

**TESTIMONY TO AGRICULTURE, LIVESTOCK & NATURAL RESOURCES
COMMITTEE OF THE COLORADO HOUSE OF REPRESENTATIVES,
SUPPORTING REPRESENTATIVE WES MCKINLEY'S HB09 1060, SIGNAGE
AT ROCKY FLATS NATIONAL WILDLIFE REFUGE, 01/21/2009.**

BY PROFESSOR HARVEY NICHOLS (4255 Chippewa Drive, Boulder, CO 80303)
US Citizen 1975.

1) RESEARCH: Dr. H. Nichols asked by DOE official to research Rocky Flats (RF) airborne particles in 1974, contract awarded 1975-1976. I noted deficiencies in air sampling equipment and found large numbers of (unexplained) radionuclide particles in fresh snow (see below).*** Reported to DOE, Gov. D. Lamm, Cong. Tim Wirth.

2) I QUESTIONED ROCKWELL (DOE CONTRACTOR): "DID YOU ROUTINELY EMIT SMALL QUANTITIES OF TINY PLUTONIUM PARTICLES?" ANSWER: "YES" (CO HR subcommittee on Rocky Flats, chair Rep. Dorothy Rupert and Sen. Ruth Wright, 9/30/1987).

3) History of RF plutonium emissions by Dr. John Till for CDPHE, showed from official DOE data that over 600 million* nanocuries of plutonium were emitted from the RF stacks during routine operations from 1952/3 to 1989. **Minimal estimates." J. Till.

N.B. EPA official at RF, Tim Rehder "A nanocurie is a massive dose" (p.c. 2000).

4) *** *I conclude that the radionuclide particles I sampled were plutonium, and the numbers greatly exceeded the DOE total of over 600 million nanocuries; my estimates range up to tens of billions of plutonium particles per acre deposited across RF during routine operations.* Response from Dr J. Till at public meeting in Boulder, May 1, 2001: "I believe your (H. Nichols) data." Witnessed by Dr. LeRoy Moore.

5) With help from offices of US Sen. Allard and Cong. Beauprez I got information from EPA and US Fish and Wildlife Service (USFW) and learned that **I appear to be the only person ever to have sampled snowfall for radionuclides at RF (USFW letter 10/21/2003).**

6) SOIL SAMPLING: DOE and Kaiser-Hill have performed many soil samples at RF and maintain that plutonium levels in the Wildlife Refuge area are barely above "background" levels (i.e. from the atmospheric bomb tests of the 1950s/60s). NB the level of maximum radiological clean-up at the Refuge will be 50 picocuries/gram, approx. 1000 times "background." **Professor Litaor** at Tel-Hai Academic College, Israel, former soil scientist at RF, stated that when he worked in the (future) Wildlife Refuge area in 1990 - 95 " **I commonly found that my personal protection equipment (PPE) was 'hot' by the day's end and was discarded into the 'hot' contaminated bin.**" (p.c. letter March 23, 2004). **Dr. Litaor stated forcefully at a public meeting in Boulder in 2004 that from his direct experience at RF the scheme to allow recreation at Rocky Flats was "crazy."**

7) HEALTH EFFECTS OF PLUTONIUM EXPOSURE:

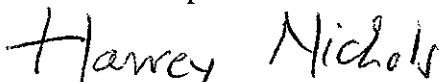
DOE, Kaiser-Hill, and USFW say that the small amounts of plutonium still remaining in the Refuge area are no threat to public health. Throughout the 20th century the US radiation standards, originally regarded as safe, were repeatedly revised downwards, and we can expect this process to continue, as knowledge advances. "Safe" today may not be safe tomorrow. Dr. Edward Martell of NCAR said that if he and Dr. Karl Morgan (founder of US health physics) were correct in suggesting that the US official radiological protection standards were too lax by factors of 100 or 1000, then there would be profound health consequences for exposure of the public to current "safe" levels of radiation (PBS Frontline program, 1993: VHS tape available to A, L, & NS Committee).

8) A PRISTINE REFUGE? The Colorado public has been told that the Wildlife Refuge is "pristine" (e.g. by DOE ecologist John Rampe, and RF spokesman Pat Etchart) but USFW acknowledge that they do not regard the RFNWF as pristine, because there is indeed residual contamination at a low level, and there are also invasive weeds (Oct. 21, 2003 letter to US Cong. Beauprez, forwarded to H. Nichols). I am concerned that at least one of our senior political representatives may have been influenced by this supposedly pristine status, and that may have colored his thinking about the matter.

9) PUBLIC PERCEPTION AND THE NEED FOR "INFORMED CONSENT."

Without signage Wildlife Refuge visitors would assume that a site certified for recreation by EPA and CDPHE, and managed by USFW, would be safe, unaware of the low levels of contamination remaining on site. It is the belief of former Boulder County Commissioner Paul Danish that such DOE sites need a "special status" for the indefinite future to protect the public, until further research shows whether they are safe, or not.

I therefore ask that the Committee approve Rep. McKinley's bill for consideration by the full House of Representatives.



(Signed) Harvey Nichols, Ph.D.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mountain-Prairie Region



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OCT 21 2003

Honorable Bob Beauprez
Member, United States House
of Representatives
4251 Kipling Street, Suite 370
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OCT 23 2003

Dear Mr. Beauprez:

Thank you for your letter of September 24 to Alexandra Pitts, Chief, Office of Congressional and Legislative Affairs, U. S. Fish and Wildlife Service (Service), regarding Dr. Harvey Nichols' concerns about the future use of the Rocky Flats Environmental Technology Site (Rocky Flats). We will attempt to address the concerns in Dr. Nichols' letter of September 4, which you enclosed, plus concerns of our response to your earlier letter of July 16 on behalf of Dr. Nichols.

Any information the Service has concerning the levels of contamination in the Rocky Flats Buffer Zone is currently available to the public. We have not referred to the Buffer Zone as "pristine" because we do not believe it to be so. Some areas of the Buffer Zone are publicly known to have very low levels of plutonium contamination; much of the Buffer Zone is also infested with exotic weeds. Since plutonium is not a naturally occurring element and these weeds are not native species, the Service does not consider the Buffer Zone to be pristine. We believe all the agencies at Rocky Flats acknowledge low level contamination in the Buffer Zone. The real question is if the contamination poses any significant health risks to future users of the land.

The Service will continue to seek additional sampling and better characterization of the Rocky Flats Buffer Zone. We are working with the Rocky Flats Cleanup Agreement (RFCA) Parties (U.S. Environmental Protection Agency, U.S. Department of Energy, Colorado Department of Public Health and Environment) to finalize the Sampling and Analysis Plan for the Rocky Flats Industrial Area and Buffer Zone. We anticipate that any data gaps will be identified in the site's Comprehensive Risk Assessment. If the RFCA Parties do not agree to sampling which we believe is adequate, we may conduct additional sampling as part of our Level III pre-acquisition contaminants survey. The Service is staffed and funded to conduct that work, if it is required. We are not aware of any sampling of snowfall at Rocky Flats other than Dr. Nichols' 1976 study.

In response to Dr. Nichols' letter, we have enclosed a portion of the responsiveness summary prepared by the RFCA Parties following public review of Proposed (now approved)