

From: Jan Boudart <janboudart1@gmail.com>
Sent: Sunday, June 14, 2020 11:31 PM
To: Holtec-CISFEIS Resource
Subject: [External_Sender] Docket ID: NRS 2018-0052

Thank you for the opportunity to comment on the Draft Environmental Impact statement prepared for the Eddy/Lea CIS in New Mexico. Docket ID NRC 2018-0052

My comments are confined to **Section 3.12.3.Radiation Protection Standards** quoted below.

It is very hard to convert the sterile language of this paragraph into terms that apply to human beings. In fact, there seems to be no particular human situation to which this does apply. No subject/recipient of radiation is mentioned; so in its absence I'm assuming "reference man".*

Thus you are (1) referring to the cancer rate for a man between 20-24, 5 feet 8 inches tall, weighing 154 lb.; (2) ignoring all illnesses besides cancer caused by background radiation plus the small increase you claim, and (3) not counting the rest of the human, animal and plant life cycles that are affected by radiation at least as much as this healthy human male, and for the rest of all creatures' life cycles, more. You don't mention that for each reference man who gets cancer, 2 reference women, several little boys and several+ little girls, to say nothing of the effect of radiation on the fetus of all animal species. In addition, plants and the progeny of all will exhibit the effects.

The paragraphs in section 3.12.3 are opaque on how the biota surrounding the Holtec CIS in New Mexico will be protected.

This ends my comment on **Section 3.12.3.Radiation Protection Standards**

Quotation from the DEIS:

"Section 3.12.3.Radiation Protection Standards

"The NRC has a statutory responsibility, pursuant to the Atomic Energy Act of 1954, as amended, to protect worker and public health and safety. The NRC's regulations in 10 CFR Part 20 specify annual worker dose limits, including 0.05 Sv [5 rem] total effective dose equivalent (TEDE) and dose limits to members of the public, including 1 mSv [100 mrem] TEDE with no more than 0.02 mSv [2 mrem] in any 1-hour period from any external sources. Additionally, 10 CFR Part 72 includes an annual public dose limit of 0.25 mSv [25 mrem] committed dose equivalent to the whole body. These public dose limits from NRC-licensed activities are a fraction of the background radiation dose, as discussed in EIS Section 3.12.1.1.

"Exposure to radiation presents an additional risk of cancer or a severe hereditary effect. The annual dose limit the International Atomic Energy Agency (IAEA), as well as the NRC, set to protect members of the public from the harmful effects of radiation is 1 mSv [100 mrem]. The additional risk of fatal cancer associated with a dose of 1 mSv [100 mrem], calculated using the scientific methods of the International Commission on Radiological Protection (ICRP, 2007) and applying a linear-no-threshold dose response assumption, is on the order of 1 in 20,000. This small increase in lifetime risk can be compared to the baseline lifetime risks of 1 in 3 for anyone developing a cancer and 1 in 5 for anyone developing a fatal cancer (ACS, 2018)."

***Description of Reference man and woman.**

<https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100410288>

A hypothetical man and woman, based upon the average physical dimensions from detailed measurements of thousands of subjects in anthropometric studies. Reference man has the following characteristics: age 20–24; height 68.5 in; weight 154 lb; total fat 23.1 lb (15%) of which storage fat is 18.5 lb (12%) and essential fat is 4.6 lb (3%); muscle 69 lb (44.8%); bone 23 lb (14.9%); remainder 38.9 lb (25.3%). Reference woman has the following characteristics: age 20–24; height 64.5 in; weight 125 lb; total fat 33.8 lb (27%) of which storage fat is 18.5 lb (15%) and essential fat is 15 lb (12%); muscle 45 lb (36%); bone 15 lb (12%); remainder 31.2 lb (25%).

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