UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

US EPA RECORDS CENTER REGION 5
417414

MEMORANDUM

REPLY TO THE ATTENTION OF:

DATE: DEC 21 2011

SUBJECT: Enforcement Action Memorandum – Determination of Threat to Public Health and or the Environment at the Michael Reese Hospital/Carnotite Reduction Site
Located at 26th Street and Ellis Avenue, Chicago, Cook County, Illinois
(Site Spill ID # B5TJ, OU 01)

FROM: Verneta Simon, On-Scene Coordinator VS
Emergency Response Branch II – Removal Section 4

Eugene Jablonowski, Health Physicist EJ
Emergency Response Branch I – Field Services Section

THRU: Charles Gebien, Acting Chief
Emergency Response Branch II

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to document the determination of an imminent and substantial threat to public health and the environment posed by the existence of uranium and radium-contaminated soils on a portion the former Michael Reese Hospital and Medical Center (Michael Reese) property where the Carnotite Reduction Company was located in the vicinity of 26th Street and Ellis Avenue (Carnotite Site or the Site).[1] The Carnotite Site is approximately 3 acres of the northern end of the approximately 37 acres of the former Michael Reese Hospital and Medical Center, and is located in a historic Chicago neighborhood known as Bronzeville near the McCormick Place Convention Center. To date, U.S. EPA has not initiated any response actions at Carnotite OU 01 using the OSC $50,000/$250,000 delegation and warrant authority.

[1] The current response action determination should not be confused with the July 6, 2009 mercury spill response at this site known as the Michael Reese Hospital Mercury Spill incident. The City voluntarily cleaned up the mercury spill with U.S. EPA oversight.

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II. SITE CONDITIONS AND BACKGROUND

CERCLIS # ILN000510371

A. Site Description

1. Removal site evaluation

In the early 1900s, the Carnotite Reduction Company operated an elemental radium separation and refining facility on property that later became part of the former Michael Reese property in Chicago, Illinois. In 1979, the State of Illinois Department of Health, Division of Radiological Health, in cooperation with U.S. EPA, conducted a radiological surface survey of part of the Michael Reese property and located several areas of elevated radioactivity. The State and EPA personnel concluded that the contamination did not pose an immediate health hazard but should be taken into consideration prior to any future construction. In September 2008, the owner of Michael Reese filed a petition for bankruptcy protection in the U.S. Bankruptcy Court for the Northern District of Illinois. In anticipation of Chicago being selected to host the 2016 Olympic Games, the City of Chicago (the City) purchased the 37- acre former Michael Reese property in June 2009. The City planned to develop the property as the site of the Olympic Village. The City's bid for the 2016 Olympic Games, however, proved unsuccessful.

Prior to acquiring the former hospital property, the City conducted Phase I and Phase II environmental investigations. Those investigations did not identify or mention the radiologically contaminated area despite the prior state and federal investigation in 1979. On August 12, 2009, the Illinois Emergency Management Agency – Division of Nuclear Safety (IEMA-DNS fka Illinois Department of Nuclear Safety) performed a radiological investigation that confirmed the presence of radioactive contamination. IEMA-DNS recommended full characterization and remediation before any invasive demolition or construction activities were performed at the site. On October 5, 2009, U.S. EPA met with the City Department of Environment (CDOE) to discuss remediation of radioactive contamination at the Carnotite site. The City already had begun to demolish the former hospital buildings in anticipation of the property's redevelopment. Based on the October 5, 2009 meeting and follow up discussions and correspondence with IEMA-DNS, the City consented to U.S. EPA conducting a radiation survey at portions of the Michael Reese property. On December 10, 2009, U.S. EPA performed a gamma survey of areas of the Carnotite site not previously assessed by IEMA- DNS, using FIELDS' Rapid Assessment Technology (RAT) system and the ASPECT Gamma Environmental Mapper (GEM). U.S. EPA's survey confirmed the presence of radioactive contamination in the northern end of the former Michael Reese Hospital Campus, where the Carnotite Reduction Company was located although the exact property boundaries of the former Carnotite Reduction Company have not been established.

