CITIZENS' GUIDE
Proposed soil cleanup plans for Lockheed Martin's Middle River Complex

Fall 2013

Lockheed Martin Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

to which Lockheed Martin has responded. Planning is underway for design of the sediments remedy to proceed during 2014.

Assessing Soil Contaminants

What has Lockheed Martin's environmental testing involved?

Investigations have been conducted since 2003 and include review of historical records, discussions with Middle River Complex personnel, geophysical surveys, and soil and groundwater sampling. Over time, more than 1200 soil borings have been taken, providing more than 5100 surface and subsurface samples that were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, and total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO) and -diesel-range organics (DRO). Electromagnetic (EM) and ground-penetrating radar (GPR) were used to identify possible waste disposal areas or buried metallic debris.

Evaluating Possible Cleanup Methods

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Did Lockheed Martin follow a specifc process to evaluate alternatives?

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fuel underground storage tanks; a portion of REC Site 6, the waterfront lot; and REC Site 13, the former boat dock area. The Block F soil remedial action plan addresses primarily a remedy for soil in REC Site 13, the former boat dock area. Soil sampling results and risk assessments indicate that REC Sites 4, 5, and 6 do not require remediation. The seven abandoned-in-place underground storage tanks in REC Site 5 will be removed even though they do not present a recognized human health risk.

What is the nature and extent of soil contamination in Block F?

The source of impacted soil in Block F appears to be fll

Have the underground storage tanks contaminated the soil in Tax Block F?

Some contaminants—total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO) and -diesel-range organics (DRO)—were found near the underground storage tanks, at concentrations deemed acceptable by Maryland Department of the Environment (MDE) standards. Nonetheless, Lockheed Martin has decided to remove the tanks. During the removal process, soil samples will be collected from the walls and floor of the excavation and analyzed. Any soil found exceeding MDE cleanup standards will be removed. After sampling results confirm that remaining soil concentrations are below MDE industrial cleanup standards, the excavated areas will be backfilled with certified clean replacement soil.

Selecting The Best Alternative

What Remedial Action Objectives were selected for Block F?

Two Remedial Action Objectives were selected: first, reduce polycyclic aromatic hydrocarbons (PAHs) to a one in 100,000 increase /q tarTw ‘ 6

leadership, county leaders, and the public at large. The public presentation will occur during a 30-day review and comment period. The final RAP for Block F will be submitted in late fall 2013 and cleanup is expected to begin in late 2015 or early 2016, with completion within one year after starting the cleanup work.

Glossary

Bioremediation

Strategic Evaluation Team — A peer review team established by Lockheed Martin to extensively evaluate the cleanup alternatives and develop a proposed plan for safely and effectively cleaning up contamination.

Surface Water — All water bodies naturally open to the atmosphere (rivers, creeks, storm drains, lakes, reservoirs, ponds, streams, impoundments, seas, estuaries, etc.).

Total Petroleum Hydrocarbons (TPH) — Refers to a measure of concentration or mass of petroleum hydrocarbons present in a given amount of air, soil, or water. Includes gasoline and diesel fuels.

Volatile Organic Compounds (VOCs) — A group of organic chemicals that will vaporize or evaporate into the atmosphere at room temperature. VOCs often have a sharp smell and come from many products, including office equipment, adhesives, carpeting, upholstery, paints, petroleum products, solvents, and cleaning products.

Voluntary Cleanup Program — A Maryland Department of the Environment (MDE) program that provides state oversight for voluntary cleanups of properties contaminated with hazardous substances. The goal of the program is to increase the number of sites cleaned by streamlining the cleanup process while ensuring compliance with existing environmental regulations.

For More Information

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All documents are available at the Essex Library, 410-887-0295, or on Lockheed Martin's Web site at: www.lockheedmartin/middleriver

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