

PLUTONIUM AND PEOPLE DON'T MIX
THE CRISIS OF ROCKY FLATS,
COLORADO'S DEFUNCT NUCLEAR BOMB PLANT

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Facts by our side are never sudden
Until they look around
And then they scare us like a spectre
Protruding from the ground

-- Emily Dickenson

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GLOSSARY

AEC

Bq

CDH

CDPHE

CERCLA

EPA

FACA

pCi/g

Pu

RCRA

RFCA

PERSPECTIVE

When I arrived in Colorado in 1974 to teach at the University of Denver I had never heard of the Rocky Flats nuclear bomb plant near Denver. But I was concerned about nuclear weapons. I had been teaching at graduate and undergraduate levels for a decade. Since about 1970 I had alerted students to the fact that the human presence on this planet could end soon due to three threats of our own making: 1) nuclear holocaust, 2) ecological disaster, and 3) authoritarian governance. Any one of these could end our time on this planet. I hoped that students aware of these threats could do something about them. I often told them: “This is your homework – for the rest of your life. If the human race is to survive, we’ll have to change our ways. You can help this happen.”

I had been in Denver several years when in 1978 a small group of people who opposed nuclear weapons sat on the railway tracks leading in to the Rocky Flats plant. They caught my attention. I realized that Rocky Flats epitomized in a concentrated way all three of the fundamental threats to which I was alerting students, and its product was the extremity of violence, while those on the tracks were committed to nonviolence, as was I.¹ Soon I left the academic world and joined those on the tracks. The blockade lasted from April 1978 until April 1979 – “a year of disobedience.”² I believe it is the longest sustained nonviolent civil disobedience in U.S. history. When those on the tracks were arrested and removed, they were quickly replaced by others, sometimes by people new to the occupation. When I was on the tracks, I was arrested and put on trial in federal court. This was an eye-opening experience in itself on how injustice trumps justice.³

Having left the academic for the activist world, I quickly learned more about the global threat of the bombs made at Rocky Flats and the local hazard of radioactive plutonium released into the environment from this facility. And I gained increased awareness that making these bombs requires a secretive, centralized, authoritarian command structure that undermines democracy across the board. The Manhattan Project that designed and built the bombs used against Japan in 1945 was totally secret. It established a pattern of invoking a veil of security to hide details about harm to people and the environment. This pattern prevailed afterward in all aspects of the nuclear weapons enterprise. Getting reliable information on matters like radiation releases has been difficult to impossible. When production ended at Rocky Flats after the FBI raided the plant in 1989, evidence of law-breaking gathered by the FBI was sealed by court order, so it was not available to the public or elected officials. Standards for permissible exposure to radiation for plant workers and the public were set with no participation of those likely to be exposed. As will be shown in the text, though the period of the Superfund “cleanup” of the contaminated site had more public participation than any other time, major “cleanup” decisions were made behind closed doors. This pattern of secrecy has not ended.

Production of nuclear weapons began at Rocky Flats in 1952. For thirty-seven years it was the only plant in the country producing the fissile plutonium bomb cores for the U.S. arsenal. But the plant also created *a tradition of risk* for people in the area – about which some learned only gradually. The risk did not end with the termination of production. Next came what the Department of Energy (DOE) called the “risk-based cleanup” of the site. It lasted 15 years and at completion left a legacy of risk in the form of an unknown quantity of highly toxic radioactive plutonium in the environment.

¹ See APPENDIX A, Gift of Nonviolence.

² Joseph Daniel et al., *A Year of Disobedience* (Boulder: Daniel Publications, 1979); Daniel et al., *A Year of Disobedience and a Criticality of Conscience* (Boulder: Story Arts Media, 2013).

³ See APPENDIX B, for a brief account of my revealing experience in court.

Denver-area people inherited the crisis of a local hazard forever. Crisis is danger. But it can also be a turning point, a change for the better. This work explores both aspects of the Rocky Flats crisis, the danger and the opportunity.

