

Several commenters urged EPA to promulgate a broad conditional exemption from RCRA for the use of CCO to all mixed wastes including those containing accelerator produced radionuclides for all sites that are Nuclear Regulatory Commission (NRC) licensees.

EPA Responds: EPA appreciates the viewpoints expressed by these commenters but stresses that our decisions are site-specific and only apply to LBNL's CCO process and waste. Others who may wish to exclude their waste or demonstrate that their particular CCO system or other technology is equivalent to that required for treatment of ignitable wastes as required by our LDR regulations, would be required to submit their own Delisting and DET Petitions to EPA or their authorized state.

C. What Were the Non-Supportive Comments and EPA's Responses?

The non-supportive comments came mostly from a local community group with a few from industry.

(1) One industry representative expressed support for EPA's proposed delisting decision but did not support the DET proposed decision. This commenter was concerned that EPA's decision will give an implied seal of approval by allowing the decision to include any other application of the CCO technology beyond the instance of its practice at LBNL. This commenter was further concerned that EPA's approval is "sanctioning a thermal technology, not unlike incineration, when other alternatives are available." Several local citizens expressed a similar concern that approval of the petition could allow others to utilize the petition and help others " * * * get their legal status established" and that approval of the petition will open the use of this process for further application at LBNL.

EPA Responds: EPA disagrees with these commenters. As previously described our final decision is a site-specific, one-time only exclusion, that applies to the approximately 200 US Gallons of residues from treatment of low-level mixed waste from the NTLF at LBNL. The NTLF that generated the original mixed waste is now closed and is not expected to reopen. The CCO unit has been dismantled and stored and is not expected to be reused at the LBNL facility.

LBNL did purposefully share their data from the treatability study and their analysis of the regulatory requirements for treatment of mixed waste to assist others who are interested in developing national capacity for treatment of mixed

wastes. However, others who may wish to demonstrate their own particular CCO technology would be required to submit their own DET Petition to EPA or their authorized state.

(2) Another commenter said that the tritium should not be disposed in a landfill. Other commenters agreed and expressed concern that EPA has inaccurate information regarding the availability of mixed waste treatment and disposal facilities. Additionally, several commenters stated that a superior process for CCO is currently being tested under EPA's Project XL and therefore LBNL's Delisting Petition is not necessary.

EPA Responds: EPA disagrees with these commenters that the Delisting Petition is unnecessary or that tritium should not be disposed to a landfill. Tritium is not a regulated hazardous waste constituent under EPA's RCRA program. Approval of the Delisting Petition in no way alters the DOE radioactive material standards applicable to the tritium in the treatment residuals. These wastes must be managed as a low-level radioactive waste.

At this time, EPA is unaware of any available option for recycling of the tritium. EPA believes that the CCO process LBNL used represents the state of the art in capture and recovery of tritium in mixed waste.

The wide geographic use and almost simultaneous development of this technology nationally and the degree of sharing of information among these facilities leads EPA to conclude that catalytic chemical oxidation of mixed waste is a viable and effective treatment method.

(3) Several commenters requested that EPA postpone its Delisting and DET decision until all the radioactivity in the treated residual waste has decayed, then manage the waste as a hazardous waste. Commenters suggest that this would be the cheapest and safest method of dealing with the waste and less of a health risk than future burning of more radioactive mixed waste.

EPA Responds: EPA disagrees with these commenters. The original mixed waste has already been treated to destroy the hazardous constituents; the remaining treatment residuals are low-level radioactive waste only (tritiated water). The DET and Delisting are necessary administrative steps to facilitate appropriate final disposition of the waste. EPA calculates that the natural decay of these residuals would take several hundred years. The permitted mixed waste storage facility at LBNL is not designed or operated to store radioactive wastes for this long

period of time. EPA believes that the treated residual waste is best managed as a low-level radiological waste at a disposal facility designed and operated to safely and permanently manage these wastes.

Our decision to grant LBNL's petitions for a Delisting and DET is site specific and applies only to the 200 gallons of treated residual waste at LBNL. Any other facility that generates and wishes to treat its own mixed waste is subject to its own local, state, and federal regulations for hazardous and for radioactive wastes.

(4) Several commenters expressed a variety of concerns regarding tritium and its release during the CCO process, given that "the CCO system is still a very highly experimental process" and believed that it was premature for EPA to make any decisions regarding the use of the process at this time. Commenters also asked numerous questions regarding specific operational details of the CCO system such as the possible formation of deposits or dioxins, and whether any corrosion or safety studies had been done.

EPA Responds: EPA disagrees that consideration of the fate of tritium during the CCO process is relevant to our proposed decisions to grant the Delisting or the DET Petitions or that the CCO process is experimental or our decision premature. As previously described, tritium is not a RCRA hazardous constituent and therefore is not subject to EPA's delisting or DET petition regulations. EPA regulates the hazardous waste portion, while the NRC or DOE regulate the radioactive portion of mixed waste.

In order for EPA to delist a particular waste, the petitioner must demonstrate: (1) The waste does not meet any of the criteria under which the waste was listed, (2) the waste does not exhibit any of the hazardous waste characteristics defined in Secs. 261.21 through 261.24, and (3) there are no additional constituents in the waste other than those for which it was listed, that would cause the waste to be a hazardous waste (40 CFR 260.22(a)). For this petition, EPA believes that LBNL has met the three criteria listed in 40 CFR 260.22(a) because the treatment residuals do not contain any detectable concentrations of RCRA hazardous constituents.

The object of the CCO process was to ensure destruction of the hazardous constituents of the waste while capturing radioactive constituents. The data from the treatability study indicate a greater than 98% trapping efficiency for the tritiated water in the CCO system. EPA believes that the CCO process represents the state of the art in