On November 3, 2010, the City submitted to U.S. EPA a draft scope of work for radiological assessment of the Carnotite site for U.S. EPA review and comment. On December 14, 2010 and January 13, 2011, AECOM, the City's environmental consultant, conducted surface gamma screening to delineate the surface radiological impacts and determine where the subsurface investigation should be targeted. AECOM conducted a subsurface investigation from April 11, through May 4, 2011. AECOM advanced a total of 215 borings and collected samples for radiological analysis. U.S. EPA Region 5's Field Environmental Decision Support Group (FIELDS Group) conducted on-site XRF screening of the AECOM-collected samples for metal contaminants. On October 7, 2011, the City of Chicago submitted an interim final draft of their subsurface radiological investigation results. Demolition of the Michael Reese Hospital and Medical Center has been completed. Only Building 1, of those buildings shown marked for demolition that appears on attached Figure 1 is still present. Its demolition scheduled for the first quarter of 2012.

2. Physical location

While the exact site boundaries are not known, the Carnotite Site is generally located at 26th and Ellis Avenue, Chicago, Cook County, Illinois (Figure A-2). The geographical coordinates for the Site are Latitude 41°50'43.40" North and Longitude 87°36'59.05" West. The approximate area of the Site, and the area of radiological investigations to date, is approximately 3 acres.

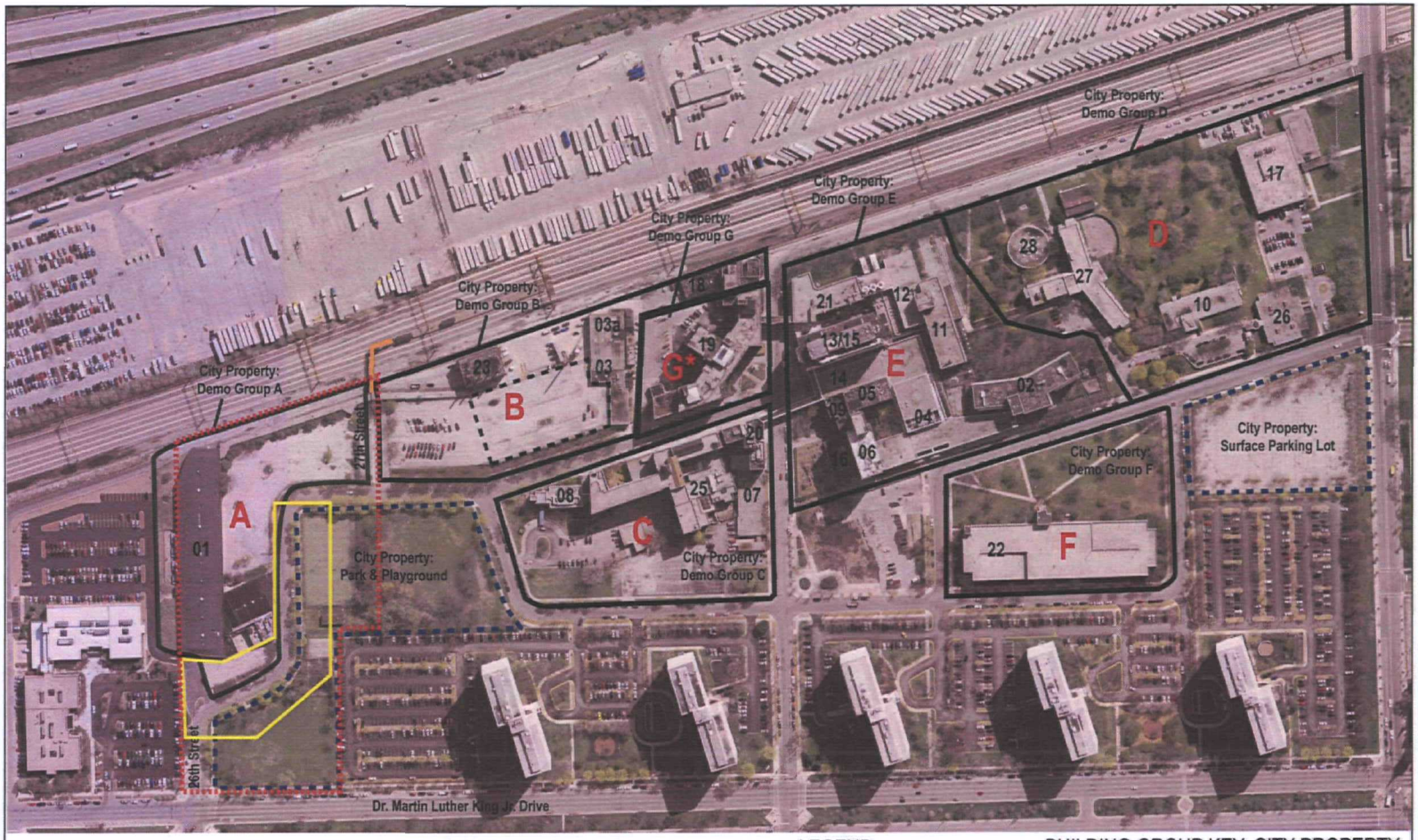
Immediately adjacent to the Carnotite Site are an active medical center, residential high-rise buildings, parks, and tennis courts. U.S. EPA performed a surface gamma radiation survey in December 2010 and confirmed the presence of radioactive contamination on the Carnotite Site. On page 4 is an aerial map of the former Michael Reese Hospital and adjacent associated properties; "Area A" denotes the general location of the former Carnotite site and radiological investigations to date.

