



Former Wolff Alport Chemical Company Multi Agency Response

Participating Agencies:

**U.S. EPA, ATSDR, NYS DOH,
NYC DOHMH, NYS DEC & NYC DEP**





Former Wolff Alport Chemical Company Multi Agency Response

U.S. EPA Region 2: Cecilia Echols, Community Involvement Coordinator: Intro

NYC DOHMH-Andy Karam, Health Physicist: Site History & Health Effects

U.S. EPA Region 2: Paul Giardina, Chief, Radiation & Indoor Air Branch: Health Effects

U.S. EPA Region 2: Eric Daly & Michael Ferriola, On-Scene Coordinators: Response Actions

U.S. EPA Region 2: Cecilia Echols: Questions & Answers





WHY WE ARE HERE

- **Previous sampling/testing, no immediate risk**
- **Previous outreach efforts by NYC**
- **EPA taking response actions within the coming month**
- **EPA performing additional assessments**
- **Messages for the public & workers**



Aerial Image of Former Wolff Alport Site





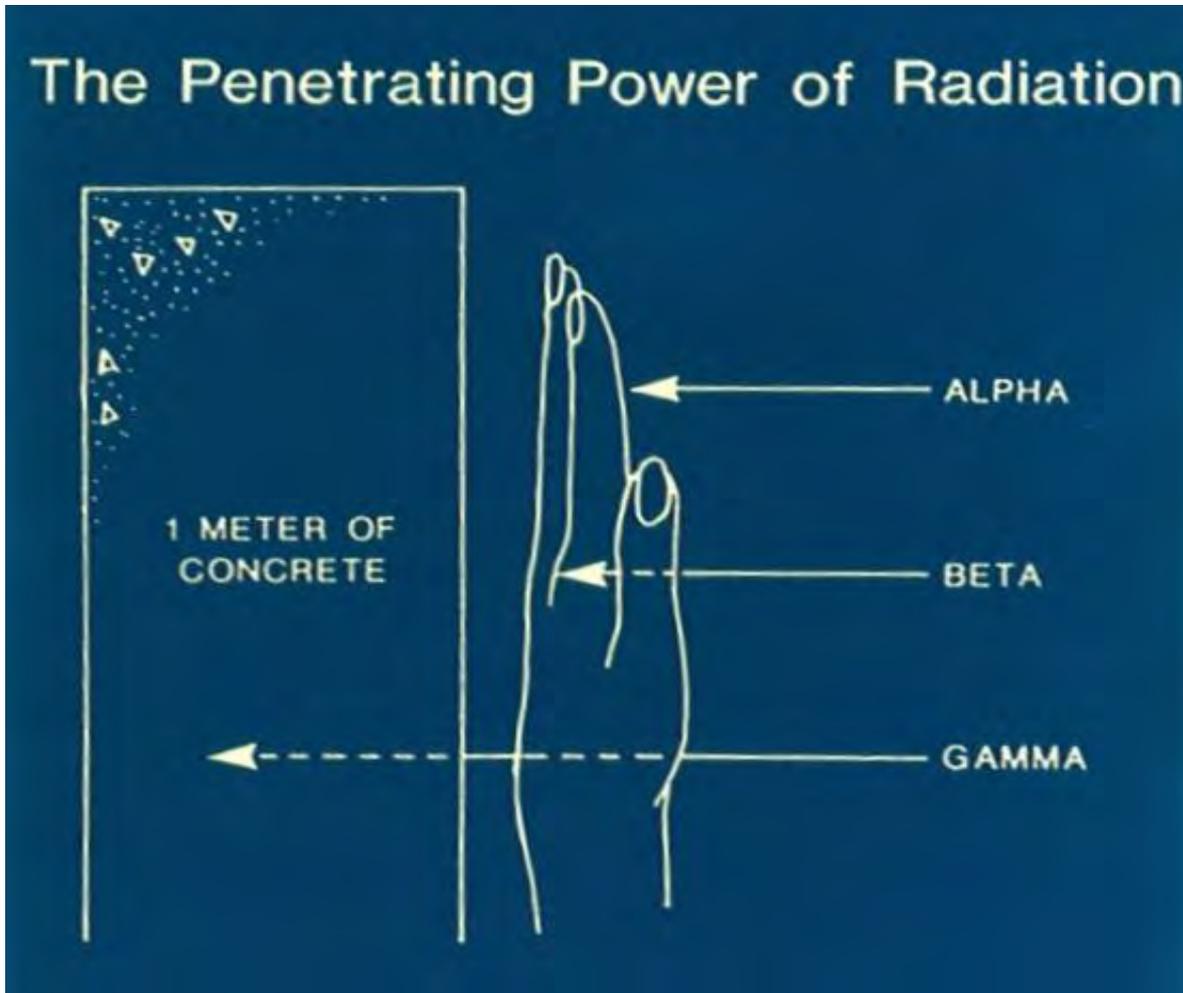
NYC DOHMH

- 1930s-1950s: Wolff-Alport became contaminated with thorium from activities performed at the site
- Some work was performed under contract to the Manhattan Project and the Atomic Energy Commission
- Preliminary radiation surveys & site investigations performed between 2007-2010 by NYC and NYS. EPA confirmed results
- EPA study is on-going



