>
- Chandler, M.A., & Warrick, J. (2007, May 12). Thousands of Nuclear Arms Workers See Cancer Claims Denied or Delayed. *Washington Post*. Retrieved from http://www.washingtonpost.com/wp-dyn/content/article/2007/05/11/AR2007051102277_3.html
- Frosch, D. (2009, July 26). Uranium Contamination Haunts Navajo Country. *New York Times*. Retrieved from http://www.nytimes.com/2009/07/27/us/27navajo.html?_r=0
- Geranos, N. (2016, July 23). Washington attorney general seeks immediate help for Hanford workers. *Associated Press*. Retrieved from <http://www.seattletimes.com/seattle-news/washington-attorney-general-seeks-immediate-help-for-hanford-workers/>
- Makhijani, A. (2008). A Readiness to Harm: The Health Effects of Nuclear Weapons Complexes. *Arms Control Association*. Retrieved from https://www.armscontrol.org/act/2005_07-08/Makhijani
- Makhijani, A., and Kennedy, E. (1994). Human Radiation Experiments in the United States. *Science for Democratic Action*. 3(1), 1-5. Retrieved from <http://ieer.org/wp-content/uploads/2012/02/3-1.pdf>
- Physicians for Social Responsibility. (n.d.) *Hanford History*. Retrieved from <http://www.psr.org/chapters/washington/hanford/hanford-history.html?referrer=https://www.google.com/>

Image Citation:

Alberto Otero Garcia, Barcelona, Spain. Pictured: Kakadu National Park uranium mining Controlled Area