An Environmental Justice (EJ) analysis was performed and the analysis is contained in Attachment I. The area surrounding the Michael Reese property and Carnotite Site was screened using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to U.S. EPA Region 5. The Carnotite Site is predominantly in a census tract of 2 with part of the driveway in a census tract of 3. Region 5 considers both portions to be a high-priority potential EJ area of concern.

3. Site Characteristics

The Carnotite Reduction Company was reportedly an elemental radium separation and refining facility that operated in the early 1900's in the vicinity of the southeast corner of East 26th Street and South Martin Luther King Drive, east of King Drive towards Ellis Ave. The actual address in the early 1900's was 2600 Inglehart Court,

however, Inglehart Court no longer exists. For the purposes of this Action Memorandum, the physical address will be East 26th Street and South Martin Luther King Drive.



1 HOSPITAL CAMPUS AERIAL IMAGE
SCALE: 1"=100'

FIGURE 1

BUILDINGS:

01 - Administrative Services Center
02 - Baumgarten Pavilion
03 - Bensinger General Service Building
03a - Laundry Facility
04 - Blum Pavilion
05 - Cummings Research Pavilion
06 - Dreyfuss Research Labs
07 - Emergency Department/Entrance
08 - Florsheim Professional Building
09 - Florsheim Library
10 - Friend Pavilion
11 - Kaplan Pavilion
12 - Kaplan Surgical Wing
13 - Klein Women's Hospital
14 - KND Building
15 - Kunstader Children's Hospital
16 - Laz Chapman Pathology Institute
17 - Levinson Building
18 - Linear Accelerator
19 - Main Michael Reese Building
20 - Mandel Clinic/Emergency Room
21 - Meyer House
22 - Parking Structure
23 - Power Plant
25 - Rothschild Center
26 - Siegel Institute
27 - Singer Pavilion
28 - Wexler Pavilion

LEGEND

* Abatement Only
Metra Pedestrian Bridge
Building Groups
City Property
Surface Scan Property
Surface & Downhole Logging Boundary

BUILDING GROUP KEY: CITY PROPERTY

A= 01
B= 03, 03a, 18, 23
C= 07,08,20,25
D= 10,17,26,27,28
E= 02,04,05,06,09,11,12,13,14,15,16,21
F= 22
G*=19

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PUBLIC BUILDING COMMISSION OF CHICAGO

Revision: No. | Description | Date | By
01 | DRAFT | 04/13/09

Project Number:
Drawn By:
Checked By:
Drawing File:
Date:
Scale:
File Path: P:\Projects\xxxxxxx

Project Title: MICHAEL REESE HOSPITAL
2929 S. ELLIS AVE, CHICAGO, IL 60616
Drawing Title: HOSPITAL CAMPUS AERIAL IMAGE

Drawing Number: A-001
— OF —
REV. –

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

The April/May 2011 radiological investigation conducted by AECOM (contractor for the City of Chicago) confirmed contamination previously identified by IEMA and U.S. EPA in 2009 and by the Illinois Department of Nuclear Safety (predecessor agency to IEMA) in 1979. Uranium, radium and other non-radiological contaminants are also present.

