

Garfield Ave. Site Cleanup Community Protection and Exposure Prevention Program Public Meeting

**May 20, 2010
6:30 p.m.**

**Mary McLeod Bethune Life Center
140 Dr. Martin Luther King Jr. Drive
Jersey City, N.J.**

Chromium Cleanup
Partnership

N.J. DEPARTMENT OF ENVIRONMENTAL PROTECTION
CITY OF JERSEY CITY
PPG INDUSTRIES
COURT-APPOINTED SITE ADMINISTRATOR

Meeting Overview

- n **Welcome / Introduction**
- n **Updates / Housekeeping**
- n **Exposure Prevention Plans**
- n **Community Exposure Prevention
and Testing Program**
- n **Q&A Session**

Updates/Housekeeping

- n **Sign-up sheets, handouts**
- n **Jersey City Supplier Expo**
- n **Residential Inspection Program Update**
- n **Garfield Ave. sidewalk closure**
- n **Truck routing**
- n **Next update meeting mid-to-late June**
- n **Mayor's Citizen Advisory Board**

Work Beginning This Summer ... What to Expect

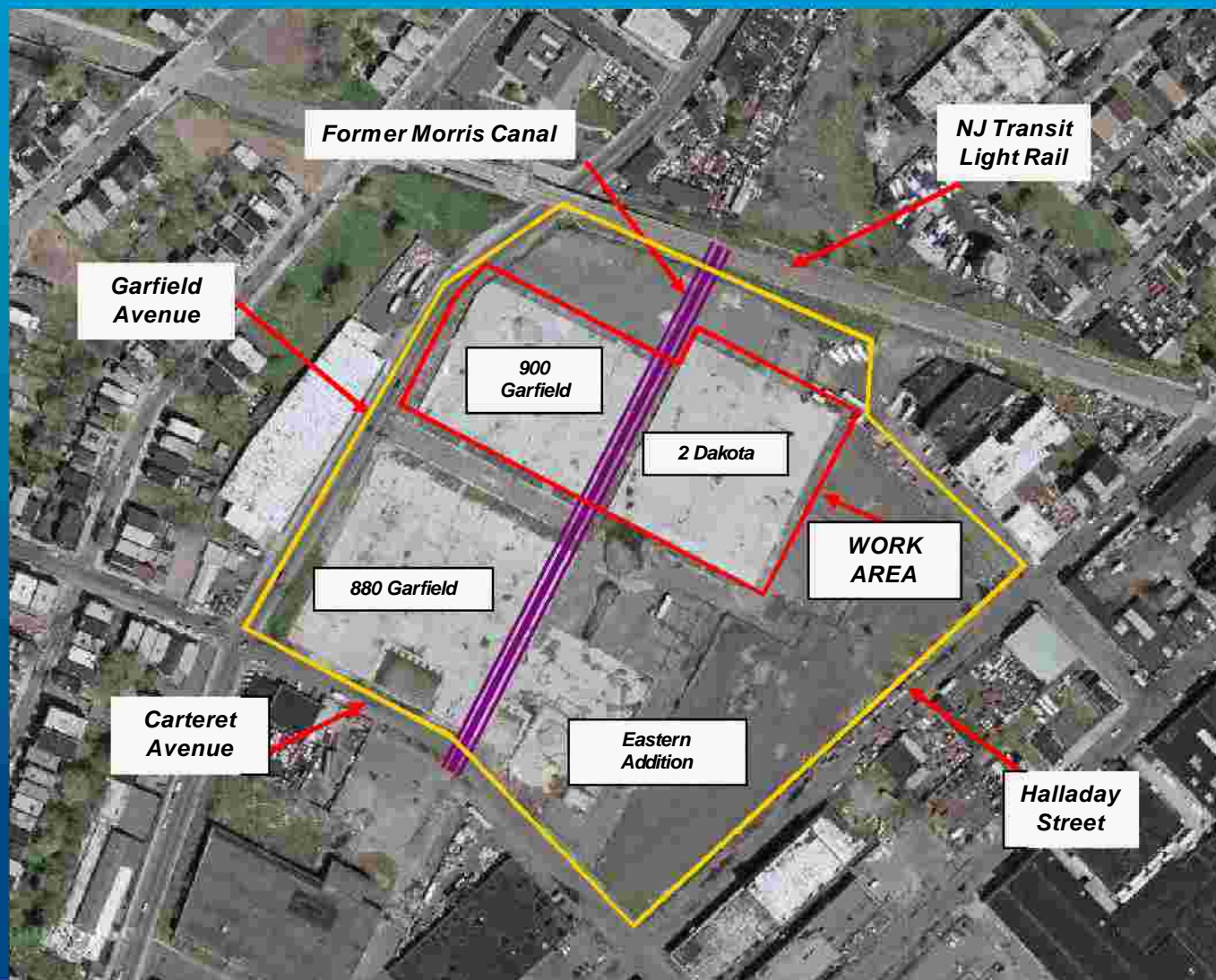
May-June 2010 (Site Preparation)

