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Illinois Environmental
Protection Agency

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Pat Quinn, Governor

New Jersey Zinc/Mobil Chemical

New Jersey Zinc/Mobil Chemical Site

Proposed Interim Consent Order

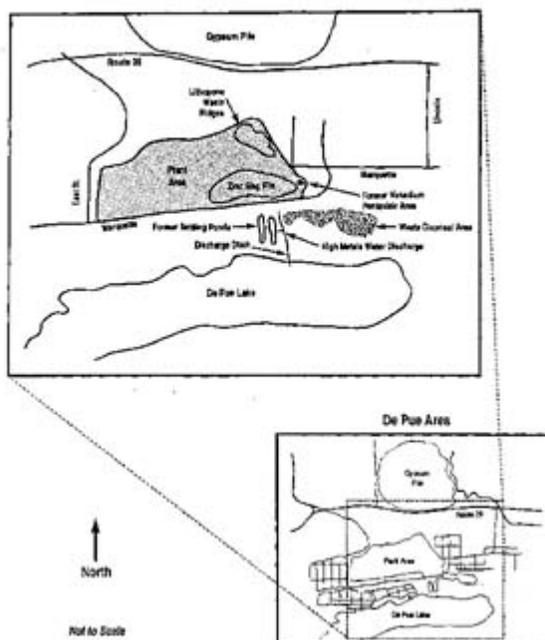
Fact Sheet #3 September 1995

DePue, Illinois

Background

The New Jersey Zinc/Mobil Chemical site is the location of a former primary zinc smelter in DePue, Illinois that began its DePue operations in the early 1900's. See Illinois Environmental Protection Agency (Illinois EPA) "New Jersey Zinc/Mobil Chemical Site Fact Sheet #2, Background" for more detailed background information.

New Jersey Zinc/Mobil Chemical Site De Pue, Illinois



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Why is there concern?

Many of the plant operations took place prior to most environmental regulations so a potential existed for releases to air, water, and land. Preliminary Illinois EPA sampling, conducted in 1992 and 1993, indicated the presence of metals in onsite and offsite soil (including residential yards), surface water, and sediments. These metals include arsenic, barium, cadmium, cobalt, copper, lead, manganese, mercury, silver, sodium, and zinc. These metals

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occur naturally in the environment, but the samples from DePue indicate elevated levels when compared to samples collected from a nearby community.

Do these elevated levels of metals pose a health risk to DePue residents?

Current information indicates that the levels found do not pose an immediate health risk to people exposed for a short period of time. More information needs to be collected before determining if the levels pose an elevated health risk to people who are exposed for many years.

What is the proposed interim consent order?

The proposed interim consent order is an agreement filed for public comment in the circuit court of the 13th Judicial Circuit Bureau County. In this order, three companies have agreed to conduct environmental investigations, studies of possible remedies, and certain actions at the site. The agreed upon work is discussed in more detail on the chart below.

Who are the parties in this proposed interim consent order?

The parties are the Illinois EPA as represented by the Illinois Office of the Attorney General (IOAG) and a group of past and present owners and operators of the site who call themselves the DePue Site Group. Members of the DePue Site Group are Horsehead Industries Inc.; Mobil Oil Corporation, and Viacom International Inc. A history of facility ownership and operations is included in Illinois EPA "New Jersey Zinc/Mobil Chemical Site, Fact Sheet #2, Background".

Why is the proposed consent order called "Interim"?

The proposed consent order is considered interim because it does not include an agreement on a final remedy for the entire site. A final remedy for the entire site will be proposed for public comment after studies of possible remedies are completed. It is anticipated that the agreed upon final remedy will then be incorporated into a second consent order which will be considered the final consent order.

Actions Agreed To In The Proposed Interim Consent Order

Ongoing & Immediate Actions:

Site Security. A chain link fence has been constructed around the former plant site, and all gates are to be guarded or secured by locks.

Dust Suppression. Dust control measures include twice daily inspections with periodic watering if needed.

Gypsum Pile or Stack Closure. Final action on the gypsum pile is being undertaken consistent with Illinois law and regulations. This work will proceed under the interim consent order and is proposed to include grading the pile for drainage and establishing a self-sustaining vegetative cover.

Vanadium Pentoxide Catalyst Disposal Area Closure.