5. NPL status

This site is not on the National Priorities List (NPL).

B. <u>Other Actions to Date</u>

1. Previous actions

In 1979, the State of Illinois Department of Health, Division of Radiological Health and in cooperation with U.S. EPA, conducted a radiological surface survey of part of the Michael Reese property and located several areas of elevated radioactivity. The State concluded that there was no immediate health hazard but a sampling and analysis survey was warranted and that City should be notified so the contamination could be taken into consideration prior to construction in the area.

Since 2009, U.S. EPA also has reviewed and commented on radiation documents and workplans related to the Carnotite Site. In December 2009, U.S. EPA performed a surface gamma survey with the City of Chicago and IEMA present. In April and May of 2011, U.S. EPA was present on site for AECOM's subsurface investigation, and performed XRF screening of subsurface samples collected by AECOM.

2. Current actions

In addition to the radiation surveillance conducted to date described above, U.S. EPA has discussed planning, oversight and radiation monitoring of Building 1, the last building slated for demolition during the first quarter of 2012, and is preparing to discuss the next steps regarding the establishment of a cleanup objective for the site with the City of Chicago and IEMA.

C. <u>State and Local Authorities' role</u>

1. **State and local actions to date**

   The City's permit database is programmed to automatically give notice to any permit applicant seeking to perform subsurface work at the Carnotite site that radiation monitoring and appropriate health and safety precautions are taken prior to and during

any work at the Carnotite site. This permit notice is akin to the Streeterville Thorium Investigation Area permit requirements that the City established in 1999 for the Streeterville neighborhood of downtown Chicago.

The State of Illinois's role is described below in the following paragraph below.

2. Potential for continued State/Local response

As mentioned earlier, the predecessor agency to the current IEMA – DNS detected radioactive contamination in 1979, and confirmed the presence of radioactive contamination in August 2009. During a December 7, 2011, meeting between the City and Region 5 staff, the City stated that its present plan was to complete the demolition of Building 1 and then secure the site. The City also stated that it did not plan to conduct any environmental remediation beyond what was required to accommodate the demolition work and that radiation cleanup would be "pushed off" until redevelopment. The City stated that there were a multitude of competing plans for this property due to its location near the McCormick Convention Center and readily available access to streets and transportation. As a result of the competition for the property, City staff opined that redevelopment was not imminent. The City appeared willing to institute institutional controls to prevent intrusion or release of potentially contaminated subsurface soils. The City has not indicated that it will assess off-site properties.

III. THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT, AND STATUTORYAND REGULATORY AUTHORITIES

Conditions at the Site may pose an imminent and substantial endangerment to public health or welfare or the environment, based upon factors set forth in the National Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) Section 300.415 (b)(2). These conditions include:

a) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

IEMA, DOE and U.S. EPA each have confirmed the presence of buried uranium and radium contamination from industrial activities of the early 1900's at the Carnotite Site. These hazardous substances may be exposed or released whenever subsurface soils are exposed or intruded upon by construction activities or utility maintenance or installation. Thus, a rigorous radiological investigation is necessary during any soil intrusion and prior to building any structure for occupancy, as well as proper management and disposal of any radioactively contaminated material, soil and debris. Enforceable institutional controls may also be warranted until the extent of radioactive contamination is identified and the contaminated materials are removed.

b) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;

This factor is demonstrated by IEMA-DNS and IDNS both identifying radioactive contamination at the site in 1979 and 2009, where the 2009 IEMA-DNS survey involved soil sampling. In its August 18, 2009, correspondence, IEMA-DNS reported radium values ranging from 26 to 107 picocuries per gram (pCi/g) and uranium values ranging from 67 to 234 pCi/g.

