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CATHERINE R McCABE
Commissioner

October 9, 2019

Pat Evangelista, Acting Director
Superfund and Emergency Management Division
U.S. Environmental Protection Agency Region II
290 Broadway
New York, NY 10007-1866

RE: LCP Chemicals Inc., Linden City, Union County (SRP PI# G000003747)

Dear Mr. Evangelista:

I am following up on our discussion from the September 4, 2019 meeting regarding the LCP Chemical Inc. Site. The New Jersey Department of Environmental Protection (Department) has completed its review of the draft Explanation of Significant Differences (ESD), provided on February 28, 2019, that memorialized U.S. Environmental Protection Agency's (EPA's) changes to the remedy selected in its February 25, 2014 Record of Decision (ROD) for this site.

In a February 19, 2014 letter, the Department explained its reasons for non-concurrence with EPA's December 2013 draft ROD, which included the following.

- A treatability study of the in-situ stabilization technology was not performed to determine if the technology would be effective at the LCP site for treatment to a depth of 6 feet. In addition, it had not been determined if there were any obstructions at depth which might have hindered in-situ stabilization to the target depth of 17 feet.

- The Department also disagreed with the contingency remedy of containment alone, which would not adequately address the free mercury, but instead recommended off-site disposal (Alternative 58). While costly, this alternative appeared implementable.

It should be noted that the Department did concur with the proposed concept of in-situ stabilization of the free mercury to a depth of 17 feet, a multi-layer cap, a shallow ground water treatment system, and ground water monitoring.

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Subsequent to the ROD approval by EPA, a bench scale study was conducted to evaluate both the conversion of mercury to mercuric sulfide and the reduction of the solubility of the mercury. The results of the study were submitted in January 2018 and show that the treatments are either ineffective at converting the elemental mercury to mercuric sulfide or would increase the solubility of the mercury at both the 6- and 17-foot depths.

Based on the failure of the study, EPA submitted a draft ESD to the Department for review that supports their second contingency option of on-site containment without treatment which would leave free and residual mercury on site.

The Department cannot concur with the draft ESD for the following reasons:

- Free mercury, a principal threat waste, has been identified over a 2-acre area up to a depth of 17 feet. Excavation and disposal of the free mercury results in the removal of the highest threat waste resulting in a more permanent remedy.

- Pursuant to the Department's Technical Requirements for Site Remediation [N.J.A.C. 7:26E-5.1(e)], the person responsible for conducting the remediation shall treat or remove free product and residual product to the extent practicable or contain free product and residual product when treatment or removal is not practicable. Monitored natural attenuation of free product and residual product is prohibited. The Department considers this provision of our regulations an Applicable or Relevant and Appropriate Requirement (ARAR), and EPA has not adequately evaluated excavation and or ex-situ treatment in the field through pilot testing of the free product. Until further evaluation is completed, the DEP cannot determine that other options are not practicable. We strongly recommend that EPA conduct a detailed evaluation of all removal and ex-situ treatment options available.

- Allowing containment only of the free mercury is a non-permanent remedy and may potentially render the site unusable for future redevelopment or recreational use. Rendering a site or portion of a site unusable for future redevelopment or recreational use is in contravention of the Brownfield and Contaminated Site Remediation Act at N.J.S.A. 58:10B-12g(1), and against public policy.

- The Operation and Maintenance for the engineering control will be in perpetuity and there will be more risk of contaminant exposure/migration should the engineering controls fail.

The Department recommends that EPA continue to conduct further evaluation of separation and remediation technologies that may allow alternative disposal or storage options, as well as technologies and techniques that would control emissions during remediation.

The Department also requests that interim remedial actions be implemented to reduce ongoing mercury releases and air emissions. Pursuant to the Department's Technical Requirements for

Site Remediation (N.J.A.C. 7:26E-1.10), the person responsible for conducting the remediation has a responsibility to identify the need for any interim remedial measure necessary to remove, contain, or stabilize a source of contamination to prevent contaminant migration and to protect the public health and safety and the environment.

As we have discussed, the Department may support a plan for the containment of the free mercury contaminated area as an Interim Remedial Action using engineering and institutional controls. The interim remedial action must be reevaluated every 5 years to determine if new technologies or disposal locations can be used to address the free mercury on the site.

Should you wish to discuss this matter further please feel free to contact me at (609) 292-1250.

Sincerely,

Mark J. Pedersen
Assistant Commissioner
Site Remediation and Waste Management Program