- n On-site paving of truck routes
- n Utility pole installation / power distribution on-site
- n Additional construction trailers on-site
- n Air Monitoring Station installation

June 2010 – February 2011 (Excavation and Removal)

- n Removal of highly contaminated waste begins
- n Heavy construction equipment on-site
- n High level of activity

Garfield Avenue Site



Comprehensive Exposure Prevention Plans

- n Multiple, overlapping prevention and protection plans
 - n Dust Control Plan
 - n Air Monitoring Plan
 - n Traffic Safety and Control Plan
 - n Site Health & Safety Plan
 - n Community Exposure Prevention and Testing Program

Exposure Prevention Plans - Dust Control

Key elements of Dust Control Plan to prevent community and worker exposure

- n Proven, comprehensive dust suppression methods
- n Water misting of work areas
- n Truck traffic only on paved areas
- n Spilled soil, if any, to be cleaned up immediately
- n Stockpiles covered
- n On-site dust control technicians

Exposure Prevention Plans - Continuous Air Monitoring

Key elements of protective Air Monitoring Plan

- n Proven detection and prevention system
- n Action level for hexavalent chromium almost 10 times tougher than Honeywell site
- n Both permanent and mobile Air Monitoring Stations will be continuously checking to make sure that safe conditions are maintained during all cleanup activities
- n Stations will monitor conditions and, if conditions warrant, will protect surrounding residents by requiring that dust suppression measures be increased or work be halted