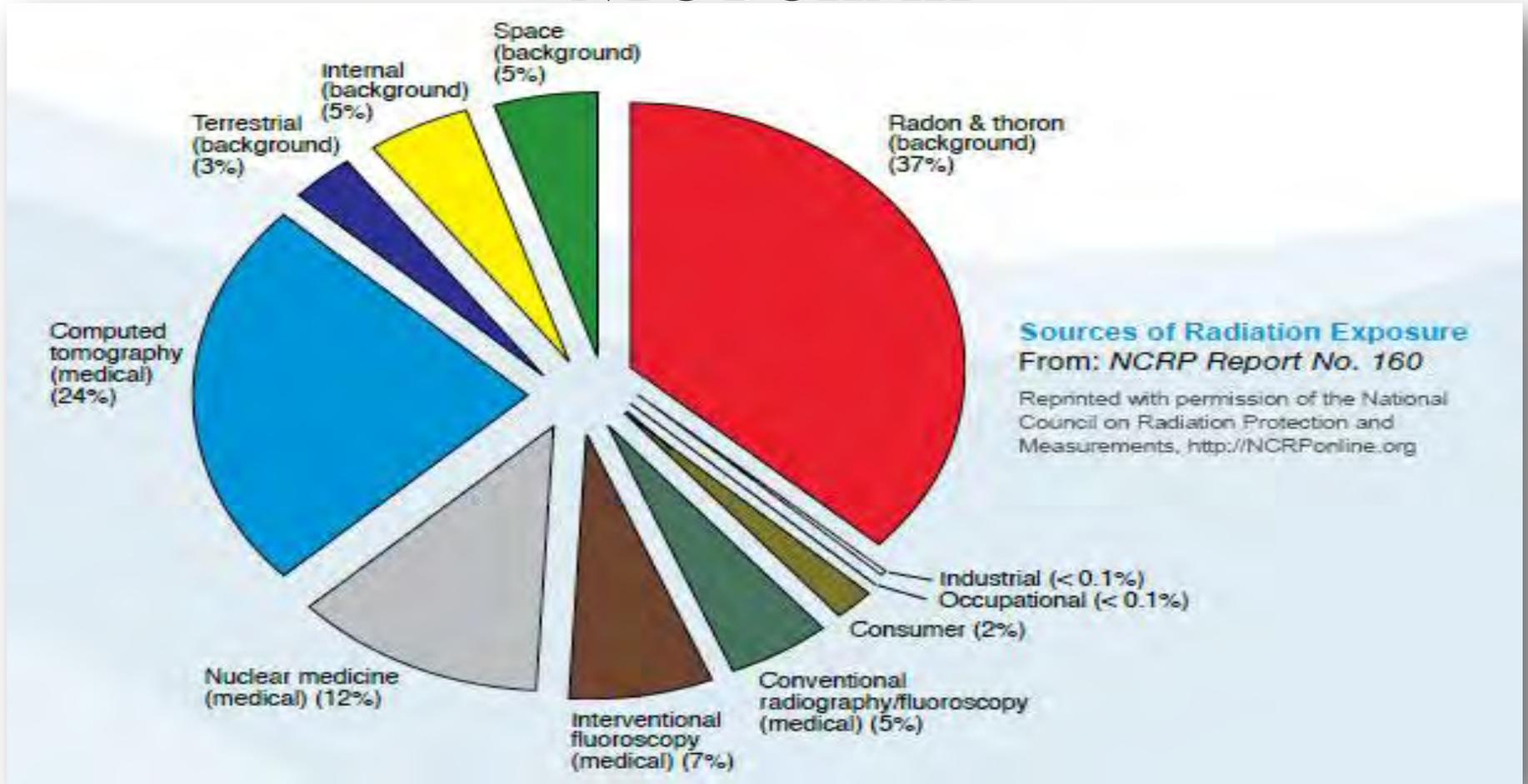


NYC DOHMH





NYC DOHMH



Average annual radiation dose per person in the U.S. is 620 mrem
NYC and NYS annual radiation limits on licensed activities is 100 mrem



NYC DOHMH & U.S. EPA

- Former Wolff Alport site poses no short term risk to workers or the public
- Long-term risk from a lifetime of exposure to this level of radiation is low:
 - Agencies are continuing to investigate the site
 - EPA estimates that receiving 1 millirem/year (1,000 microR/year) gives a person 1 chance in 1,000,000 of developing cancer per year
- As Low As Reasonably Achievable (ALARA): Goal is to keep radiation exposure As Low As Reasonably Achievable.





ATSDR Recommendations

Conclusions

- **Radiological contamination is under building structures, beneath the railroad spur property and in/around city sewers**
- **Radiological contamination is under the sidewalks along Irving Avenue**
- **Workers may receive slightly elevated radiation exposure**
- **Pedestrians who regularly use the sidewalk may receive slightly elevated radiation exposure**

Recommendations

- **Thoroughly characterize underlying soils**
- **Remove business supplies from Primo storage area to protect workers**
- **Reduce work on the sidewalks**
- **Limit time in city sewers**
- **Ventilate basements to reduce radon accumulation**



State Refers Matter to U.S. EPA

- NYS DOH informed the NYS DEC that action needs to be taken to address potential health impacts posed by past uses and releases of radioactive materials
- August 31, 2012 letter: NYS DEC requested that the US EPA undertake measures to address the potential for radiation exposures identified during investigations conducted by NYC DOHMH, NYS DEC, and U.S. EPA





U.S. EPA Response Program

- **Develops, implements and coordinates activities under the Superfund law**
 - **Site evaluation, expedited response actions, immediate removals and long-term response**
 - **Focal point for all emergency response and emergency contingency planning activities**
 - **Spill control and monitoring programs under the Clean Water Act**
 - **Resource Conservation and Recovery Act corrective action program**





Short Term Response Actions by EPA in cooperation with NY City & NY State

Radon Air Sampling

- **NY City:** performed drive-around radiation surveys and selected Radon testing in building basements
- **No indication of elevated radiation or radon levels in occupied spaces away from site property**
- **Non-Intrusive Activated Charcoal adsorption devise (canisters staged for 48 hours)**
- **Potential installation of radon mitigation system, dependent upon sampling results**
- **4 picoCuries per liter is a guidance level for radon in residences**
- **Future survey and sampling in these areas are designed to confirm previous results**





