

Viewpoints

Volume I, Issue I

1st Quarter, 1999

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Editor's Note: This newsletter is the first in an intermittent series of articles compiled and published by the Community Advisory Panel. It is the express intent of the CAP to provide to the residents of Middleport credible information regarding community issues, plant activities, and environmental concerns such as the contamination and remediation of soils on the Royalton-Hartland school yard using material collected from school officials, the NY State Dept. of Health and other experts.

WHAT IS ARSENIC AND HOW DID IT GET ON THE SCHOOL PROPERTY?

By Bob Wojcik and Robin Ollis (compiled using historical documents)

Arsenic is a gray, metal-like substance that occurs naturally in soil, water, and in the foods we eat. It is present in the environment due to the natural weathering of rock into soil as well as human-related activities such as smelting operations, glass manufacturing, application of agricultural and wood preservation products to control insects, weeds, and other pests that damage crops and goods, and the burning of coal for heat or electrical power. While arsenic in high levels is a poison, the low levels that occur in our diet may actually be important to good health.

The Middleport plant, which FMC acquired in 1946, used arsenic as an ingredient in the manufacture of various insecticides and herbicides from about 1921 to 1974. The plant ceased manufacture of these products in 1974. The equipment used was dismantled and removed from the site, and the building where production occurred was thoroughly cleaned.

No one knows for sure how arsenic came to be on the Roy-Hart property. However, the NY State Department of Environmental Conservation has theorized that some of the means could have been deposits of air-borne dust from the Middleport plant manufacturing processes, and past flooding of some portions of the property by stormwater which ran off Middleport plant property.

Some of the arsenic may be attributed to application of arsenic-based pesticides to areas used as orchards prior to acquisition by the school district. It may also have arrived in agricultural soils brought in to develop the football field. And arsenical herbicides may have been used for weed control there. Of course, some levels could also be due to natural "background".

Regardless of the source of arsenic on the school yard, FMC expects to begin soil removal activity in June 1999.

WHAT IS A SAFE LEVEL OF ARSENIC?

By Dr. Rosalind A. Schoof, Principal, Exponent, Bellevue, WA

For centuries, arsenic has been used as both a medicine and a poison. Several recent articles have highlighted the diverse actions of arsenic. A November 5, 1998, report described

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DEVELOPMENT OF ARSENIC BACKGROUND FOR MIDDLEPORT SOIL

Prepared By
USEPA, NYSDEC & NYSDOH



CAP members John Swick (left) and Greg Bass discuss the challenges ahead.

The above governmental agencies were asked by the FMC-Middleport Community Advisory Panel (CAP) to provide a discussion on the topic of Arsenic Background for Middleport Soil. The purpose of establishing Middleport's soil arsenic background is to help differentiate arsenic that may have originated from FMC's Middleport Plant, from that which is naturally found in soils or which may have come from sources other than the FMC Plant. Since approximately 1985, soil samples have been collected and analyzed for arsenic from locations in Niagara and Orleans Counties. Samples were selected from areas which are characteristically similar to the Middleport community, but which are sufficiently distant, upwind and upstream from the FMC Plant. Using the arsenic data from these soil samples, statistics were employed to calculate a single arsenic concentration to represent arsenic background for Middleport soil. Based on the current set of arsenic data, this representative arsenic background concentration is 30.0 parts per million (ppm). Middleport soil which exceeds this arsenic concentration is considered by the above agencies to be indicative of soil which has probably been impacted by FMC's Middleport Plant. It should be noted, however, that the agencies are continuing to evaluate the arsenic background data set.

For further information you may contact:



Michael Infurna, USEPA (212) 637-4177;

Matt Mortefolio, NYSDEC(518) 457-9253; or

Michael Rivara, NYSDOH(518) 458-6306

"WHAT IS A SAFE LEVEL OF ARSENIC? (continued from page 1)

the dramatic effects of high doses of arsenic in treating an aggressive form of leukemia. A few days later, the *New York Times* graphically described the toxic effects of arsenic in people in Bangladesh and India whose drinking water contains extremely high levels of arsenic from a natural source.

We are all exposed to low doses of arsenic every day, because arsenic is naturally present in drinking water and food. Low levels of arsenic are also present in soil and air. These typical natural exposures are generally assumed to be safe.

