



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST REGIONAL OFFICE

December 9, 2010

BARB  
FYI  
JES

Mr. Richard W. Holsing, President  
North American Fencing Corp.  
PO Box 217  
1005 Pittsburgh Street  
Cheswick, PA 15024

Re: Survey of your property

Dear Mr. Holsing:

On August 18, 2010, representatives from the Department's Radiation Protection bureau visited your facility and conducted a preliminary survey of the property, as your site was tentatively identified as the location where the former Keystone Metals Reduction Company was located.

This former company produced a small quantity of radium in the last century, and from our prior involvement with radium production, it was likely that the property may have become contaminated from this effort.

A copy of a memorandum written by one of the investigators from that August survey is attached. This gives you the details about the walk-over radiation level survey we conducted as well as information about the indoor radon concentrations that were measured when staff placed canisters to assess any radon hazard.

Although our results show there is no health threat to any of your employees, DEP management remains concerned about any possible radiation contamination of your property, and whether such contamination may cause liabilities in the future. You will be contacted separately by staff of our Environmental Cleanup section regarding this.

Thank you again for allowing our preliminary survey of your premises. We appreciate your cooperation. If you have any questions concerning this, please contact me. My e-mail address is: [JYusko@state.pa.us](mailto:JYusko@state.pa.us).

Sincerely,

James G. Yusko, CHP, DABR  
Regional Manager  
Radiation Protection

Enclosure - Scoping Survey memo

cc: D. Eberle G. Jugovic D. Allard

COMMONWEALTH OF PENNSYLVANIA  
Department of Environmental Protection  
Bureau of Radiation Protection  
Tuesday, November 16, 2010

**SUBJECT:** Scoping Survey of Former Keystone Metals Reduction Co.

**To:** David Allard  
Director  
Bureau of Radiation Protection

James Yusko  
Radiation Protection Program Manager  
Southwest Regional Office

**FROM:** Robert Maiers *RM*  
Radiation Protection Program Manager  
Decommissioning and Surveillance Division  
Bureau of Radiation Protection

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Staff from the Bureau of Radiation Protection Decommissioning and Surveillance Division (CO) and the Southwestern Regional Office performed a radiological scoping survey of areas around two Cheswick, PA businesses (Pro-Mechanical and North American Fencing) currently operating on the former Keystone Metals Reduction Co. (KMR) site on August 18, 2010.

During the early 1900's KMR operated a small scale facility producing radium at this location. Records are scarce on the operation, but indicate the standard chemical extraction process on previously 'milled' uranium ore was performed at the site. The initial scoping survey was performed to determine if waste products left at the site may remain in quantities that could impact on the environment and public health and safety.

The radiological scoping survey of the Pro-Mechanical property showed no elevated radiation levels. However, there were two (2) notable areas identified on the North American Fencing property. In one small area, surface soil radiation readings of 35 micro-roentgens per hour (uR/hr) were found. A larger area of surface soil was identified along the foundation of the fabrication shop where readings ranged up to 140 uR/hr (see Attachment 1 for locations). Background radiation levels for this area range from 3-7 uR/hr.

A soil sample was collected from the area where the highest surface radiation measurement reading (140 uR/hr) was taken. Laboratory analysis of this sample showed elevated levels of radium-226 (66.4 pCi/g). This sample exceeds the EPA's criteria for radium-226 in surface soil (5 pCi/g) by over a factor of 10 (see Attachment 2).

The extent of elevated surface readings was not large, at most a few square meters. However, it was noted the radiation levels increased significantly where the soil sample was taken, indicating there may be subsurface contamination that would not be detected when doing walkover surveys.

In addition to the radiological surveys performed, fourteen diffusion barrier charcoal canisters were placed in occupied areas of the two businesses to test for radon-222. The results of the tests ranged from 0.1 to 1.6 pCi/l, well below the E.P.A. suggested level of 4.0 pCi/l (see Attachment 3).

The scoping survey and radon tests performed indicate there is no imminent threat to public health and safety under the current conditions. However further investigation should be performed to insure significant amounts of radium-226 are not present in historical waste (uranium tailings) and buried below the ground surface. It is recommended that further investigation/characterization of the former KMR site be performed under a SWRO DEP HSCA response as soon as weather permits in 2011. Based on discussions with the CO HSCA Program, funding is available for performing this investigation in the near term. Lastly, we also need to formally communicate our findings to the two property owners.

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Cc: Tonda Lewis, BRP  
Bryan Werner, BRP  
Barbara Bookser, SWRO

Attachment 1

Keystone Metals Reduction Company (Cheswick, Allegheny County)



Attachment 2  
 PS 1 of 2

Test Codes/CAS#	Test Description	Analyst	Method	95% LLD	Sample Value	95% CE	Date And Time Analyzed
U238	Uranium 238	TMATUKAITI		684	15900 PCI/KG	480	09/24/2010 09:35 AM
PB214	PB 214	TMATUKAITI		90	35400 PCI/KG	200	09/24/2010 09:35 AM
U235	Uranium 235	TMATUKAITI		309	0 PCI/KG	0	09/24/2010 09:35 AM
PB212	PB 212	TMATUKAITI		52	623 PCI/KG	52	09/24/2010 09:35 AM
RA228	RA 228	TMATUKAITI		49	582 PCI/KG	48	09/24/2010 09:35 AM
RA226	RA 226	TMATUKAITI		448	66400 PCI/KG	542	09/24/2010 09:35 AM

✓RC levels

14pci/g

7pci/g

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 The results of the analyses provided in this laboratory report relate only to the sample(s) identified in the report. Unless otherwise noted, the results presented on this laboratory report meet all the requirements of The NELAP Institute (TNI). Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report. Tests noted with "\*\*\*\*" are not included in our NJ NELAP Annual Certified Parameter List.  
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Taru Upadhyay, Technical Director, Bureau of Laboratories

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