
Formerly Utilized Sites Remedial
Action Program (FUSRAP)

Maywood Chemical Company Superfund Site

ADMINISTRATIVE RECORD

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of Engineers®**



FUSRAP Update

The New Jersey Sites Maywood, New Jersey

December 1993

Gamma/Radon Testing Planned for Maywood Commercial Properties

This winter, DOE will conduct gamma and radon testing at 16 commercial properties in the Maywood area. Characterizations were conducted at these properties during the 1980s, and the new series of tests will help to determine whether radiological conditions have changed since then. Owners of the properties will be contacted during the next month to discuss property access for conducting the tests and to answer any questions they may have.

From the Site Manager

As the holidays approach, we would like to thank the residents of the Maywood area for their cooperation and interest in FUSRAP activities through the year. We look for-



ward to the resolution of the dispute between EPA and DOE, and sharing DOE's proposed plan for cleanup of the Maywood site with the public once the dispute is resolved. As we move forward with site activities, we will continue to stress the importance of public involvement. It is through this spirit of cooperation that the work can be accomplished in a much more efficient and community-sensitive manner. We welcome your thoughts and comments and will continue to enlist your assistance as we proceed with the work.

Once again, thank you for your support.

Susan M. Cange

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In This Issue

From the Site Manager	1
Gamma/Radon Testing Planned for Maywood	1
Information Session News	2
DOE and EPA Disagree Over Soil Cleanup Criteria	2
Facts and Findings	3
Cleanup Technology	3
Invite Us to Speak for You!	4

Information Session News

Maywood Site Environmental Report Discussed

An information session was held at the Maywood DOE Public Information Center on September 28 to discuss the 1992 environmental report for the Maywood Interim Storage



Site. Environmental monitoring results indicate that air, surface water, and groundwater conditions at the site have not changed from recent years. The materials at the site remain stable and do not present any threat to public health under current use of the site. The following chart presents a comparison of 1992 results with DOE and other federal guidelines.

Comparison of 1992 Results to DOE Guidelines Maywood Interim Storage Site

	<u>DOE Guidelines</u>	<u>1992 Results*</u>	
Radon in Air	3.0 pCi/L	<0.4 pCi/L	
Thoron in Air	3.0 pCi/L	1.4 pCi/L	
External Gamma Radiation Dose (above background)	100 mrem/yr	0.6 mrem/yr	
		<u>Groundwater</u>	<u>Surface Water</u>
Thorium-232 in Water	50 pCi/L	1.5pCi/L	0.2 pCi/L
	<u>Federal Guidelines</u>		
Total Uranium in Water	30 pCi/L	3.3 pCi/L	0.4 pCi/L
Radium-226 in Water	20 pCi/L	0.5 pCi/L	0.3 pCi/L
	<u>DOE Guidelines</u>	<u>Sediments</u>	
Thorium-232 in Surface Soils	5 pCi/g	1.0 pCi/g	
Radium-226 in Surface Soil	5 pCi/g	0.5 pCi/g	

* All results are annual averages; individual results are slightly above or below these numbers.

DOE and EPA Disagree Over Soil Cleanup Criteria

Earlier this year, the Environmental Protection Agency (EPA) took issue with the cleanup standards to be used at the FUSRAP site in Maywood, New Jersey. Because the Maywood site has been designated as an EPA Superfund site, the cleanup there must be conducted in accordance with an agreement between DOE and EPA and cannot proceed until the dispute is resolved.

DOE's cleanup standards were adapted from standards developed by EPA and are the same for Maywood as for all FUSRAP sites and many other DOE and EPA sites. The standards specify that the top 6 inches of soil at a remediated site should contain no more than an average of 5 picocuries per gram (pCi/g) of radioactivity and that soil deeper than 6 inches should contain an average of no more than 15 pCi/g. However, EPA maintains that the standard of 5 pCi/g should be used regardless of depth of contamination. DOE believes that its proposed standard is protective using reasonable assumptions for future land use. In addition, DOE believes that the stricter standard would not provide significantly greater health protection and that the time and cost required to meet the stricter standard would have a major impact on cleanup schedules and costs.

DOE and EPA have been unable to reach an agreement on cleanup standards for the site. The next step is for EPA's Regional Administrator to write his decision on the dispute. If DOE does not agree with the decision, it will then have 21 days to elevate the dispute to EPA's Administrator and the Secretary of Energy. Both agencies hope to have this issue resolved before the end of the winter.

Although the dispute is centered on cleanup of the Maywood site, ultimately the cost and schedule for cleanup at all FUSRAP and other DOE and EPA sites can be affected by the final decision.

Facts and Findings

How Much is That?

