

September 13, 2018

## An Open Letter to the Public About the Rocky Flats National Wildlife Refuge From Concerned Citizens and Public Health Advocates in the Region

Dear Friends and Neighbors,

Since the United States Fish and Wildlife Service has announced plans to open the Rocky Flats National Wildlife Refuge to the public on September 15<sup>th</sup>, it is imperative that you understand the following information concerning the history and current condition of the land comprising the Refuge.

We, the community behind this letter, have no financial stake in the Refuge opening or staying closed. We are merely citizens of the region, concerned about contamination from the former Rocky Flats Nuclear Weapons Plant, and the consequences of that contamination on public health. We are advocates for the protection of public health from Rocky Flats contamination, which is why we are compelled to write and publish this letter.



The land comprising the Refuge was formerly part of the “buffer zone” around the Nuclear Weapons Plant. It is still contaminated with plutonium to levels representing ***hundreds of times background radiation***, a fact that is not disputed (see for example p.7 of this 2013 government [presentation](#)<sup>1</sup> - the 10 pCi/g plutonium isopleth represents 512x background radiation).

The Refuge land was ***not remediated at all*** in the Rocky Flats cleanup project of 1996-2005. That project only cleaned up the “Central Operable Unit” (roughly, the former Industrial Area of the Plant), whereas the Refuge land is in the separate “Peripheral Operable Unit” (roughly, the former buffer zone around the Industrial Area). Thus the Rocky Flats cleanup project is completely irrelevant to the current condition of the Refuge land – the project did not clean up the Refuge.

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<sup>1</sup> <http://rockyflatssc.org/OU3-RFSC-4Feb13.pdf>

The Colorado Department of Health gave [notice](#)<sup>2</sup> in 1973 that “the surface of the soil in an area of approximately fifty (50) square miles surrounding the Dow Chemical Rocky Flats Plant in Jefferson County, Colorado is contaminated with plutonium in varying degrees of concentration” and announced an interim plutonium soil contamination standard: “Contamination of the soil in excess of two-tenths (0.2) disintegration per minute of Plutonium per gram of dry soil presents a significant hazard to the public health to render the land **unfit for residential use**, subdivision development, or commercial and industrial uses.” This standard was soon upped to 2.0 dpm/g – 46x background - to match existing levels of contamination outside the Plant boundaries at the time (i.e. in what is now the Refuge area).

The Colorado Department of Health further [stated](#)<sup>3</sup> in 1979 that “Industrial development would be more appropriate than residential zoning around the plant because of part-time occupancy, no children present” and recommended “industrial development, agricultural zoning or ‘open space’ within this area [bounded by Simms Street, Highway 128, Highway 93, and Highway 72] except for residential development already built or platted.”

Thus the Colorado Department of Health, under two different Executive Directors, twice in a decade deemed the land around the Rocky Flats Nuclear Weapons Plant – including, at the time, the land that is now the Refuge - unfit for residential use.

The Church family, whose ranchland was appropriated by the US Government to build the Nuclear Weapons Plant, applied in 1974 to rezone some of their remaining land in what is now the Refuge for residential development. Jefferson County Public Health Director Dr. Carl Johnson opposed the rezoning due to contamination and the rezoning was denied, which caused the Church family to sue the US Government for contaminating their land. Dr. Johnson relates these events in his own words in a [letter](#)<sup>4</sup> to his next employer.

