



## WOODS HOLE OCEANOGRAPHIC INSTITUTION

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Dear Senator Frank Padavan &  
Councilman Dan Halloran-  
02-27-2010.

Here is my testimony based on my findings pertaining to the construction activities associated with the paint remediation project on the Throg's Neck Bridge, located in Bayside Queens New York. I am a local resident living in College Point Queens New York, and hold an academic adjunct appointment at Columbia University, in New York City. I am also a marine scientist conducting research at the Woods Hole Oceanographic Institute in Cape Cod MA, where I focus on the persistence of environmental toxins, and marine diseases within coastal environments globally.

I conducted a field study and sample collection for the identification of lead (Pb+ and TBT *Tributyl tin*) along the coastal zones between Crider Point in North East Whitestone located at the Throgs Neck Bridge Park, and Fort Totten, Bayside New York. What we have found was, widespread paint chip debris raining down from improper construction activities throughout the park walkways, wetlands coastal zones, water bodies, under the current construction under the Throgs Neck bridge and Park.

Our results vary from the collection of surface soil samples taken on the top 3 cm of surfaces within the park and wetlands.

We tested for the "Heavy Metal" targets provided by the New York State Department of Environmental Conservation (NY DEC). These data were compared to the DEC's TAGM 4046 & Sub-Part 375 soil concentration criteria for; ecological resources, restricted and unrestricted use. Our study reveals that there were detectable levels for lead and tin. The levels for lead and tin seem to be exceeding the values found in DEC Sub-Part 375 for the protection of ecological resources, and unrestricted use, which is 63ppm. Our results show levels between 40ppm and 450ppm respectively for paint chip specimens collected on the surface of the soil and sandy beach. It is important to note that these components, fall within the eastern USA background levels for soil under or in residential developments, thereby passing the NY DEC TAGM#4046 criteria for RCRA compounds, HOWEVER, this is not passing for the protection ecological resources and unrestricted use.

**\*\*IMPORTANT NOTE:** according to State DEC, solidwaste division in Stonybrook NY; "blasted or scrapped paint chips containing any levels of lead or tin are unacceptable at any concentration". This is due to the pathway of exposure into the tissues of humans, which is highly probable. This is especially true for the walk-ways, sports fields and wetlands surrounding the sample locations. Other State DEC violations include; construction waste, equipment, pipes, piles of snow mixed sand, mixed construction dirt and debris that has a odor of petroleum be immediately covered with blue tarps followed by safe removal and sent to Clean-Earth Waste Disposal Corp. ECL §15-0505 and 6NYCRR Part 608 prohibit the excavation and placement of fill

"uncovered" in the navigable waters of the State of New York in the absence of a permit, and ECL §25-0401 and 6NYCRR Part 661 prohibit the alteration of any regulated tidal wetland or adjacent area without a permit from DEC

### ***Federal EPA Requirements For Lead***

Common renovation activities like sanding, cutting, and demolition can create hazardous lead dust and chips by disturbing lead-based paint, which can be harmful to adults and children. To protect against this risk, on April 22, 2008, EPA issued a rule requiring the use of lead-safe practices and other actions aimed at preventing lead poisoning (<http://www.epa.gov/fedrgstr/EPA-TOX/2008/April/Day-22/t8141.htm>). Under the rule, beginning in April 2010, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination. We feel that the above ruling was and is not being followed by the MTA in our community, and that the construction practices being used are not in compliance with the Federal EPA.

Technical and Administrative Guidance Memorandums (TAGMs) and Sub-Part 375 are established by DEC's Department of Environmental Remediation. TAGM 4046 sets cleanup objectives specific to soil matrices, so as to promote chemical levels that prevent detrimental effects on ecological, human health and seepage into groundwater.

### **Federal EPA on the Health Effects and Ecological Effects of TBT:**

Tributyl tin (TBT) has been used as an anti-fouling biocide and as a fungicide in paints. It is a restricted use pesticide in the United States. In 1989, the registration uses of tributyl tin were revised under the Pest Controls Product Act to prohibit its use. TBT is extremely toxic to aquatic life and is an endocrine-disrupting chemical that causes severe reproductive effects in aquatic organisms, especially in the state protected wetlands of the Throgs Neck Bridge Park. TBT is extremely stable and resistant to natural degradation in water. Because of its chemical properties and widespread use as an antifouling agent, concerns have been raised over the risks it poses to both freshwater and saltwater organisms. January 5, 2004 EPA published in the Federal Register a final ambient acute and chronic water quality criteria document for tributyltin (TBT).

In conclusion; we recommend that the MTA clean up the lead paint chip debris along the wetlands, ball fields and park walk ways in and around Throgs Neck Bridge Park.

*Here is a recommended clean-up protocol of the parks before the sports season begins this spring.*

Cleanup Procedure for Lead paint chips, metal paint chip partials, containing lead and TBT:

1. Mark off transect area to be cleaned up.
2. Map out, grid, and section off area .
3. Manually comb area picking up any Metal and Styrofoam pieces
4. Water all areas being remediated to suppress dust
5. Using a high powered vacuum span field to pick up any partially starting with first pass North to south. Repeat if necessary in a West and East direction.

6. Fill in any low spots to prevent water settling.
7. Over seed with approved NYCDPR seed.
8. Fertilize and apply topical layer to NYCDPR specifications. Hydroseed areas larger than 10 sq/ft.
9. Test all dirt piles along the wetland adjacent area, followed by removal to a secure location that accepts solid waste under RCRA. --

Thank You,

Dr. James M. Cervino