Exposure Prevention Plans - Continuous Air Monitoring

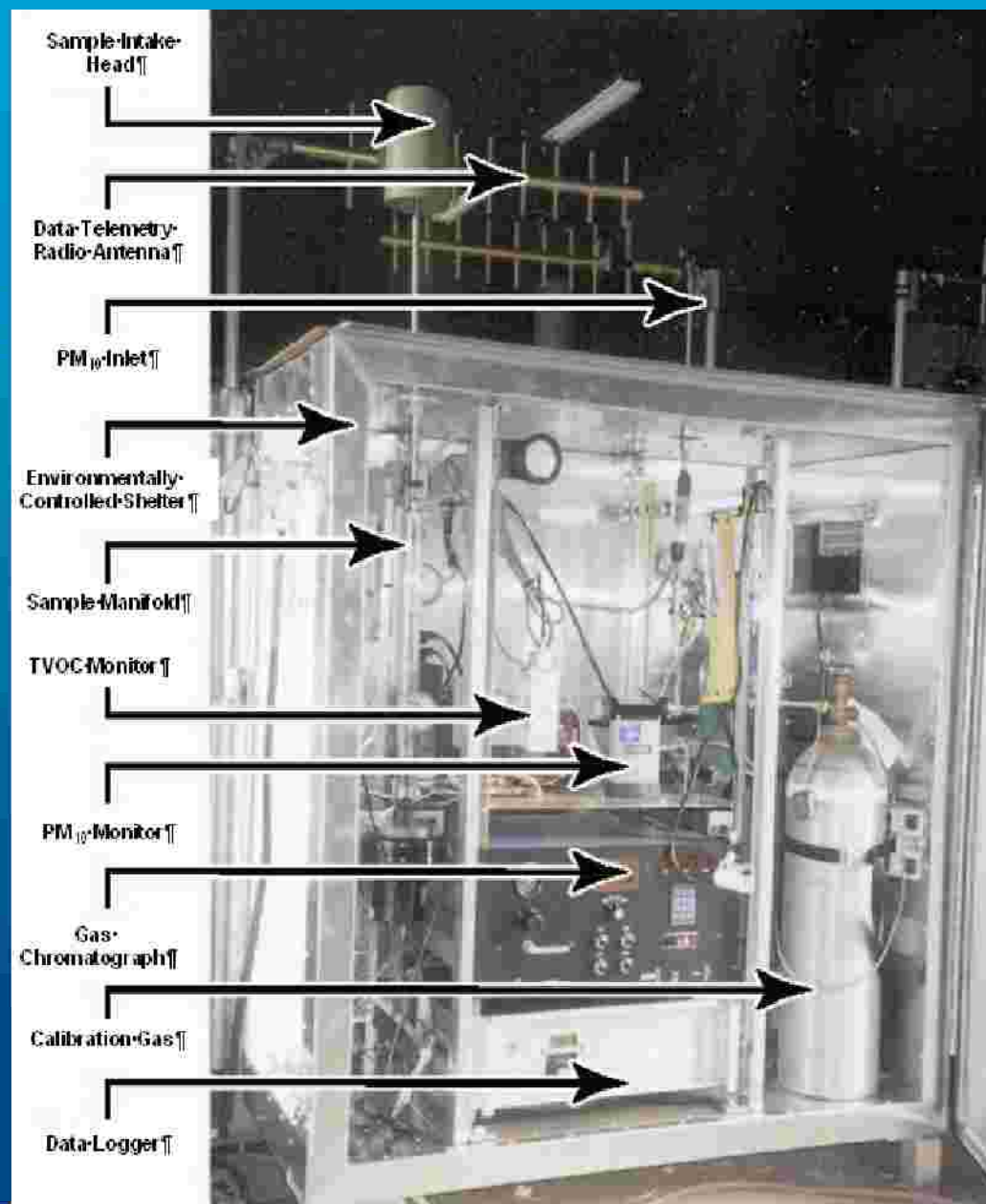
Key elements of protective Air Monitoring Plan

- n By imposing action levels well inside the site – at the work zone, not just the site perimeter – nearby residential properties are protected
 - n Hand-held air monitors at work area
- n Fulltime Air Monitoring technicians
- n Air monitoring results verified by Independent Technical Consultant
- n Results to be posted on Chromium Cleanup Partnership Web site

Locations for Air Monitoring Stations



Fixed Fenceline Air Monitoring Station



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Mobile Air Monitoring Station



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Exposure Prevention Plans - Traffic Control

Key elements of Traffic Safety & Control Plan:

- n Waste material will be safely removed from the site using trucks whose beds are lined, covered and contained
- n All trucks will be washed twice and inspected prior to leaving the site to prevent soil from being tracked off-site; washwater collected, containerized and disposed off-site
- n Truck traffic routed to minimize community impacts and noise

Exposure Prevention Plans - Site Health & Safety

Key elements of Health & Safety Plan:

- n Community and worker health and safety designated as top priority
- n Safe work practices & procedures – workers and public protection
- n Work practices & procedures meet OSHA rules
- n Storage, handling, and use of materials and equipment will be strictly controlled
- n Site will remain fully fenced with 24-hour security

Community Exposure Prevention and Testing Program

- n Testing and detection actions supplementing Exposure Prevention Plans
- n Based on recommendations made by independent, Court-appointed Site Administrator in “Health Exposure Study Recommendation” report

Community Exposure Prevention and Testing Program

n **Three-Tier Program**

- n **Expanded Air Monitoring Program** to ensure the protection of the surrounding community
- n **Community Exposure Testing Program** to determine whether the community is being exposed to hexavalent chromium during site cleanup
- n **Residential Inspection Program Results Mapping Project** to outline areas of soil contamination, if detected