Also, the AECOM (contractor for the City of Chicago) conducted a subsurface investigation in April/May 2011, where soil analysis results indicated elevated levels of radioactive contamination, including uranium and radium. AECOM reported total uranium concentrations ranging from non-detect (ND) to 158 pCi/g in the first 1 foot of soil, and up to 2,435 pCi/g in first 3 feet of soil. AECOM also reported total radium concentrations ranging from 4.2 pCi/g to 246 pCi/g in the first 1 foot of soil, up to 530 pCi/g in second foot of soil, and up to 1,181 pCi/g in the first five feet of soil.

According to IEMA-DNS, normal background concentrations for uranium and radium in Illinois are approximately 1.0 pCi/g each. U.S. EPA typically uses the soil cleanup criteria of 5 pCi/g (over background) in 40 CFR Part 192 as a remediation goal for CERCLA sites with uranium, thorium and radium contamination. Default residential preliminary remediation goals for uranium for a target cancer risk of 10^{-6} to 10^{-4} range from 0.7 to 70 pCi/g. If proper measures to identify and control radiological contamination are not implemented, radioactively contaminated wastes may be released during construction or utility work.

c) Other situations or factors which may pose threats to public health or welfare or the environment;

The former Michael Reese property may eventually be developed for residential use. In addition, Peoples Gas and other utilities need to repair and maintain their infrastructure in and around the Carnotite Site. The radioactive wastes may be released by these activities and construction and utility workers may be exposed to the radioactive contaminants. Furthermore, there have not been any radiological investigations of the medical center to the north of the Carnotite Site, or the neighboring high-rise residential area to the south of the Site. The radium contamination on the Carnotite Site, if not remediated, may result in elevated radon levels in residential or commercial buildings built on the Site. Radon gas can accumulate in residential and commercial buildings and cause irreparable harm if radon-resistant techniques are not considered and applied during building construction.

d) The availability of other appropriate federal or state response mechanisms to respond to the release;

As described in Section II and the Administrative Record, to date U.S. EPA has taken the lead in similar radiological contamination situations in Chicago and at other sites in Illinois and across the country. Furthermore, uranium and radium are very similar to thorium in terms of radiation risk, with long half-lives of 4.4 billion and 1,620 years, respectively.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, the nature of the contaminants including radioactive material's ability to cause external exposure, inhalation, ingestion, and direct contact hazards, as described in Sections II and III above, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions:

1. Proposed Action Description:

The City, with oversight by U.S. EPA and in consultation with IEMA, should characterize the extent of contamination associated with Carnotite at the property and in offsite vicinity areas, implement an institutional control to prevent intrusive work or exposure to surface and subsurface soils that have not been screened for radiological contamination, and identify and remove the radioactive contamination at the Carnotite Site from the public domain prior to construction work, utility work, landscaping, grading or any other intrusive activities.

2. Contribution to Remedial Performance:

The proposed action will not impede future responses based upon available information.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

All applicable or relevant and appropriate requirements (ARARs) will be complied with to the extent practicable. The primary federal Applicable or Relevant and Appropriate Regulation for the cleanup of inactive uranium processing sites is Title 40, Part 192 of the Code of Federal Regulations, "Health and Environmental Protection

Standards for Uranium and Thorium Mill Tailings." Ancillary ARARs include Occupational Safety and Health Administration's (OSHA) Title 29, Part 1910.1096, of the Code of Federal Regulations, "Ionizing Radiation," Nuclear Regulatory Commission's (NRC) Title 10, Part 20, of the Code of Federal Regulations, "Standards for Protection Against Radiation," and the Department of Transportation's Title 49 standards for shipping hazardous materials. Relevant U.S. EPA guidance includes OSWER Directive No. 9200.4-25, issued February 12, 1998, regarding the "Use of Soil Cleanup Criteria in 40 CFR Part 192, as Remediation Goals for CERCLA Site."

