



**City of Cleveland**

Frank G. Jackson, Mayor

Department of Public Health  
Office of the Director  
1925 St. Clair Avenue  
Cleveland, Ohio 44114-2080  
216/664-2324 • Fax: 216/664-2197  
www.cleveland-oh.gov

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Docket Management Facility (USCG-2006-25767)  
U.S. Department of Transportation  
Room PL-401  
400 Seventh Street SW  
Washington, DC 20590-0001

**Re: Docket No. USCG-2006-25767**  
**Comments of City of Cleveland, Ohio**  
**Regarding Live-Fire Gun Exercises on Lake Erie/Great Lakes**  
**By Electronic Delivery Web Site Docket Management System at <http://dms.dot.gov>**

Dear U.S. Coast Guard:

I am writing on behalf of the City of Cleveland, Ohio regarding the United States Coast Guard's proposal to establish safety zones to conduct live fire gun exercises on Lake Erie/Great Lakes. Cleveland believes that an environmental impact statement (EIS) should be completed prior to approval of any live-weapons firing zones as proposed, because the proposal presents unacceptable potential impacts to public health and associated increased costs of water treatment by the Cleveland Division of Water.

The Preliminary Health Assessment (PHA) identified uncertainties due to incomplete information. For example, the PHA contains the following explanation: "Training activities conducted in areas of high current and high rates of deposition immediately downstream have the potential to produce areas of deposition unaccounted for in the current analysis." (PHA at 8-1.) It concludes these areas should be avoided. Due to the hypothetical and generic nature of the PHA though, it does not say how.

Lake Erie is the source of drinking water for the greater Cleveland area. As the drinking water purveyor for the greater Cleveland area, the Division of Water has a vested interest in protecting the quality of the water in the lake. The water quality of the lake has a direct impact on the Division of Water's operational costs, customer satisfaction, and the health and safety of the population of the greater Cleveland area.

Just as areas of high current and high rates of deposition have the potential to produce areas of deposition unaccounted for, other factors not identified in the study indicate further that the risk

has been underestimated. For example, factors such as weather changes and thermocline were not identified or analyzed.

Every summer, a thermocline forms in Lake Erie. The depth at which it forms varies from year to year depending on spring weather patterns when the water is rapidly warming. In years when the thermocline forms at deeper levels, the water below it can be depleted of oxygen. That causes the water to more readily dissolve particulate material in the lake than it would under normal conditions.

In addition since Lake Erie is shallow enough, factors such as high winds, which occur in the region, cause the water to shift around. That happened this past summer and the Division of Water, along with other water systems that use Lake Erie, drew in water from below the thermocline that contained high levels of manganese and iron. Conventional treatment processes were not completely effective on this water due to its chemistry changes. It also caused customers to complain about the yellowish appearance of the water.

Even when high winds are not present, normal water cooling in the winter and autumn will mix the layers on either side of the thermocline. That means that the water with higher levels of inorganics and nutrients become part of the surface circulation patterns in the lake and accessible to water intake structures.

The current proposal allows thousands of pounds of toxic lead to be deposited in the four zones in Lake Erie. According to the PHA the deposition could be as high as 43,000 rounds of 7.62 mm lead-containing bullets per station annually. (PHA 3-1.) Since each bullet contains approximately 76% lead, the deposition would be approximately 698 pounds of lead per station annually. In addition, the PHA does not account for already-existing background levels of inorganics or the potential for an increased weathering rate of the lead core in contact with copper.

In addition, without first identifying and analyzing the alternatives to live firing of lead-containing bullets, the PHA's approach to considering the risk from lead as a result of fish ingestion is not justified. The PHA itself acknowledges that the U.S. EPA "concluded that it was inappropriate to develop an RfD for this compound." (PHA 6-3.) That is because, as the Center for Disease Control has stated, there is no apparent threshold below which adverse effects of lead not occur. Even low levels of lead are harmful and are associated with decreased intelligence, impaired neurobehavioral development, decreased stature and growth, and impaired hearing acuity. It recommends that the focus be on eliminating all lead exposures in children. (<http://www.cdc.gov/nceh/lead/factsheets/leadfcts.htm>; <http://www.cdc.gov/nceh/lead/CaseManagement/caseManage chap1.htm>.)

In Cleveland, lead poisoning is the most significant environmental problem facing our children. There are an estimated 5,000 children in Cleveland with elevated blood lead levels. One out of five children have blood levels that are elevated. There are 19,533 children estimated to have blood lead levels at or above 5 mcg/dl, a proposed new criterion for lead poisoning. Cleveland has spent millions of dollars, since lead was banned in paint and other products, trying to remove lead from the environment.

The National Environmental Policy Act (NEPA) provides for an environmental impact analysis so that unacceptable risk levels can be minimized and alternatives considered to reduce significant environmental health risks. The source material that an EIS would provide is justified and necessary to properly analyze the health impacts, particularly from adding additional lead to the environment and source of drinking water.

In addition, an EIS should also consider the project's impact on other areas of the environment that NEPA identifies as having not previously been given enough attention, such as maintenance of natural systems. The proposed zones coincide with the three main north-south migratory routes over Lake Erie. The PHA indicates these factors were not considered and should be avoided, but does not include a plan on how these factors should be adequately considered and avoided.

In conclusion, there are too many unknowns regarding significant factors such as the public health impacts from lead deposition over the next five years and further into the future so further study is necessary. Without further study, including an analysis of the alternatives, those risks also present unacceptable associated risks of increased costs for treatment chemicals, necessity to install additional treatment, and customer dissatisfaction.

Very truly yours,

/s/ Matt Carroll  
MATT CARROLL  
Director  
Department of Public Health  
City of Cleveland

Cc: Ken Silliman, Chief of Staff  
Darnell Brown, Chief Operating Officer  
Valarie McCall, Chief of Government Affairs  
Julius Ciaccia, Director of Public Utilities  
Robert J. Triozzi, Director of Law  
Shirley Tomasello, Assistant Director of Law  
Andrew Watterson, Sustainability Manager