Dr. John W. Ray

Superfund has been around in Butte for a long time. Millions of dollars have been spent. While progress has been made, such as the Residential Metals Abatement Program, there are significant problems with the EPA and Montana Department of Environmental Quality (MDEQ) Superfund cleanup in Butte in the following areas.

**Montana Pole Plant**

Current treatment methods at the Montana Pole Plant, by MDEQ's own admission, have not been effective in lessening dioxin in the soils nor in groundwater. PCP/dioxin contamination north of Silver Bow Creek has been ignored, as has the expansion of the groundwater contaminant plume. EPA and MDEQ have dismissed this failure to meet their own treatment goals and intend to continue using the same old failed treatment method. For some unknown reason, the EPA has not applied its own dioxin standards for groundwater at the Montana Pole Plant site.

The continuing presence of significant levels of dioxin, PCBs and furans is an immediate threat to the health of resident's near the Pole Plant and a continuing threat to groundwater and surface water. Dioxin is a very potent carcinogen with no really safe levels of exposure. EPA and MDEQ have failed to use more effective treatment approaches, such as fungi, that could be more efficacious in really cleaning up the site.

The dioxins and other contaminants at the Pole Plant will all be just left in place, covered with only 12 inches of topsoil caps. Previous capping on the Butte Hill, which uses more soil than the level at Montana Pole, has not worked well. We have a situation where the most toxic substances in Butte (dioxins, PCPs and furans) are to be covered with the least amount of soil. Caps, as we have seen in Butte already, are susceptible to failure by means of: bio-irrigation, advection, desiccation, erosion, weathering, bio-intrusion and stabilization problems. Caps also have significant construction, repair and maintenance problems. Yet, caps are all the EPA offers Butte residents.

**Environmental Justice**

Although central Butte, which corresponds to the Butte Priority Soils Superfund site, has a disproportionate number of low income citizens who are adversely and disparately affected by the toxics found on the Butte Hill and although EPA has a mandate to promote environmental justice, the poor have largely been ignored by the EPA. The EPA has failed to consider the disparate effects of toxics exposure on low income citizens. Low income citizens have been excluded from EPA decision making. EPA has undertaken no special outreach to low income citizens as required under EPA's own environmental justice mandate.

**Butte Health Study**

Citizens have a right to know whether or not Superfund has been effective in protecting public health from the dangers of heavy metal exposure in Butte. A while back, Stacie Barry conducted a health study for her PhD at Montana Tech that lead to the clear inference that Superfund was not working to protect public health. The EPA's response was to dismiss her findings and engage in an effort to smear her research. While denigrating Stacie's work, the EPA and Butte Silver Bow created their own health study

team to conduct a health study of Butte. What was interesting was that at the same time that the new health study was announced, it was also stated that the study would show that human health was being protected in Butte. It is poor scientific research methodology to state the results of a study before the study is conducted. It is obvious that EPA only wanted a propaganda piece to allay the fears of Butte residents.

**Parrott Tailings**

The Parrott Tailings are a threat to Butte's ground water and should have been removed as part of the Butte Priority Soils Record of Decision. EPA used a "model" to show that the Parrott Tailings posed no threat to Butte's water. However, the Parrott Tailing's real data shows that this EPA "model" is flawed. Yet, EPA still denies the facts in favor of the model.

**Lead and Arsenic Action Levels**

Action levels trigger cleanup. Recently, the Centers for Disease Control tightened the acceptable blood lead level for children, saying that the old standard that EPA used in establishing the lead action levels in Butte was no longer protective. EPA refuses to tighten its more permissive/less protective lead action levels in light of the CDC's findings. The basis of EPA's arsenic action levels is even more mysterious. Citizens have asked EPA to justify its arsenic action levels for Butte but in reply EPA officials have not been able to produce the data that lead to the arsenic action levels, instead saying that the arsenic action levels were the result of agency intuition. How can EPA claim that its decisions are examples of "good science?" Also, EPA uses acute measures of arsenic exposure while the arsenic problem in Butte is chronic exposure. Although used at numerous other Superfund sites across the country, EPA refuses to use hair and nail studies to get at the true picture of chronic arsenic exposure.

**Berkeley Pit**

Releasing lime treated water into Silver Bow Creek, as called for under the Pit remedy, could produce significant scaling problems. EPA dismisses out of hand these concerns. If scaling was to occur, and it has occurred elsewhere, the efficacy of the Silver Bow Creek cleanup would be compromised.

**Citizen Involvement**

The EPA is supposed to promote full and meaningful citizen involvement in Superfund decision making. Routinely, EPA ignores citizen input in favor of the status quo. For example, I was on an EPA citizen group of about twenty people who came up with several recommendations to EPA regarding Butte Superfund cleanup. Not one was accepted and we were never told why they were not accepted. Lately, EPA has taken to calling citizen concerns about the quality of the Butte cleanup alarmist. A state of inertia has swept over EPA in that EPA refuses to critically evaluate its approach to cleanup in light of citizen concerns. Reviews of EPA's performance, such as Five-Year Reviews, are conducted by the EPA. When you have an agency evaluating itself, what confidence can the public have in the validity and integrity of the process?

Citizens need to hold EPA and MDEQ accountable for the substandard cleanup we have received. EPA's approach to cleanup in Butte has become ossified.