After learning about Rocky Flats in 1978, I joined others seeking a permanent halt to bomb- building at the plant, a goal achieved in 1992 when the plant's mission changed from production to cleanup. Then for fifteen years I served on oversight and advisory bodies focused on the Superfund "cleanup" of the Rocky Flats site. When the "cleanup" was done the Department of Energy (DOE) transferred about three-fourths of the 10 square-mile site to U.S. Fish & Wildlife Service to run as a national wildlife refuge, while it retained for its Legacy Management program 2.1 square miles in the central more contaminated part of the site.

For four years beginning in 2000 I had the unusual fortune of being a member of two committees of the National Council on Radiation Protection and Measurements (NCRP), the principal U.S. body that researches radiation health effects and makes recommendations regarding standards for permissible exposure. This gave me a close look at the little-known world of those who decide how much radiation exposure the rest of us may legally experience. And in the first decade of the 21st century for three years I served on the board of the Alliance for Nuclear Accountability, a national network of grassroots groups located near nuclear weapons facilities across the country. I am not a technical specialist; everything that I know about Rocky Flats and the nuclear weapons enterprise I have learned with the help of others. What is presented here draws on this experience.

It is not widely known that a few of the Manhattan Project scientists who created the first atomic bombs opposed using them on a human population because doing so would commit the war crime of killing innocent people indiscriminately. These scientists lobbied unsuccessfully for these weapons to be demonstrated over the ocean rather than dropped on a living city. Further, after the bombs were actually used at Hiroshima and Nagasaki, they called for nuclear weapons to be outlawed, with the material used to make them controlled by a non-government body. They realized that in a nuclear war there could be no winners, only losers, because these weapons threaten both a global nuclear holocaust and an environmental calamity from which recovery would be impossible. Convinced that nuclear weapons had made war obsolete, they called themselves "nuclear pacifists" – total opponents of war. Continued production of nuclear weapons cannot be justified. I agree with these original nuclear pacifists. Nuclear weapons must be abolished. They are illegal and immoral. Made by humans, they can be unmade by humans.

At its founding, the U.S.A. presented a democratic hope to the world. This would necessitate openness in governance and a promise to overcome exclusion. But, as stated earlier, the Bomb is an enemy of democracy. One of the government's first acts after creation of the Manhattan Project in 1942 was to assume "total control over the mining, milling, refining, and use of uranium,"⁴ a material essential for nuclear bombs. In the same year physician William C. Hueper, head of the environmental cancer section of the National Cancer Institute, was blocked by superiors from publishing information about dangers of mining uranium because "it was not in the public interest."⁵ After World War II, in the case of Rocky Flats, "Colorado's top elected officials were not informed that the plant would be built until the decision had already been made."⁶ The U.S. commitment to nuclear weapons

⁴ Robert Alvarez, "Uranium Mining and the U.S. Nuclear Weapons Program" (2013) <http://blogs.fas.org/pir/2013/11/uranium-mining-u-s-nuclear-weapons-probram/>

⁵ Ibid.

⁶ Howard Holme, *Pre-Trial Statement*, Good vs. Church, Church vs. Dow and Rockwell (Civil

has undermined our democracy. How we deal with the nuclear issue will reveal our character as a people.

Unacknowledged victims of lethal contaminants released from Rocky Flats live near the site as well as in areas some distance away (see chapter 10). Also unacknowledged are the many that allow such harm to happen. This includes both passive citizens and officials who whitewash the truth about harm to the public. Some of these officials realize that decades of radioactive releases have caused serious damage. But they remain silent and instead speak of “safe levels” of radiation exposure and assure us that there is “no immediate danger.” Among officials from the DOE, the EPA and the Colorado Department of Public Health and Environment, fidelity to the party line trumps truth, a point that will be repeatedly referred to in the following pages.