Community Exposure Prevention and Testing Program

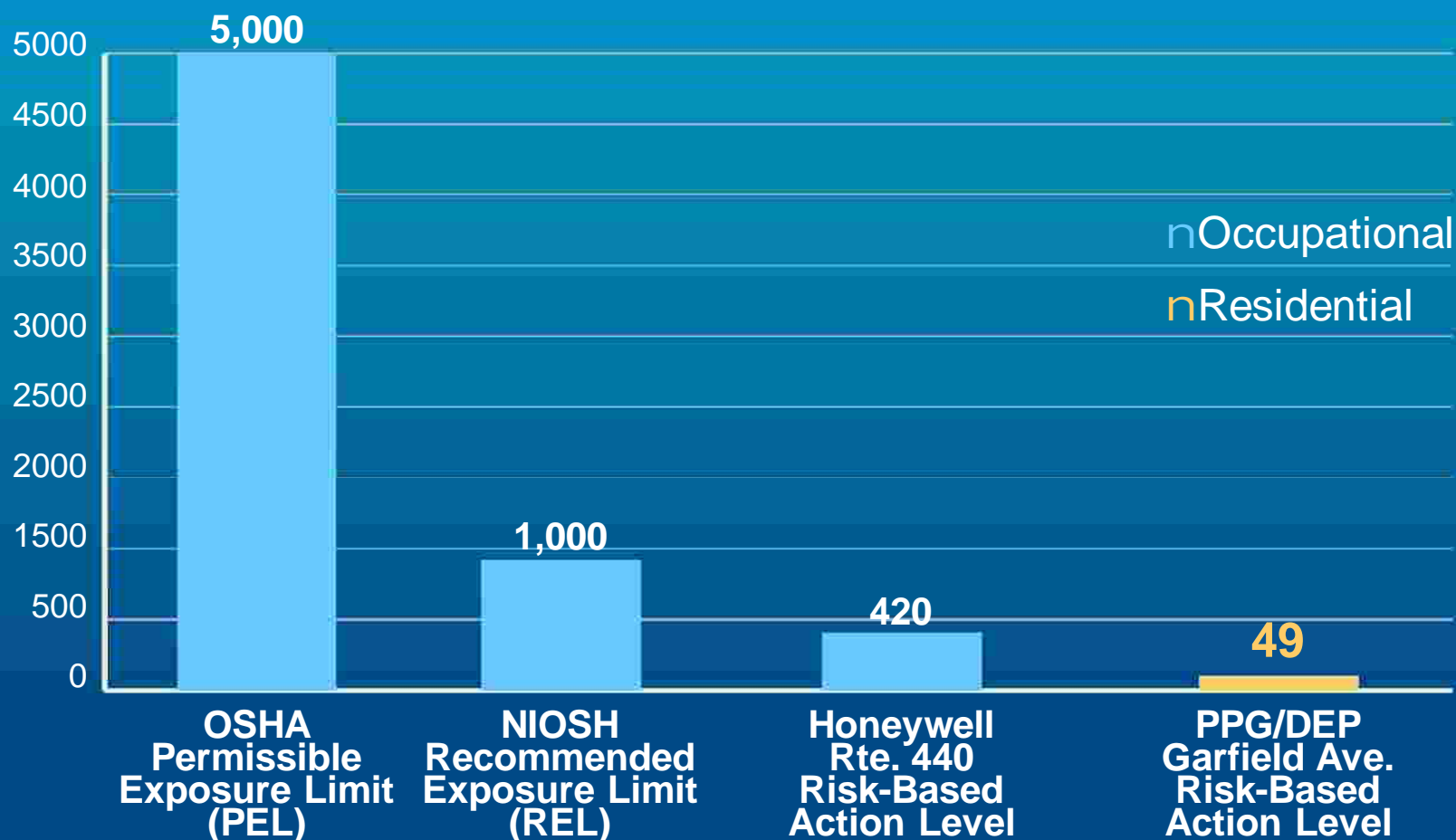
n Expanded Air Monitoring Program

- n The protective Action Level for this cleanup was set by DEP and is almost 10 times tougher than Honeywell (Route 440)
- n Protective Action Level will require that dust suppression measures be increased or work be halted to prevent exposure to surrounding residents, if conditions warrant
- n Measure baseline conditions - current background levels of hexavalent chromium – before cleanup activities