Short Term Response Actions by EPA, in conjunction with NY City & NY State

Delineation of elevated areas of radiation with NYC DOH & NYS DOH

- **Inside designated buildings (Physical survey and mark-out of exact areas with elevated radiation levels on floor)**
- **Along Irving Avenue sidewalk (Mark out exact areas with elevated radiation levels on concrete surfaces)**
- **Railroad spur property – Evergreen branch of Lot # 31 (Mark out exact areas with elevated radiation levels on ground surfaces)**





Aerial Image of Former Wolff Alport Co.





Short Term Response Actions by EPA, in conjunction with NY City & NY State

Railroad spur (Evergreen Branch of Lot 31)

- **Removal of equipment staged on this lot and brush clearing**
- **Property boundary survey**
- **Delineation of “hot spots” (elevated radiation levels on ground surface)**
- **Chain link fence installation**
- **Inner shielding with additional fencing or concrete slab**





Short Term Response Actions by EPA, in conjunction with NY City & NY State

Shielding:

- **Test shielding methodology using steel plates and/or concrete**
- **Feasibility of shielding in each location as remedy to reduce exposure of gamma radiation to workers and public**
- **After test shielding application, development of formal shielding plan for interior building floors and Irving Avenue sidewalk**
- **Present plan to property owners**





How to Reduce Your Radiation Dose-Time, Distance, Shielding

- **Time - Limit time to lessen exposure/dose received**
- **Distance - Maintain safe distance**
- **Shielding - High density materials (i.e. Steel plates and/or concrete materials)**
- **Keep radiation dose As Low as Reasonably Achievable (ALARA)**





Contact List

Cecilia Echols, US EPA Community Involvement Coordinator, 212-637-3678

Eric Daly, US EPA On-Scene Coordinator, 732-321-4350

Mike Ferriola, US EPA On-Scene Coordinator, 732-321-4342

Oleg Povevko, US EPA Radiation & Indoor Air Branch, 212-637-3746

Jeanine Prud'homme, NYC DOHMH, 212- 442-9994

Andy Karam, NYC DOHMH Health Physicist, 212- 788-9810

John Abunaw, NYS DEC, 518-402-8776





WEB SITES

U.S. EPA Wolff Alport Website: <http://www.epa.gov/region02/waste/wolff/>

U.S. EPA Radon website: <http://www.epa.gov/radiation/radionuclides/radon.html>





Questions and Answers





US EPA ERRD: On-Scene Coordinator

- U.S.EPA Region 2 has approximately 40 On-Scene Coordinators
- Region 2: New York, New Jersey, Puerto Rico and the U.S. Virgin Islands
 - National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300, aka NCP)
 - On-Scene Coordinators manage, direct, and coordinate:
 - Multi-jurisdictional response actions to oil spills
 - Hazardous substance releases
 - Radiological incidents
 - Natural disasters
 - Terrorist events





US EPA OSC Personnel Resources

- National Decon Team (NDT)-Building, Structures
- US Coast Guard (USCG) Strike Teams-Three Teams throughout US
 - USEPA Environmental Response Teams (ERT)-NJ, NV & OH
- National Air and Radiation Environmental Laboratory (NAREL), AL-Fixed & Mobile Labs
 - Radiation and Indoor Environments National Laboratory (RIENL)-Fixed & Mobile Labs
 - Response Support Corp. (RSC)-Composed of various EPA disciplines
 - Radiation Health Physicist
- Regional Emergency Operation Center (REOC), Edison, NJ-Support Staff for ICS
 - EPA's Radiological Emergency Response Team (RERT)
 - Contract Laboratory Support (CLP)-Sample Analysis
 - EPA Edison Laboratory-Sample Analysis
 - Removal Support Team (RST)-Technical Support (Field and Administrative)
 - Emergency Response and Removal Support (ERRS) Contractor

