



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

JUL 13 1989

Ref: 8HWM-RI

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Department of Energy
Albuquerque Operations
Rocky Flats Area Office
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Dominick Sanchini, President
Rockwell International Corporation
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Dear Sir:

This letter is in response to Rush Inlow's June 2, 1989, letter regarding the 881 Hillside Interim Response Action (IRA). First, EPA and CDH must respond to an apparent misunderstanding stemming from a meeting held April 19, 1989, to discuss the EPA and CDH comments and DOE responses pertaining to the 881 Hillside RI/FS.

EPA and CDH have never stated that the 881 Hillside area does not pose an imminent threat to public health and the environment. Under CERCLA and RCRA, an endangerment is a threatened or potential harm and may be imminent if the conditions which give rise to it are present even though the harm may not be realized for years. EPA and CDH comments on the March 1, 1988, DOE and Rockwell International submittal of the 881 Hillside RI/FS specifically stated that there is potential for risk associated with this site. The DOE and Rockwell March submittal of the 881 Hillside RI/FS contained an assessment of public health impact based on unsubstantiated conclusions regarding the presence or non-presence of contamination at the site, including whether inorganics, metals and radionuclides were elevated above background. As a result, the exposure to specific contaminants was eliminated arbitrarily and exposure pathways were disregarded without justification. The March submittal of the 881 Hillside RI/FS does not support a conclusion that there exists no imminent threat to public health and the environment. It appears that DOE may have misunderstood EPA's position concerning the risk associated with the 881 Hillside. At this time, EPA and CDH believe that the 881 Hillside Area does not pose an immediate risk to public health and the environment as to warrant public alarm. However, further study of the area may alter this position.

Administrative routing slip with handwritten checkmarks and initials.

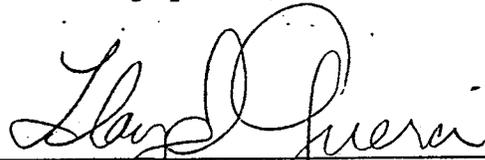
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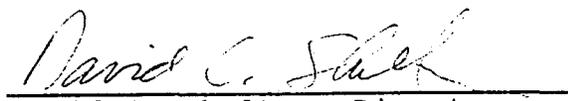
By R. B. Hoffman
Date 6-18-90
By George H. Setlock
Date 6/15/90
ADMIN RECORD
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A-DU01-000052

Secondly, EPA and CDH are aware that DOE, as a result of the June 28, 1989, Agreement In Principle between the State of Colorado and DOE, has committed to provide additional funds to assess and cleanup heavy metals and radioactive constituents that are present in the groundwater beneath the 881 Hillside. However, it must be made clear that the 881 Hillside IRA cannot be initiated without our approval (see 42 USC Section 9622(e)(6)). We have not approved the 881 Hillside IRA as proposed in the May 9, 1989, submittal. One of our concerns is that your proposal only addresses volatile organics and does not address radionuclides, inorganics, or metals, and it may not intercept all groundwater to bedrock. We believe that an interim action at the 881 Hillside should include an interceptor system which is keyed into competent, impermeable bedrock, ie. hydraulic conductivity is less than 1×10^{-7} cm/s, and capture known contaminants from all units at the 881 Hillside. We are receptive to further review of possible interim actions.

EPA and CDH will forward specific written comments pertaining to the May 9, 1989, 881 Hillside IRA proposal at a future date. Any questions regarding this matter can be directed to Mr. Nathaniel Miullo at (303) 293-1668, Mr. Martin Hestmark at (303) 293-1506, or Ms. Patty Corbetta at (303) 331-4843.

Sincerely yours,


Lloyd S. Guerci, Acting Director
Hazardous Waste Management Division


David C. Shelton, Director
Hazardous Materials and Waste
Management Division

EPA/CDH letter of July 13, 1989.

Comment.

One of our concerns is that your proposal only addresses VOCs and not rads, inorganics or metals, and it may not intercept all ground water to bedrock. We believe an interim action at the 881 Hillside should include an interceptor system which is keyed into competent, impermeable bedrock, i.e., hydraulic conductivity is less than 1×10^{-7} cm/s, and capture known contaminants from all units at the 881 Hillside. We are receptive to further review of possible interim actions.

Response.

The as-proposed interim action at the 881 Hillside involves treatment of collected ground water for VOCs. Radioactive, inorganic and metal compounds are not considered to be problems; however, as agreed, the interim action will be revised to include treatment for these compounds.

The proposed interim action will collect ground water from the soils on the hillside in a french drain with a downstream impermeable membrane. The drain will fully penetrate the colluvial, water-bearing soils and be keyed into competent, low permeability bedrock. The drain will intercept the vast majority of the ground water in the soils.

The claystone bedrock immediately beneath the colluvial soils is sufficiently impermeable for this system to function effectively. This is based on the following.

1. The geometric mean hydraulic conductivity of weathered claystone as determined by packer tests is 7×10^{-7} cm/s (Table 5-1, page 5-10 of the March 1, 1988, Remedial Investigation Report). This is more than two orders of magnitude less permeable than the colluvial soils, which have a geometric mean hydraulic conductivity of 1×10^{-4} cm/s (Table 5-2, page 5-25 of the RI).
2. The shallow claystone bedrock has sufficiently low vertical hydraulic conductivity to perch the colluvial ground water above the bedrock ground water, as evidenced by water level data at the clustered wells and the lack of volatile compounds in the bedrock ground water.

Thus, it is anticipated that the french drain will ^{be effective in} collect ^{ing} all of the colluvial ground water and will ~~effectively~~ ^{ing} limit releases from the 881 Hillside area.

ADMIN RECORD