In considering what levels of arsenic in soil are safe, it is helpful to compare potential exposures to arsenic in soil with our natural background exposures to arsenic in our water and food. Logic suggests that exposures in the range of our natural background will not be harmful.

Food is the main source of natural exposure to the toxic (inorganic) form of arsenic. Exposures from soil are very low in comparison. The low exposure from soil means that even if soil concentrations of arsenic are ten times natural soil concentrations, the arsenic dose absorbed from soil will still be less than the amount normally absorbed from food.

Arsenic concentrations in most of the Roy-Hart school yard are less than ten times average natural concentrations in soil. Therefore, I do not believe there is any health risk to children playing in the school yard from exposure to arsenic in the soil.

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- Dr. Rosalind A. Schoof

VIEWPOINTS:

"WHAT IS THE CURRENT STATUS OF THE CLEAN-UP?"

FMC Corporation

By Stu Throop
Middleport Plant Manager

FMC Corporation is conducting a privately funded construction project at Roy-Hart Central Schools, as requested by the US Environmental Protection Agency, the New York State Department of Environmental Conservation and New York State Department of Health. The project originated from an EPA-sponsored risk assessment analysis evaluating soil arsenic levels in the school yard.

The project entails excavation and removal of soil from southwest portions of the Roy-Hart Central Schools school yard including the entire football field, running track, spectator seating areas and bus parking lot. The site will then be restored by back filling with imported, "clean" soil, and constructing new sports and parking facilities.

The Agencies' August, 1998 directive to FMC triggered the following actions: FMC agreed to perform the work, formally referred to as an interim corrective measure (ICM). In October we sent the Agencies proposed work plans for the soil removal, disposal and replacement, and for sampling the target soil area in advance to help determine how deeply we will dig. The soil sampling plan was approved, sampling was completed and FMC and the Agencies now have these results.

The Agencies also communicated their comments on the proposed ICM work plan back to FMC, and we are in the process of responding.

Additionally, in response to a request from the Roy-Hart Central Schools Board of Education, FMC agreed to expand the ICM project by extending parts of its northern and eastern perimeter. We also agreed to conduct additional soil analysis at a location in the east-central area of the school yard, with

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Roy-Hart Schools

By Paul J. Bona, Jr.
Superintendent of Schools

On behalf of the Royalton-Hartland Central School District, I would like to apprise our constituency that the decision phase of the upcoming remediation work is progressing. We, the District, have, since the public meetings last fall, participated in several meetings involving the U.S. Environmental Protection Agency, the NY State Department of Environmental Conservation, the Department of Health and FMC. I am very pleased to report that it is clearly evident that the health and safety of our students is the foremost concern of all. Moreover, the cooperative approach that was indicated by the parties has prevailed so far.

Initial construction on the remediation site remains scheduled for July. All the parties remain committed to both thorough removal of the contaminated soil, and rapid restoration and return of our recreational facilities.

These construction activities on our Middleport school yard will necessitate modifications to our athletic programs. Fall 1999 Roy-Hart home football games, and other athletics, will be played at our Gasport Elementary site, where our existing facilities and lighting will be relocated, courtesy of FMC, in the spring. The Middleport site will be unavailable for use due to the summer earth moving process which will take place from graduation until school resumes next September. More information on our sports offerings will be forthcoming.

We are now awaiting FMC's consulting engineers' completion of a graphic rendering of the new Roy-Hart Middleport sports complex. We are anxious to show you, our community, the look and functionality our new home-field will have, when we do receive these drawings.



Robin Ollis, CAP Facilitator, assists with "Viewpoints" layout and design.

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- Paul J. Bona, Jr.

Viewpoints

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Occupant

"WHAT IS THE CURRENT STATUS OF THE CLEAN-UP?" *(continued from page 3)*

FMC Corporation

follow-up soil removal to take place, if necessary.

FMC is securing access agreements and other arrangements needed to begin the soil removal-replacement in late June, 1999, for completion in August while school is recessed. Assuming we receive necessary regulatory Agency approvals as the excavation phase proceeds, construction of the new school year facilities will take place next fall, making them available for spring, 2000 use.

RESOURCES ON THE WORLD WIDE WEB



NYSDOH	www.health.state.ny.us
NYSDEC	www.dec.state.ny.us
USEPA	www.epa.gov
Royalton-Hartland School District	www.royhart.wnyric.org
FMC Corporation	www.fmc.com