Many of the regulations carried out by the NRC have been delegated to the Illinois Emergency Management Agency, Division of Nuclear Safety. The State has previously identified the regulations at 32 Ill. Administrative Code 332, Licensing Requirements for Source Material Milling Facilities which contain the licensing requirements for source material milling facilities in Illinois as relevant and appropriate to the cleanup of thorium in Streeterville. The cleanup standard for soils and sediment at the Site derived from the foregoing federal and state regulations should be 5 pCi/g plus background for radium-226/288 based on U.S. EPA regulations at 40 CFR §192.22. Additional cleanup standards may need to be developed for other contaminants of concern at the site.

U.S. EPA will also implement the principle of ALARA (As Low As Reasonably Achievable), which refers to the cleanup of all materials above the cleanup standard. ALARA is described in DOE and NRC orders and regulations and in U.S. EPA regulations at 40 CFR §192.22. U.S. EPA made the decision to achieve ALARA in an attempt to maximize protection of human health.

4. Project Schedule:

Not applicable

B. Estimated Costs:

Not available, since this is an Enforcement Action Memorandum.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants at the facility which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

VI. CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed or non-action may result in increased likelihood of external exposure, inhalation, ingestion or direct contact to human populations accessing and working on the

site. Also, since there is no threshold for radiological risk, additional exposure to radiological materials will increase the cancer risk.

VII. OUTSTANDING POLICY ISSUES

The City of Chicago will be eliminating its Department of Environment as of January 1, 2012. It is unclear how this change will affect U.S. EPA's working relationship with the City on projects because there will not be a net loss on City personnel but staff will be scattered among various departments in the City.

VIII. ENFORCEMENT

For Administrative purposes, information concerning confidential enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Michael Reese Hospital /Carnotite Reduction Site/26th Street and Ellis Avenue OU 01 Chicago, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for this Site (Attachment 2). Conditions at the Site meet the NCP Section 300.415(b)(2) criteria for a removal action and I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

APPROVE: Richard C Karl 12-21-11

Director, Superfund Division Date

DISAPPROVE: _____

Director, Superfund Division Date

Enforcement Confidential Addendum

Attachments

1 Environmental Justice Map

2. Index to the Administrative Record

cc: S. Fielding, U.S. EPA, 5104-A
M. Chezik, U.S. Department of Interior, w/o Enf Addendum
D. Scott, Illinois Environmental Protection Agency, w/o Enf. Addendum
S. Davis, Illinois Department of Natural Resources, w/o Enf. Addendum
B. Everetts, Illinois Environmental Protection Agency, w/o Enf. Addendum
G. McCandless, Illinois Emergency Management Agency, w/o Enf. Addendum
T. Runyon, Illinois Emergency Management Agency, w/o Enf. Addendum
K. Worthington, Chicago Department of Environment, w/o Enf. Addendum
B. Haller, Chicago Department of Planning and Development, w/o Enf. Addendum

BCC PAGE

(REDACTED 1 PAGE)

ENFORCEMENT CONFIDENTIAL

MICHAEL REESE HOSPITAL/CARNOTITE REDUCTION COMPANY
CHICAGO, COOK COUNTY, ILLINOIS

DECEMBER 2011

(REDACTED 3 PAGES)

Region 5 EJAssist
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2D 3D Road Aerial Bird's eye Labels
Identify Map Features
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Drag a Rectangle on the map
Define an area
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RCRA 2020
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Railroad
Pipeline
Region 5 Tribal Bounds
Great Lakes AOC
EJAssist EPA Data
GlobeXplorer Image
TerraServer
National Land Cover 2001

ATTACHMENT 2

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
MICHAEL REESE HOSPITAL/CARNOTITE REDUCTION SITE
CHICAGO, COOK COUNTY, ILLINOIS