Community Exposure Prevention and Testing Program

- n **Expanded Air Monitoring Program, cont'd.**
 - n Monitor and document airborne particulate and hexavalent chromium levels at on-site locations and post air monitoring data on the chromecleanup.com website
 - n Results reviewed and verified by Independent Technical Consultant

Comparison Air Exposure Limits, ng/m³



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Community Exposure Prevention and Testing Program

- n Community Exposure Testing Program
 - n Blood testing is being offered in response to community concerns about exposure during cleanup
 - n Blood testing will detect recent exposure (last 4 months)
 - n Voluntary blood testing will be conducted before, during and after cleanup activities at the Garfield Avenue site in order to determine whether **community** exposure to hexavalent chromium changes during and after the cleanup

Community Exposure Prevention and Testing Program

- n Community Exposure Testing Program, cont'd
 - n To accurately assess a change in exposure patterns within the **community**, widespread participation is important - the larger the group, the more accurate the results
 - n If **individual** blood sampling results show a significant elevation, the participant will be contacted and efforts will be made to determine possible sources of exposure and will be offered a physical examination by a qualified physician to detect medical conditions that indicate exposure to hexavalent chromium

Community Exposure Prevention and Testing Program

n Community Exposure Testing Program, cont'd

- § Offered to residents living in the area south of Bramhall Avenue, west of Halladay Street, east of Ocean Avenue and north of Bayview Avenue
- n Program will be administered by EOHSI
- n Blood sampling done at Metropolitan Family Health Network clinic
- n Sampling done approximately every six months during site activity

Community Exposure Prevention and Testing Program

- n Community Exposure Testing Program, cont'd
 - n To establish a useful sample of current hexavalent chromium levels in blood, volunteers must be tested before significant cleanup activity begins at the end of June
 - n Program details will be thoroughly reviewed with individual volunteers before sampling begins
 - n Participants' privacy will be protected
 - n Sign up ends Friday, June 11

Community Exposure Prevention and Testing Program

- n Residential Inspection Program Results Mapping Project
 - n Share results through location maps, website
 - n Document extent of residential contamination, if any
- n Promote participation in EOHSI Dust Study
 - n Broaden participation to document current conditions
- n Data Integration
 - n Integrate results collected with existing data to provide more complete assessment of community conditions

How to Reach Us

n Phone: 201-777-2099

n E-mail: Info@chromecleanup.com

n Mail: Chromium Cleanup Partnership
P.O. Box 15981
Jersey City, N.J. 07305

n Visit: PPG's Garfield Avenue Renewal Company
334 Martin Luther King Drive
Tuesdays and Thursdays 10 a.m. - 2 p.m.

Settlement Overview

- n On June 26, 2009, DEP, Jersey City and PPG signed a settlement in Superior Court where they agreed to work together to cleanup PPG's chromium sites.
- n The agreement:
 - § Establishes a 5-year goal to clean up all 20 sites;
 - § Creates new position of an independent, court-appointed Site Administrator;
 - § Creates new position of an independent Technical Consultant;

Settlement Overview

n The agreement also:

- § Establishes residential site inspection and cleanup program for chrome waste;
- § Directs the Site Administrator to review existing health studies, consult with experts and recommend further actions, if necessary;
- § Requires PPG to make reasonable efforts to hire 20% of its cleanup workforce from Jersey City and to establish a training program for City residents; and
- § Requires parties communicate activities with affected community.

