

March 8, 2006

Mr. Jeff Lux, Project Manager  
Tronox Worldwide, LLC  
P.O. Box 268859  
Oklahoma City, OK 73126-8859

SUBJECT: FINAL STATUS SURVEY REPORT FOR SUBAREA F OF THE CIMARRON  
SITE IN CRESCENT, OKLAHOMA

Dear Mr. Lux,

I am responding to your December 21, 2005, letter to me regarding the U.S. Nuclear Regulatory Commission (NRC) staff review of your final status survey report (FSSR) for soils in Subarea F. Our review was documented in a letter from me to you dated November 30, 2005. Your December letter stated your concerns with our request that you resubmit the FSSR using the appropriate guidance. We also discussed this issue during our February 23, 2006 telephone conference.

As discussed in our February telephone conference, NRC staff is unable to concur with your statement that surface and subsurface soil in Subarea F meet NRC criteria for unrestricted release because the groundwater contamination in Subarea F originated as subsurface contamination from buried radioactive waste. Therefore, your use of the guidelines in NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination," in your FSSR, to demonstrate that soil in Subarea F meets the criteria for unrestricted release is inappropriate. That guidance is specifically directed toward surface contamination, not subsurface. Additionally, the proximity of groundwater contamination to the surface along with the potential changes in groundwater levels from recharge make it difficult to demonstrate the long-term levels of radioactive contamination in the soil. As noted in our telephone conference, these uncertainties would impede NRC staff's ability to develop an accurate dose assessment.

NRC staff maintains its position for you to provide the information requested in my November letter to you. During our telephone conference, NRC staff agreed to participate in a future telephone conference with Cimarron and the Oklahoma Department of Environmental Quality (ODEQ) to enable Cimarron to get a better understanding of what will be needed to meet NRC and ODEQ requirements related to remediation. Please keep me apprised of your progress in coordinating this telephone conference so I can ensure the necessary NRC staff will be available to participate.

J. Lux

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If you have any questions regarding this letter, please contact me by phone at (301) 415-6664 or by e-mail at [klk@nrc.gov](mailto:klk@nrc.gov).

Sincerely,

**/RA/**

Kenneth L. Kalman, Project Manager  
Materials Decommissioning Section  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 70-925  
License No.: SNM-928

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J. Lux

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If you have any questions regarding this letter, please contact me by phone at (301) 415-6664 or by e-mail at [klk@nrc.gov](mailto:klk@nrc.gov).

Sincerely,

**/RA/**

Kenneth L. Kalman, Project Manager  
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