ORIGINAL
DECEMBER 14, 2011

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	03/29/79	Neuweg, M., IDPH/Division of Radiological Health	Cho, H., City of Chicago	Letter re: Preliminary Radiation Survey for the Michael Reese Medical Center Site	5
2	12/00/90	ATSDR/ U.S. EPA	U.S. EPA	Toxicological Profile for Radium	145
3	04/19/06	Box, C., Illinois Commerce Commission	Peoples Gas Light and Coke Company	Citation for Alleged Violation of Commission Rules Regarding External Corrosion Control	5
4	04/19/06	Illinois Commerce Commission	File	Docket Sheet for Order Entered Citation re: Peoples Gas Light and Coke Company	3
5	12/20/06	Box, C., Illinois Commerce Commission	Peoples Gas Light and Coke Company	Order re: Citation for Alleged Violation of Commission Rules Regarding External Corrosion Control	9
6	07/0308	CH2M Hill	File	Figure: Facility Layout for the Michael Reese Hospital Site	1
7	06/03/09	Box, C., Illinois Commerce Commission	Peoples Gas Light and Coke Company	Order on Reopening re: Citation for Alleged Violation of Commission Rules Regarding External Corrosion Control	2
8	07/20/09	Beslow, M., U.S. EPA	Distribution List	POLREP #1 for the Michael Reese Mercury Spill	1
9	11/03/09	Stofferahn, J., R3 Environmental Management, Inc.	Beslow, M., U.S. EPA & A. Van Waning, Chicago Department of Environment	Letter re: June 2009 Mercury Release at the Michael Reese Hospital Site	4
10	12/07/09	Maradkel, B., Weston Solutions, Inc.	Beslow, M., U.S. EPA	Letter re: Michael Reese Hospital Mercury Spill w/ Attachments	102

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
11	11/03/10	Van Waning, A., Chicago Department of Environment	Simon, V. & E. Jablonowski, U.S. EPA	E-Mail Transmission re: Request to Review SOW for Gamma Surface Scan at Former Carnotite Facility w/ Attached Gamma and Surface Radiation Surveys File	11
12	11/16/10	Simon, V., U.S. EPA	Van Waning, A., Chicago Department of Environment	Letter re: U.S. EPA Comments on the Draft Scope of Work and Standard Operating Procedures Prepared by AECOM for the Michael Reese Hospital Mercury Site/OU1 Carnotite Reduction Company Site	2
13	04/25/11	Kornder, S., AECOM	Addressees	E-Mail Transmission re Carnotite Subsurface Gamma Screening Update w/ Attached Downhole Survey File and Draft Gamma Results Table w/ Reply History	7
14	05/06/11	Jablonowski, E., U.S. EPA	Laberge, K., Chicago Department of Environment	E-Mail Transmission re: Carnotite Sample Recommendations w/ Attached Downhole and Gamma Surface Samples Files and Downhole and Gamma Subsurface Samples Files w/ Reply History	9
15	06/07/11	U.S. EPA	File	E-Mail Transmission Forwarding Attached Michael Reese Hospital Arsenic, Lead, Barium, Uranium, and Gamma 3D Displays File	20
16	07/21/11	Jablonowski, E., U.S. EPA	Laberge, K., Chicago Department of Environment	E-Mail Transmission re: XRF Data w/ Attached Excel File and Draft Maps of Uranium, Lead, Arsenic and Gamma Results w/ Reply History	6
17	07/21/11	Laberge, K., Chicago Department of Environment	Simon, V. & E. Jablonowski, U.S. EPA	E-Mail Transmission re: Analytical Data for the Former Carnotite Reduction Facility/Michael Reese Hospital w/ Attached Carnotite Reduction Compilation Excel File w/ Reply History	1

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
18	10/05/11	Kornder, S. & J. Petruccione, AECOM	Latoza, J., Public Building Commission of Chicago	Letter re: Subsurface Gamma Screening Results (Interim Final Draft) for the Former Carnotite Reduction Company	290
19	00/00/00	Simon, V. & E. Jablonowski, U.S. EPA	Karl, R., U.S. EPA	Enforcement Action Memorandum: Determination of Threat to Public Health and/or the Environment at the Michael Reese Hospital Mercury Site (OU#1: Carnotite Reduction Facility) **(PENDING)**	