Health Experts Consulted, partial

- § **Barbara Beck**, PhD, DABT, FATS - Gradient Corporation and Harvard University
- § **Kathy Black, PhD** – Environmental & Occupational Health Sciences Institute
- § **Max Costa**, PhD - New York University School of Medicine
- § **Jerald Fagliano**, MPH, PhD - NJ Department of Health & Senior Services
- § **Michael Gargas**, PhD - formerly of Sapphire Group
- § **Michael Gochfeld**, MD, PhD - Environmental & Occupational Health Sciences Institute
- § **Sumi Hoshiko**, MPH - California Dept. of Public Health, Environmental Health Investigations Branch
- § **Janet Kester**, PhD - NewFields
- § **Paul Lioy**, PhD - Environmental and Occupational Health Sciences Institute
- § **Eileen Murphy**, PhD - NJDEP, Division of Science, Research & Technology
- § **Racquel Stephenson**, MPH - ATSDR Region 2
- § **Alan H. Stern**, Dr. PH - NJDEP Office of Science, Research & Technology
- § **Joan Strawson**, MS, JD - Toxicology Excellence in Risk Assessment
- § **Melvyn Tockman**, MD, PhD – H. Lee Moffitt Cancer Center and Research Institute, University of South Florida
- § **Marilyn Underwood**, PhD - California Department of Public Health, Environmental Health Investigations Branch
- § **Anatoly Zhitkovitch**, PhD - Brown University, Division of Biology and Medicine

NJ Health Studies reviewed, partial

- § *Medical Evaluation of Children and Adults of the Whitney Young Jr. School* (1989)
- § *An Assessment and Quantitative Uncertainty Analysis of the Health Risks to Workers Exposed to Chromium Contaminated Soils* (1991)
- § *The Health Hazards Posed By Chromium-Contaminated Soils in residential and Industrial Areas: Conclusions of an Expert Panel* (1991)
- § *Airborne Concentrations of Cr(III) and Cr(VI) from Contaminated Soils at Unpaved and partially-Paved Commercial/Industrial Sites* (1992)
- § *Chromium exposure assessment of outdoor workers in Hudson County, NJ* (1992)
- § *Microenvironmental Analysis of Residential Exposure to Chromium-Laden Wastes in and Around New Jersey Homes* (1992)
- § *Residential Exposure to Chromium Waste – Urine Biological Monitoring in Conjunction With Environmental Exposure Monitoring* (1992)
- § *Field Validation for Sampling and Analysis of Airborne Hexavalent Chromium* (1993)
- § *Designing a biological monitoring program to assess community exposure to chromium: Conclusions of an expert panel* (1993)
- § *Chromium Medical Surveillance Project: Final Technical Report* (1994)
- § *Urinary Excretion of Chromium Following Ingestion of Chromite-Ore Processing Residues in Humans: Implications for Biomonitoring* (1994)
- § *The Effect of Remediation of Chromium Waste Sites on Chromium Levels in Urine of Children Living in the Surrounding Neighborhood* (1995)
- § *Increased DNA-Protein Crosslinks in Lymphocytes of Residents Living in Cr-Contaminated Areas* (1995)
- § *Monitoring Human Lymphocytic DNA-Protein Cross-links as Biomarkers of Biologically Active Doses of Chromite* (1996)
- § *Background Air Concentrations of Cr(VI) in Hudson County, New Jersey: Implications for Setting Health-based Standards for Cr(VI) in Soil* (1997)
- § *Exposure to Chromium Dust from Homes in a Chromium Surveillance Project* (1997)
- § *Community Exposure and Medical Screening Near Chromium Waste Sites in New Jersey* (1997)
- § *The Association of Chromium in Household Dust with Urinary Chromium in Residences Adjacent to Chromate Production Waste Sites* (1998)
- § *Reduction in Residential Chromium Following Site Remediation* (2000)
- § *Analysis of Lung Cancer Incidence Near Chromium-Contaminated Sites in New Jersey (a/k/a Hudson County Chromium Sites)* (2008)
- § *Chromium Exposure and Health Effects in Hudson County: Phase I* (2008)
- § *Characterization of Hexavalent Chromium Concentrations in Household Dust in Background Areas* (2009)
- § *Derivation of an Ingestion-Based Soil Remediation Criterion for Cr⁺⁶ Based on the NTP Chronic Bioassay Data for Sodium Dichromate Dihydrate* (2009)