The Church lawsuit was settled before trial with a sealed [agreement](#)<sup>5</sup> involving Plant operator Rockwell International, and Jefferson County and the State of Colorado, among other parties. The provisions of the agreement enabled **development by fiat**: the Church family was obligated to refer contamination inquiries by prospective

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<sup>2</sup> <https://rockyflatsambushedgrandjury.com/wp-content/uploads/19730124-CDH-Roy-L-Cleere-Interim-Pu-Soil-Std.pdf>

<sup>3</sup> <https://rockyflatsambushedgrandjury.com/wp-content/uploads/19790412-CDH-Frank-Traylor-Development-Memo.pdf>

<sup>4</sup> <https://rockyflatsambushedgrandjury.com/wp-content/uploads/19850930-Carl-Johnson-letter-to-Kitty-Kinsman.pdf>

<sup>5</sup> <https://rockyflatsambushedgrandjury.com/wp-content/uploads/19841214-McKay-v-Ackard-75-M-1162-EIN.pdf>

land buyers to Rockwell; Rockwell was obligated to disclose to prospective buyers that the risks from contamination could be disregarded in consideration to land use; the State and County were obligated to not limit development of the Church's land and to not deny rezoning requests from the Church family; and the State was obligated to certify the Church family's land as within State standards for plutonium contamination. These obligations ultimately allowed the Candelas neighborhood to be developed on soil whose contamination is allowed to be arbitrarily high.

These historical facts, documented in first-hand government sources linked above, demonstrate that land still contaminated to hundreds of times background radiation, and considered unfit for residential development by County and State agencies, is what now comprises the Refuge. To recreate on that land is to play Russian roulette with your future health.

The risk is inhalation of micron-sized plutonium oxide dust particles, each of which may contain trillions of plutonium atoms, enough to yield a decay rate in your body of one or more alpha emissions per second for the rest of your life. Dr. Michael Ketterer recently testified as to this risk in a court hearing, beginning on p.61 of the [transcript](#).<sup>6</sup> These emissions can damage cells and alter genes, leading to cancers and birth defects according to the Agency for Toxic Substances and Disease Registry's Toxicological [Profile](#)<sup>7</sup> for Plutonium (e.g. section D.4.3 on p.D-9).

Wes McKinley, the Foreman of Special Grand Jury 89-2, which was empaneled to weigh evidence uncovered in the 1989 FBI raid of the Rocky Flats Plant for environmental crimes, subsequently became a Colorado Representative precisely because he was concerned about the safety of the Refuge, given what he knew from his experience on that grand jury. He sponsored Colorado House Bill [09-1060](#)<sup>8</sup>, which would have placed signage at the Refuge saying the following:

ROCKY FLATS NATIONAL WILDLIFE REFUGE WAS A NUCLEAR WEAPONS MANUFACTURING PLANT FROM 1950-1991. DURING THAT TIME, THE UNITED STATES DEPARTMENT OF ENERGY (DOE) AND ITS CONTRACTORS BURIED, BURNED, AND SPRAYED PLUTONIUM AND OTHER RADIOACTIVE AND HAZARDOUS MATERIALS ON-SITE AT ROCKY FLATS. SOME OF THESE ACTIONS WERE LEGAL, OTHERS ILLEGAL.

SINCE 1992, THE DOE HAS UNDERTAKEN CLEANUP OF THE SITE. THE DOE, THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA), AND THE STATE OF COLORADO ACKNOWLEDGE THAT, AFTER THE CLEANUP IS COMPLETE, DETECTABLE LEVELS OF PLUTONIUM AND OTHER

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<sup>6</sup> <https://rockyflatsambushedgrandjury.com/wp-content/uploads/18july17pirf.pdf>

<sup>7</sup> <https://www.atsdr.cdc.gov/toxprofiles/tp143.pdf>

<sup>8</sup> [http://www.statebillinfo.com/bills/bills/09/1060\\_01.pdf](http://www.statebillinfo.com/bills/bills/09/1060_01.pdf)

