## CDPHE's views on visitor health risks at Rocky Flats National Wildlife Refuge: a disservice to the community and the case for a wider investigation. Harvey Nichols, Ph.D., February 5, 2018.

The Colorado state health department has an extraordinary responsibility to safeguard visitors to Rocky Flats Refuge, if opened for recreation in 2018. This notorious nuclear site demands great care by health authorities to protect visitors, lest they be harmed by contaminated land. Instead we see CDPHE parroting the DOE and promoting this site. Where is the due diligence and critical thinking vitally needed? Not at CDPHE, where its representatives show a supine dependence on DOE viewpoints that shocks concerned citizens.

CDPHE's spokesman previously told the Rocky Flats Stewardship Council "There are no health implications from the operations at Rocky Flats." This cannot be taken at face value. The Refuge is not remediated and throughout has "low levels of plutonium" dust from nuclear production (admitted by Refuge managers and studied by this author). Note that microscopic particles of plutonium can kill, so "low Levels" is a misleading term. The site is very windy, so inhalation of plutonium dust is likely. EPA states this is the most hazardous exposure route for the public.

CDPHE: "Millions of measurements" but many DOE data are meaningless, performed by in-house operatives without a duty to put health and safety first. Independent scientific critics of DOE are routinely rebuffed and even have their careers damaged. CDPHE: "Plutonium within official standards" but such standards are influenced by political and cost factors, while admitting some risks. The "safety" standards change with time, always more conservatively. "Safe today" may not be safe tomorrow.

CDPHE: "Health risks are very low" but they're up to 1: 10,000, same risk of death by lightning in Colorado. The risk estimates are not independently verified and were viewed by Dr. Karl Morgan (US health physics founder) and Dr. Ed Martell (NCAR radio-chemist) as far too liberal by factors of x500 to x1000. Allowances are not made for the especially susceptible (children, immune-suppressed, elderly, women).

No mention from CDPHE of discoveries in epi-genetics that show greater health impact (tumor initiation) from environmental assaults from e.g. ionizing radiation, as at the Refuge, and no mention of the possibility of multi-generational genomic damage reaching far into the future, as at Chernobyl.

<u>Solution</u>: Our Congressional representatives to require the National Academy of Sciences, Engineering and Medicine to examine all federal and private Refuge data to judge advisability of recreational visits to the Refuge.

[Space limits the source references; documentation available on request from: (Emeritus Professor of Biology, as citizen): Dr. Harvey Nichols, 4255 Chippewa Drive, Boulder CO 80303, tel 303 494 2700]