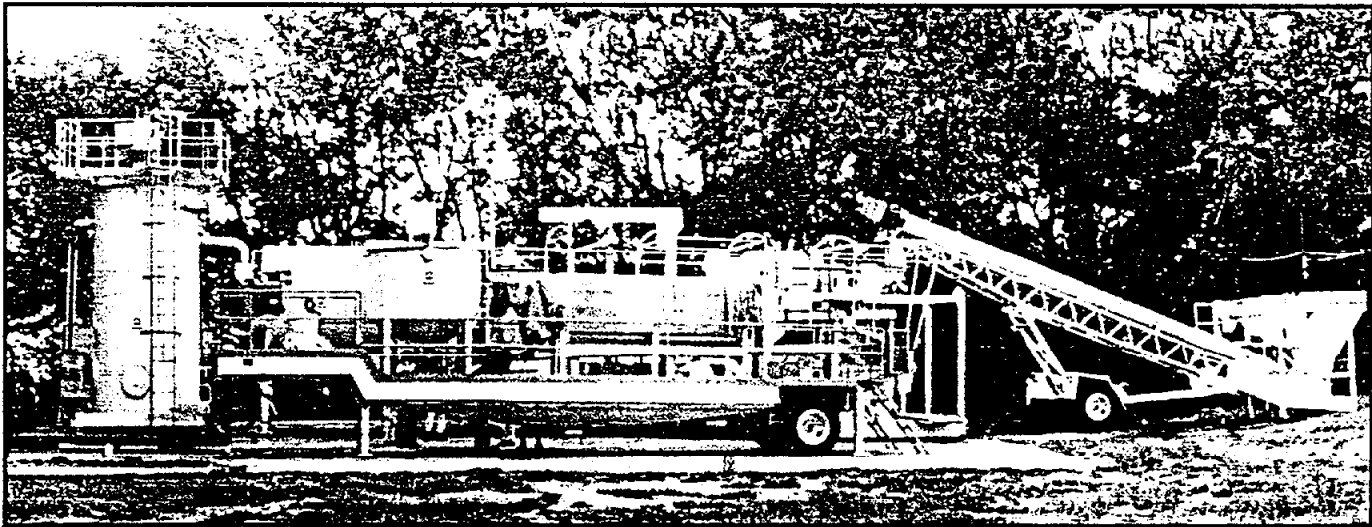
Concentrations of radioactive contaminants are often measured in picocuries per liter (pCi/L) or picocuries per gram (pCi/g). Have you ever wondered how large these amounts are?

How much is a picocurie per gram (pCi/g)? First of all, a curie is the amount of radioactivity in one gram of pure radium. A picocurie is one trillionth of a curie. To put that amount in perspective, consider that if the earth were reduced to one trillionth of its

diameter, the "pico earth" would be smaller than a speck of dust. In fact, it would be one sixth of the thickness of a human hair.

*This discussion is partially adapted from a flyer published by the Dow Chemical Company.

Unit of Radioactivity	Symbol	Examples of Radioactive Materials
1 Curie	Ci	Nuclear medicine generator (such as used for cancer treatment)
1 Millicurie	mCi	Amount used for a brain or liver scan
1 Microcurie	μ Ci	Amount used in thyroid tests
1 Nanocurie	nCi	Consumer products (such as smoke detectors)
1 Picocurie	pCi	Background environmental levels



EPA's VORCE soil washing system

Cleanup Technology

DOE is investigating the use of soil washing, an exciting, innovative technology, for cleaning up contaminated soil at FUSRAP sites. Radioactive contamination adheres to fine particles of silt and clay. Soil washing works by separating these fine materials from coarser components of rocks and sand. This process has the potential to save cleanup dollars by concentrating contaminants into a small portion of the total soil volume for disposal.

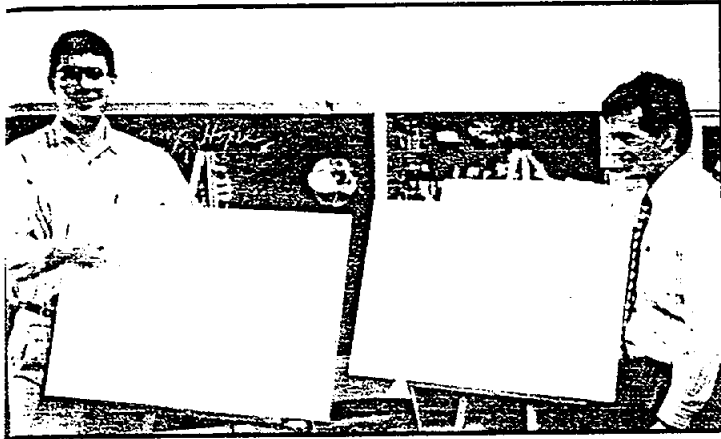
This photo shows a pilot plant originally devel-

oped by EPA to evaluate potential use of this technology at the Montclair Superfund Site. It is called the VORCE soil washing system, which uses a volume reduction/chemical extraction process that has been applied to mining operations for minerals and coal. Although the process was not effective on Montclair soil types, EPA has conducted some preliminary laboratory tests on FUSRAP soils, and the initial results are very promising for reducing large volumes of radioactive soil.

Invite Us to Speak for You!

DOE is pleased to announce the formation of a speaker's bureau as part of its ongoing efforts to share news and information with members of the public. The speaker's bureau includes members of the DOE team responsible for cleanup efforts.

These professionals are now available and eager to speak to your organization or school on topics of interest to you such as radiation in the environment, the Maywood site history, or DOE's plans for cleanup.



To schedule a speaker for your group, please contact Lee Woods, Information Coordinator, at the DOE Public Information Center, (201) 843-7466. We look forward to speaking for you!

For more information, please contact:

U.S. Department of Energy
Public Information Center
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Maywood, NJ 07607
(201) 843-7466

Office hours:

Monday, Wednesday
and Friday
9:00 a.m. to 4:30 p.m.

Or call and leave a message on our toll-free public access line at **1-800-253-9759** and we will promptly return your call.

You may also write to:

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