

## Burn the Prairie at Rocky Flats? By LeRoy Moore

U.S. Fish & Wildlife Service (FWS), the agency that manages the Rocky Flats National Wildlife Refuge, plans a controlled burn of 701 acres of Refuge land in the spring of 2015. This plan should be canceled.

In April 2000 a 50-acre “test burn” was done with approval of the Department of Energy (DOE) in the buffer zone of the now closed Rocky Flats nuclear bomb plant. The original plan was to burn 500 acres. It was reduced to 50 acres due to public opposition. This “test burn” was a serious mistake, because the fire produced dense clouds of radioactive smoke that swept rapidly across the area, from the mountains on the west to Thornton and Denver on the east.

Federal and state agencies said there was no significant radiation release. But Paula Elofson-Gardine with a Radalert Geiger counter detected airborne radiation ranging from 600 to 1,300 times average background for radiation in the Denver area. Government agencies were asked to analyze ash from the fire to determine its contents, but they refused. So no official record exists.

Probably the smoke contained plutonium-239, the radioactive contaminant of greatest concern at Rocky Flats. During production from 1952 till 1989, in fires, accidents and routine operations the plant released plutonium particles too small to see but not too small to do harm. Biologist Harvey Nichols concluded in the 1970s that billions of such particles were dusted on the ten square-mile Rocky Flats site. Scientists from the Atomic Energy Commission (predecessor to the DOE) found plutonium in soil across the metro area to the far side of Denver.

The Superfund “cleanup” at Rocky Flats Superfund dealt only with the plant site. There was no effort to remove from the environment as much plutonium as possible with existing technology. An unknown quantity was left behind. In the plant’s buffer zone – land that is now the Wildlife Refuge – those doing the “cleanup” estimated the amount of plutonium by shallow samples in surface soil. But much plutonium on this land had percolated down to deeper levels. Most of it should still be there. With a half-life of 24,110 years, it remains radioactive for a quarter-million years.

Plutonium is harmful only if it is taken into the body. For as long as it is lodged within – likely for the rest of one’s life – it bombards surrounding tissue with radiation. The result two or three decades later may be cancer, a damaged immune system or genetic harm.

In 1997 researchers at Columbia University showed that a single particle of plutonium within the body could induce cell mutations that can lead to cancer. In 2004 a British study concluded that cancer risk from very low-doses of

plutonium may be 10 times more dangerous than allowed for by existing standards, such as those used to guide the Rocky Flats “cleanup.”

The history of Rocky Flats is plagued by the fateful link between tiny plutonium particles and a fierce wind. Manufacturing operations that released plutonium have ended. But much plutonium remains in the environment. An eleven-year study at DOE’s Savannah River Site in South Carolina found that grass routinely brings measurable quantities of plutonium to the surface. Any burn, thus, will release plutonium particles.

FWS manages refuges for wildlife on federal land. The land it received at Rocky Flats unfortunately is radioactive. And it’s plagued by invasive plants that drive out native vegetation, including rare xeric tall-grass. FWS plans to deal with this problem by burning grass in the southern portion of the Refuge near the Candelas and Whisper Creek residential developments. The proposed burn, if it happens, could expose residents of these areas to plutonium.

In conclusion, please go to [http://petitions.moveon.org/sign/cancel-the-prescribed?source=c.em.mt&r\\_by=364519](http://petitions.moveon.org/sign/cancel-the-prescribed?source=c.em.mt&r_by=364519) and sign the petition urging FWS to cancel the planned burn. Second, I invite FWS personnel to meet with a small group from the Rocky Flats Nuclear Guardianship project to discuss what to do regarding invasive plants at the Refuge.

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LeRoy Moore, PhD, is a consultant with the Rocky Mountain Peace & Justice Center. For more on Nuclear Guardianship, see [www.rockyflatsnuclearguardianship.org](http://www.rockyflatsnuclearguardianship.org) . For Paula Elofson-Gardine’s account of the “test burn” done at Rocky Flats in 2000, see <http://www.mindfully.org/Nucs/Prescribed-Burns-Danger-EIN.htm> .