

CIMARRON CORPORATION

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S. JESS LARSEN
VICE PRESIDENT

April 25, 1996

70-925

Mr. Ken Kalman
Low-Level Waste and Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: Cimarron Facility Soil Characterization for On-Site Disposal

Dear Mr. Kalman:

In accord with your request made during our conference call on March 27, 1996, Cimarron Corporation is forwarding a description of the minor procedural change required in order to allow site decommissioning work to continue efficiently. This change is prompted by the fact that overall site remediation has progressed to the point that the facility is running out of areas for placement of soil stockpiles awaiting confirmatory sampling. The stockpiles are a potential source of subsurface and run-off recontamination.

Present Method

Cimarron Corporation has been stockpiling soil and debris contaminated with enriched uranium at BTP Option #2 concentrations on-site over areas requiring final characterization and possible remediation. Under the existing procedure, Cimarron personnel perform an initial characterization of an area, and if required, excavate and separate the soil utilizing a NaI "dirt probe" into BTP Option #1, #2 or #4 classifications. The protocol utilized to sort this material with the "dirt probe" is reviewed on a routine basis. The BTP Option #2 material is placed in a stockpile as it is removed from an active remediation area. This allows for final characterization of BTP Option #2 materials in the stockpile prior to placement in the on-site disposal cell.

Three stockpiles (referred to as DAP-1 through DAP-3) of BTP Option #2 materials, and located northeast and east of the Uranium Plant Building, have been characterized by Cimarron personnel. The final characterization of the soils in the stockpile consists of surface surveys with a Micro-R Meter, dirt probe surveys and soil sampling, all on a 5-meter by 5-meter grid and with soil samples composited in half meter intervals throughout the depth of the stockpile. ORISE has performed confirmatory survey and sampling on these three stockpiles and submitted a report of their findings to the NRC. Those stockpiles were subsequently approved for on-site disposal by the NRC, and have been placed in the on-site disposal cell.

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A SUBSIDIARY OF KERR-MCGEE CORPORATION

Cimarron Corporation is in the process of completing the stockpiling and characterization of BTP Option #2 materials in the stockpile designated as DAP-4. These materials will be disposed in Pit #2 of the on-site disposal cell that is now open. Pit #3 of the disposal cell will then be constructed prior to closure of Pit #2. It will receive the remainder of the BTP Option #2 materials requiring disposal on-site.

Proposed Method

A minor change to the present method will entail transporting the sorted BTP Option #2 materials directly to Pit #3 of the disposal cell. Once in the pit, the materials will be unloaded, spread in a single lift of 1-foot maximum depth, and compacted. Once the lift has been placed, the material will be sampled on a 5-meter by 5-meter grid. Soil samples will be collected through the entire thickness of the lift and composited for analysis with the on-site soil counter. Any areas exceeding the BTP Option #2 limit will be reviewed to determine if the "hot spot" average exceeds the guidelines. In addition, any areas exceeding the "hot spot" average of three times the guideline value will be removed and packaged for off-site disposal. After the data review is completed, the lift will be final compacted to obtain a 95% Proctor density as required by the present method. After the first lift is placed and sampled, subsequent lifts will be placed, sampled, and compacted as per the approved procedure to allow the necessary four foot minimum cap depth. (NOTE: The final characterization sampling frequency for the BTP Option #2 soils under this revised procedure will result in 50% more samples being collected than under the existing method.)

In accord with the current method, a 100% surface survey will be completed after compaction of each lift, with the highest reading within each five meter grid being recorded. Finally, the analytical results for the on-site disposal for Pit #3 will be compiled and submitted to the NRC for review prior to placing the final cap over the cell.

Conclusion

Cimarron Corporation believes that this minor procedural change is not significantly different than the present methods being utilized. It does, however, eliminate the need for us to build another stockpile and therein contaminate another area. We are quickly reaching the point where nearly all our areas have been cleaned. Using this revised method, soil sampling is considerably more frequent, and therefore, the whole process is more conservative than the present method being used. Further, the reduced handling of contaminated soils follows our commitment to ALARA practices, and reduces potential for recontamination.

I request your prompt approval of this change and thank you for your assistance in improving both the functionality and the safety of our existing remediation process. If I can answer any questions that you may have, please contact me at telephone (405)270-2288 or fax (405)270-3787.

Sincerely,



Jess Larsen
Vice President
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