RADIOACTIVE AND HAZARDOUS MATERIALS WILL REMAIN IN THE SURFACE AND SUBSURFACE SOILS AND IN THE GROUNDWATER, AND MAY BE PRESENT IN DUST THAT BECOMES AIRBORNE AT THE SITE. PERSONS ACCESSING ROCKY FLATS NATIONAL WILDLIFE REFUGE MAY BECOME EXPOSED TO RADIOACTIVE AND OTHER HAZARDOUS MATERIALS THROUGH DUST IN THE AIR OR THROUGH CONTACT WITH THE SOILS. THE RADIOACTIVE AND HAZARDOUS MATERIALS ARE INVISIBLE TO THE NAKED EYE AND MAY BE CARRIED HOME IN DIRT ON SHOES AND BELONGINGS. PLUTONIUM REMAINS RADIOACTIVE FOR TENS OF THOUSANDS OF YEARS, AND IT CAN BE HARMFUL IN VERY SMALL AMOUNTS IF INHALED, INGESTED, OR OTHERWISE TAKEN INTO THE BODY, SUCH AS THROUGH AN OPEN WOUND.

THERE IS CONTROVERSY WITHIN THE SCIENTIFIC COMMUNITY CONCERNING ACCEPTABLE LEVELS OF RISK FROM SUCH EXPOSURE AND THE METHODS OF CALCULATING THAT RISK, AND THERE IS CONSIDERABLE SCIENTIFIC UNCERTAINTY ASSOCIATED WITH THESE ISSUES.

ACCORDING TO NATIONAL AND INTERNATIONAL STANDARD-SETTING BODIES, THERE IS NO SAFE LEVEL OF HUMAN EXPOSURE TO PLUTONIUM OR OTHER MATERIALS THAT PRODUCE IONIZING RADIATION. CANCER AND GENETIC DEFECTS ARE KNOWN EFFECTS OF EXPOSURE TO LOW LEVELS OF IONIZING RADIATION. CHILDREN AND THE ALREADY INFIRM ARE THE MOST AT RISK FROM LOW LEVELS OF IONIZING RADIATION.

THE EPA AND THE STATE OF COLORADO, USING MATHEMATICAL MODELING, HAVE DETERMINED THAT CLEANUP OF WHAT IS NOW THE ROCKY FLATS NATIONAL WILDLIFE REFUGE HAS MADE THE REFUGE SAFE FOR VISITORS AND WILDLIFE REFUGE WORKERS. THESE AGENCIES HAVE ALSO DETERMINED THAT THE CLEANUP COMPLIES WITH THE WRITTEN AGREEMENT BETWEEN THE EPA, THE DOE, AND THE STATE.

IN LIGHT OF THE SCIENTIFIC UNCERTAINTIES AND THE CONTROVERSIES ABOUT RISK, MEMBERS OF THE PUBLIC CONSIDERING A VISIT TO ROCKY FLATS NATIONAL WILDLIFE REFUGE SHOULD DECIDE FOR THEMSELVES WHETHER THE RISKS ARE ACCEPTABLE TO THEM AND THEIR FAMILIES.

Unfortunately Mr. McKinley's proposed legislation did not pass. Unbelievably, Carl Spreng of the Colorado Department of Public Health and Environment actually testified against the proposed legislation, even though CDPHE's mission is to protect the health of Colorado's people. But 37-year Rocky Flats senior radiation control technician and three-term steelworkers' union president Jerry Harden testified in favor of the bill.

How great is the risk? That is the big question. The following photo of a dust devil on the Refuge was taken July 4<sup>th</sup>, 2018 looking northwest from 86<sup>th</sup> Avenue and Simms Street. Winds of less than 25mph were sufficient to cause those dust clouds. Do you want to bet your future health on the assumption that the Colorado Department of Public Health and Environment's risk models account for a Refuge visitor breathing dust-laden air like that?

So, what can you do? First, for the sake of your own health, don't visit the Refuge! Second, share this letter with everyone you care about. Third, contact your elected officials expressing your concern over the public health risk of opening the Refuge. Ask them to support informed consent signage, at the very least. Finally, join the community of concerned citizens and public health advocates. Visit <https://www.rockyflatsrighttoknow.org> for more information, or follow Rocky Flats Right To Know on social media.

Sincerely,  
Concerned Citizens and  
Public Health Advocates  
in the Region