All visible waste material has been removed from this disposal area. The DePue group will submit a report describing past actions and propose future work which will ensure that final action protects human health and the environment.

Air Monitoring. Air monitoring has been conducted to evaluate potential impacts of metals

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in the soil on air quality.

Short Term Actions (Within 18 months)

Water Treatment & Collection. Water containing elevated levels of metals is discharging into DePue Lake via a ditch south of the site and occasionally flowing over the sidewalk along Marquette Street. The sidewalk was recently elevated with underdrains to eliminate ponding of water on the sidewalk. The DePue Site Group will collect and treat this water in an interim water treatment system.

Discharge Ditch Focused Investigation. The DePue Site Group will complete a focused investigation of the discharge ditch according to a work plan to be negotiated with Illinois EPA.

A Study of Possible Remedies for Ditch Sediments. The DePue Site Group will complete a study of remedies for ditch sediments. The preferred remedy, which may include no action, will be submitted to the public for comment before a final decision is made.

Long Term Actions (18 months to several years)

Ditch Remedy. The DePue Site Group will construct the remedy selected for the ditch.

A Comprehensive Investigation of the Entire Site and Surrounding Areas. The DePue Site Group will conduct a study to determine the locations, concentrations, and types of hazardous substances originating from the site and the possible public health and environmental risks associated with these substances.

Possible Focused Investigations. The DePue Site Group may conduct focused investigations of the zinc slag pile and the lithopone ridges to determine any risk these areas may present to human health or the environment.

Study of Remedies for the Entire Site and (if necessary) the Surrounding Areas. The DePue Site Group will complete a study of possible remedies which may be taken to reduce the risks associated with hazardous substances associated with the entire site. This study will be submitted for public comment before a final decision is made.

Possible Focused Study of Remedies. The DePue Site Group may complete focused studies of possible remedies for the zinc slag pile and the lithopone ridges. These possible studies would be submitted to the public for comment before a final decision on remedies is made.

For Additional Information

Repository and future administrative record file location: The project repository, which contains the Phase 1 investigation work plan and other project documents, is located in the Selby Township Library in DePue. The local location for the administrative record file will also be at the Selby Township Library. The administrative record is a file of documents upon which site decisions about remedies will be based.

Contacts: If you have questions about the project you may contact:

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Glossary

Closure. The term "closure" is used to describe final actions taken at waste disposal areas to prevent contaminants from moving into soil, water or air where they may harm human health or the environment. Closure can include a number of actions varying from removing or covering the waste to grading the site and planting vegetation to no action at all.

Gypsum Pile (Stack) or Phospho-Gypsum Pile (Stack). This 150 acre pile north of Route 29 consists of gypsum (calcium sulfate), a major component of wallboard. Gypsum was a by-product of the manufacture of diammonium phosphate fertilizer which occurred at the site from 1967 to 1987. Sulfuric acid (a co-product of zinc smelting) was combined with phosphate rock in an intermediate step of the fertilizer manufacture. The phosphate rock used at the DePue plants came from Florida and contained a low level of naturally occurring radium. The gypsum pile has a very low level of radium. According to the Illinois Department of Nuclear Safety, the levels of radium are below levels of concern.

Lithopone Ridges. These long ridges in the northeast corner of the plant are composed of waste from the production of lithopone. Lithopone, a paint pigment containing zinc and barium, was manufactured at the site from 1923 to 1956. Illinois EPA sample results from the area showed elevated levels of metals including arsenic, barium, cadmium, cobalt, copper, cyanide, lead, mercury, iron, selenium, silver, and zinc which are typical of lithopone residues.

Vanadium Pentoxide Catalyst (V₂O₅) Disposal Area. This was a rather small mound near the southeast corner of the plant which has been removed. Vanadium pentoxide was used at the acid plant to convert sulfur dioxide gas to sulfuric acid, an intermediate step in the production of diammonium phosphate fertilizer.

Zinc Slag Pile. This pile is the large black pile just north of Marquette Street, sometimes referred to as the gob or residue pile or the cinder bank. It contains waste from the zinc smelting process, and according to aerial photographs, began accumulating before 1937. Illinois EPA sample results showed, elevated levels of arsenic, cadmium, cobalt, copper, cyanide, iron, lead manganese selenium, silver, sodium and zinc, which are typical of zinc smelter slag.