

## **Nichols' list of CDPHE shortcomings on handling of Rocky Flats**

Notes for meeting with Dr. Chris Urbina, CDPHE Director, Saturday April 6, 2013, convened by Senator Jeanne Nicholson and Trustees of the Town of Superior.

Historic complacency and weakness of CDH and CDPHE on Rocky Flats radiation and health effects, as perceived by the public: regrettably, DOE and their contractors may have repeatedly misinformed our state officials as to the relevant facts.

1) Dr. Tom Vernon, Director, Colorado Dept. of Health (CDH), at the public meeting of Gov. Romer's Cabinet (nicknamed "Dome on the Range") at Old Main Chapel, CU, Boulder, on March 22, 1988, commented on Rocky Flats environmental risks: "They have the finest equipment out there, and the best people." Previously (April 15, 1987), a team of scientists had visited CDH to outline the health risks at Rocky Flats and the deficiencies in air sampling equipment. Shortly after Dr. Vernon's remarks the weapons plant was raided by ~100 FBI and EPA agents (June 6, 1989) and later DOE contractor Rockwell International pleaded guilty to ten environmental crimes at Rocky Flats.

2) Al Hazle, of the Colorado Radiation Control Division of CDH, June 1987 press release: "If you stood at the perimeter fence at Rocky Flats for 70 years you would have only a 1 in 64 quadrillion chance of any health effect." This was an admittedly unfiltered quote from Rockwell without any CDH assessment on validity (H. Nichols interview July 1, 1987).

3) State Sub-Committee on Rocky Flats and Health chaired by Senator Dorothy Rupert, held in CO State Capitol, Denver, September 30, 1987, officially recorded; presentations by CDH, Rockwell International (contractors for DOE at Rocky Flats), and several scientists critical of Rocky Flats' safety record. Senator Rupert expressed her opinion on the performance of CDH at that meeting: "I'm very concerned about the Health Department. They were the weakest of the three groups at this meeting."

4) Current Colorado Dept. of Public Health and Environment (CDPHE) representatives appeared at formal CO State meetings unprepared, lacking credibility, and deficient in critical thinking at official meetings. Example A): the CDPHE legislative representative at the CO State Capitol at a meeting with Rep Wes McKinley in his office in a recorded meeting, winter 2009-'10, so unprepared for discussion of Rep. McKinley's House Bill 1127 on warning signage at Rocky Flats National Wildlife Refuge that she was unaware of the two major fires (1957 & 1969) that contaminated the area, and dismissed Rep. McKinley's and attendees' related health concerns as a mere controversy of "he said, she said."

5) Example B): At a Colorado State Capitol hearing in March 2010 before the House Military Affairs Committee on Rep. McKinley's HB 1127 Rocky Flats signage bill a number of medical and scientific professionals testified from their specialist knowledge as to the need for such warning signage at the Refuge trailheads. Carl Spreng as representative for CDPHE dismissed these lengthy testimonies by saying the health concerns about plutonium were misplaced: "Plutonium is no more dangerous than dry-cleaning fluid." That prompted inorganic chemist Anne Fenerty to forcefully correct him: "You can't say that!" Mr. Spreng appeared to the audience as seriously lacking in scientific and medical credibility at this point. Example C): Carl Spreng , CDPHE, appeared at the Rocky Flats Stewardship Council on February 4 2013 to review for representatives of surrounding communities the current environmental studies at Rocky Flats and after a largely uncritical summary concluded with his opinion "There are no health risks from Rocky Flats."

6) There are no up-to-date published comprehensive epidemiological studies of the communities neighboring Rocky Flats designed to detect the health effects of past "environmental crimes" (US Rep. H. Wolpe HR report 1992) at that contaminated site.

**WE NEED MODERN EPIDEMIOLOGICAL STUDIES OF THE COMMUNITY POPULATIONS AROUND ROCKY FLATS IN LIGHT OF THE KNOWN HISTORY OF ENVIRONMENTAL ABUSES BY INDUSTRIAL RELEASES, ESPECIALLY AS NEW COHORTS OF**

**HOMEOWNERS MIGRATE INTO THIS AREA.**

**WE NEED STUDIES OF THE POTENTIAL PLUTONIUM PRECURSORS OF TUMORS IN ONCOLOGY PATIENTS IN THIS DENVER METRO AREA. IF THERE IS AN ASSOCIATION OF ALPHA-RADIATION EMITTERS WITH CANCER WE SHOULD DETECT IT; IF NOT, WE COULD ALL “BREATHE EASIER.”**

Factual evidence of health risks from the Rocky Flats site:

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7) Plutonium is widely and authoritatively recognized as highly dangerous especially when it may be inhaled in dust form. A microgram of plutonium is recognized by DOE as potentially deadly and a nano-Curie is described by EPA as “a massive dose” (Tim Rehder, senior EPA scientist at Rocky Flats, personal comment, 2000).

Plutonium dust was routinely daily emitted in tiny but potentially harmful amounts and sizes throughout the atomic weapons production at Rocky Flats. This effluent, gases and particulates, had passed through the HEPA filters and was emitted from the stacks to be released into the ambient air. Though denser than lead, the Pu dust was in such microscopic and sub-microscopic form that it needed only the presence of the lightest air movements to distribute it widely over the Rocky Flats site and far beyond. These aerosols were detected when snow scavenged the dust from the air on the Rocky Flats site, in a 1975-6 study funded by ERDA – DOE to Professor Harvey Nichols of CU Boulder. Irradiation of the samples showed very large numbers of radionuclides and later estimates from these ‘real time’ microscopic analyses produced estimates of billions of Pu particles deposited per acre at Rocky Flats from four decades of emissions. The entire Rocky Flats area, from Nichols’ samples in the modern Refuge and along the Indiana Street route of the planned Jefferson Parkway, was dusted with Pu particles, in the size range suited to inhalation. Much remains. Studies in the 1990s by physicist Dr. John Till, funded by DOE through CDPHE, show from official DOE data that from 1952 – 1989 over

600 million nano-Curies of Pu were released from the plant (minimum figures since he excluded the unknown quantities released in the oil drum spills and the 1957 and '69 fires). In 1994 a CSU team (Webb, Stone, Ibrahim and Whicker) funded by CDPHE and Dow Chemical reported on the plutonium in soils across a wide eastern arc of the site. The soils along Indiana Street are some of the most Pu-contaminated and contain sufficient plutonium to provide fatal doses of plutonium dust to many local inhabitants via inhalation. Road excavation dust for a major highway would inevitably release such contaminants into the surrounding communities, and is clearly contra-indicated.

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