May 30, 1995

To The United States Army, Shell Oil Company, The Environmental Protection Agency, and the State of Colorado,

The Sierra Club has received the Conceptual Agreement Components document generated from the RMA remedy negotiations (5/9 - 5/11/95). We would like to address the following concerns with the agreement:

Global Issues

1) Lack of Detoxification: After spending numerous months reviewing documents and technology alternatives, we are discouraged to see a plan which primarily utilizes containment as the lead remediation technique, rather than treatment of the chemicals of concern. We are of the opinion that innovative technologies show potential utility for clean-up at several of the areas currently slated for proposed landfiling and/or capping. We are concerned that chemicals manufactured on RMA have the potential to contaminate soil and water for many generations.

2) Landfill Utilization: During the clean-up alternatives public comment period, several of our committee members recommended a landfill be sited on the RMA in lieu of effective treatment remedies. However, an important component of our recommendation appears to have been overlooked. It was proposed that the landfill serve as an interim measure until an effective technology became available in the future. The current proposal indicates that the landfill would serve as a permanent remedy. This is not acceptable to the Sierra Club. While we see the need to build a landfill, we would like to see it utilized only until adequate technology becomes available for detoxification of the chemicals of concern.

In addition, we believe the current sanitary landfill should be remediated and all waste placed into the new state-of-the-art landfill. In order to guarantee the safety of our future generations, we believe these requests must be addressed.

3) Trust Fund: To guarantee adequate financial resources will be available for the completion of the clean-up, a trust fund must be established. The Sierra Club sees the creation of this fund as a commitment from the responsible parties that they are seriously committed to the surrounding community and to the remediation of this Superfund site.

4) Research and Development: The concept of research being conducted on the RMA is very important to the Sierra Club. We envision the
Arsenal serving as a national site for innovative technologies to be pilot tested. It is obvious from the lack of detoxifying technologies in the Agreement Components Document that much additional research is needed for effective and safe remediation of chemicals such as Dieldrin. We are pleased to learn that the Hex Pits may serve as a site for technology evaluation and we fully support this idea.

5) **Arsenal Tours:** We believe it would be prudent of the principle parties to request a halt to public tours on RMA during the clean-up process. As this site clean-up involves movement of hazardous chemicals, the only safeguard against visitor exposure is stoppage of tours during the remediation period.

6) **Wildlife Habitat:** We would like to advocate protection of wildlife habitats during the remediation efforts. As the Arsenal will become a Wildlife Refuge upon clean-up completion, an assurance of adequate and uncontaminated habitat zones during the process must be provided.

7) **Dioxin Testing:** The issue of dioxin contamination on the Arsenal has to date not been effectively addressed. The generation of dioxins is possible from incomplete combustion processes or as by-products of chemical manufacturing. Both of these scenarios occurred on RMA. To improve public credibility, it is essential that the PRPs initiate soil sampling for dioxins.

**Site Specific Issues**

1) **Basin A:** Foremost, we are concerned that no treatment of soils will take place in this basin prior to capping the area. The potential for ground water contamination might be possible for an indefinite period of time. In all previous proposals, a de-watering and/or slurry wall barrier was recommended. We would advocate dewatering of Basin-A prior to capping. Also, many yards of soil will be placed into Basin A without prior treatment, we would like to see solidification of all soils before adding to this basin to ensure lack of chemical migration.

2) **Former Basin F:** Although a treatment technology is proposed for this site, we question the effectiveness of soil solidification. This method was not previously discussed during the innovative technology meetings. Also, because only the first ten feet will be treated, the potential for ground water contamination is possible from chemical movement in the lower soil depths.
3) **Basin F Wastepile:** We are pleased that the wastepile will be stored in a celled landfill, however, we have two areas of concern: (1) lack of detoxification, and (2) odor abatement. The detoxification issue was previously addressed in global issues #1. Odor generation during excavation of the wastepile is a topic which must be addressed. We would like to see air emission monitoring devices in place for the duration of the wastepile excavation. For the protection of the surrounding communities, an enclosure surrounding the excavation sites is advocated.

4) **South Plants:** The proposed excavation to 5 feet should be increased to ten feet to be fully protective of human health.

5) **North Plants:** In the Conceptual Agreement Document there is no indication of the depth of soil which will be excavated for placement in the landfill. We would encourage the parties to adhere to a depth no less than 10 feet.

6) **Pits/Trenches:** The Army and Shell trenches may contain extremely hazardous materials. We would agree with the proposal of expanding the slurry walls prior to capping the sites.

   The proposal of utilizing an innovative technology for the remediation of the Hex Pits is supported by the Sierra Club. We would like to see more information as to the options for technologies considered.

   **M-1 pits:** What solidification technology will be used to stabilize the chemicals?

7) **Chemical Sewers:** In the South Plants region, no treatment of chemicals or movement of soil is proposed. We are concerned about continued groundwater contamination if the suggested actions are followed.

8) **Groundwater:** There are several issues we would like to see addressed in the groundwater proposal.

   (a.) Why isn't de-watering still a viable option for the basins?

   (b.) Appropriation of water from alternative sources-what is the current status of this proposal?

   (c.) Boundary system-We would like some written assurance as to the length of time the system will be operational.

   (d.) The proposed 4,000 acre feet is inadequate to meet the growing needs of the surrounding communities. We would like to see this allocation increased. Also, we would like some clarification as to who would be responsible for hook-up fees once the main system is installed.
(9) **Surficial Soils:** We would like to see a proposal for soil contamination not equivalent to biota exceedance levels. This is a relevant issue in regard to wildlife health on the Arsenal. A provision should be included to account for future data generated from animal studies if lower chemical exposure is shown to cause adverse effects.

(10) **Off-post:** This is an issue not yet addressed: We would advocate treatment of contaminated soils or landfilling them as an interim action.

(11) **Montbello:** This is an issue not yet addressed: We would strongly recommend soil and health screening be conducted in this community. It is critical to the PRPs for maintaining community relations.

As we have worked diligently as volunteers on numerous issues relating to the RMA, we hope you will keep us informed as to any modifications of the Conceptual Agreement. We look forward to receiving your written responses addressing these issues. Thank-you.

Sincerely,

Sandy Horrocks  
Sierra Club Rocky Mountain Arsenal Subcommittee Chairperson