In the past, some supported our nation’s nuclear weapons enterprise, in part because of the belief that we needed the Bomb to defeat the Communists, in part to reinforce Rocky Flats as the biggest local employer, and in part because of the mantra that a government industry would never do harm. We may then have been ignorant of the well-established science that any dose of ionizing radiation can cause harm.⁷ Proclamations about safe levels of risk are based on official standards whose premise is that low-dose exposures are acceptable. If such assertions are repeated enough, people doubt their own misgivings. The official line prevails, and, at Rocky Flats and elsewhere in the nuclear weapons complex, no actual studies of human health need be undertaken.

Most people do not mean to give themselves over to a deleterious system. Yet those who set standards for permissible exposure, who regulate the industry, who vote in Congress to sustain the nuclear weapons enterprise, or who design and implement the “cleanup” of contaminated sites like Rocky Flats – all these people urge populations to agree that it’s acceptable to live in places of questionable safety. Rocky Flats is a striking example of what social theorist Ulrich Beck called a “risk society,” a modern form of human organization that makes harm inescapable. Standards for permissible exposure to toxins “may indeed prevent the very worst from happening, but they are at the same time ‘blank checks’ to poison nature and humankind *a bit*” – all in the name of safety, security and economy. In Beck’s memorable words, “Whoever limits pollution has *also concurred* in it.”⁸

It is crucially important to have a critical history of the Rocky Flats site. All of us, especially those new to the area, need to know this history, not because of the past but because of the future. Familiarity with the story will enable us to understand that contamination rooted in policies and practices of a bygone day is still very much with us. There is a tradition of risk, all encompassing risk, that is inescapable. If you live here for a period and are exposed probably without your knowledge to toxins in the Rocky Flats environment, even if you move far away, the tradition of risk will go with you. It may affect you personally, or it may show up in your offspring.

The first two chapters of this work deal with background information on radiation health effects and the unusual danger of plutonium, the primary material used in bomb-

Actions Nos. 75-M-1111, 75-M-1162, 75-M-1296), U.S. District Court for the District of Colorado, 1978, p. 8.

⁷ Categorically affirmed by the National Academy of Sciences, *Health Risks from Exposure to Low Levels of Ionizing Radiation, BEIR VII* (Biological Effects of Ionizing Radiation), (Washington: National Research Council, 2006). Hereafter referred to as BEIR VII.

⁸ Ulrich Beck, *Risk Society: Towards a New Modernity*, translated by Mark Ritter (London: Sage Publications, 1992), p. 64.

making at the plant and the contaminant of principal concern. The very brief third chapter explains that those who picked Rocky Flats as the location for a nuclear bomb plant made a fatal mistake. Chapter 4 deals with the period of public ignorance about Rocky Flats, when the most dangerous fires and accidents occurred at the plant without public knowledge. The dawning of public awareness and the rapid rise of resistance to plant operations is examined in chapter 5. Chapter 6 covers the brief period from the 1989 FBI raid on Rocky Flats to collect evidence of environmental law-breaking at the plant to the 1992 change of the plant's mission from production to cleanup. The compromised "cleanup" is covered in chapter 7. Issues of the Rocky Flats National Wildlife Refuge and the Department of Energy's retention of the more contaminated central area of the site are dealt with in chapters 8 and 9. Chapter 10 discusses environmental and public health conditions that give the living a permanent responsibility to future generations; it explores how Nuclear Guardianship enables people to fulfill this responsibility. All looks to the future.

Spokespersons for the government agencies responsible for the inadequate "cleanup" at Rocky Flats regard their work as a model for "cleanup" at other DOE sites, even though Rocky Flats was not cleaned to the maximum extent possible using current technology. It was "cleaned" instead to the level required by law. Those who did the "cleanup" knew they were leaving an uncertain amount of plutonium in the environment on the site. According to the official way of assessing harm, the risk is small. They expect people in the area to accept contaminants left in the soil without complaint. When they say there is no longer any reason to be concerned about the site, they foster denial. Denial is encouraged. It makes risk tolerable. This work is intended to awaken people, to end their denial, to make them aware. Only a people who are aware and informed can protect themselves and others from exposure to toxins in the environment, The stakes are high. Again, all looks to the future.