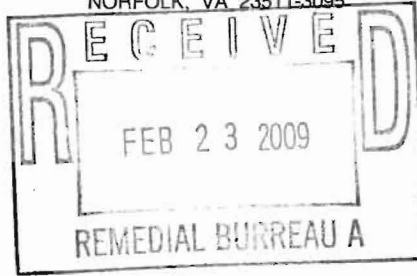




**DEPARTMENT OF THE NAVY**  
NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC  
9742 MARYLAND AVENUE  
NORFOLK, VA 23511-3095



IN REPLY REFER TO :

5090  
OPNEEV/lbf  
19 February 2009

Dear Bethpage Resident:

I am writing this letter to keep you informed regarding our ongoing environmental restoration program at the former Naval Weapons Industrial Reserve Plant (NWIRP), Bethpage, NY. Environmental investigations identified volatile organic compounds (VOCs) in soil at the NWIRP. VOCs are a class of chemicals that can evaporate easily into the atmosphere and include solvents, cleaners, and degreasers. These chemicals were used at the facility by Northrop Grumman from the 1940s to the 1990s. One of the sites with VOCs (the Former Drum Marshalling Area, Site 1) is adjacent to your neighborhood. Under some conditions, VOCs can migrate outward in soil gas (also called soil vapor) and into overlying buildings through a process known as "vapor intrusion" (see the enclosed fact sheet for additional details).

We are working closely with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) to investigate thoroughly the potential for vapor intrusion in your neighborhood. Soil gas testing was conducted inside the NWIRP property boundary in January 2008. In October 2008 and January 2009, additional soil gas testing was conducted along the right-of-ways of 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> Streets. This investigation identified elevated concentrations of VOCs in soil gas between 10<sup>th</sup> and 11<sup>th</sup> Streets and Sycamore and Maple Avenues.

In January 2009, basement indoor air and subslab soil vapor testing was conducted in several homes near the NWIRP property boundary. Some of these homes were found to have VOCs above the NYSDOH guideline for indoor air; however, the NYSDOH guideline was set many times lower than the levels that have caused health effects. The Navy is working with NYSDEC and NYSDOH to implement measures that will quickly reduce VOC levels in the homes. These measures include installing portable air filtration units, sealing sewer cleanouts in the basement (a point where vapors are believed to be entering residences), and installing sub-slab depressurization systems (similar to those proven to effectively remove radon from homes). In addition, with NYSDEC and NYSDOH concurrence, the Navy will install a soil vapor extraction (SVE) system on NWIRP property to contain the source of vapors and prevent vapor migration to nearby homes. The Navy will also be seeking permission from home owners surrounding previously sampled residences to conduct indoor air and sub-slab soil vapor sampling.

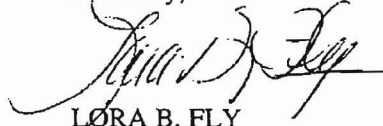
To answer any questions, the Navy will be sponsoring an informational meeting about the soil vapor investigation at the Bethpage Community Center, 103 Grumman Road West, Bethpage, New York on Tuesday, March 3, 2009, from 6:00 – 9:00 P.M. The meeting will be informal and

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consist of a series of poster stations to explain the history of Site 1 environmental activities and ongoing and future actions for this site. Representatives from the U.S. Navy, NYSDEC, and NYSDOH will be on hand to answer questions. Community members are encouraged to attend to learn more about the ongoing project. We look forward to seeing you there.

Should you have any questions, please contact me at (757) 444-0781.

Sincerely,



LORA B. FLY  
Remedial Project Manager  
By Direction of the  
Commanding Officer

Enclosure: (1)

Distribution:

NAVAIR, Richard Smith  
NYSDEC (Albany), Steve Scharf  
NYSDEC (Albany), Henry Wilkie  
NYSDEC (Stony Brook), Walter Parrish  
USEPA Region II, Carol Stein  
Nassau County, Tom Maher  
Nassau County DOH, John Lovejoy  
Nassau County DPW, Tim Kelly  
Town of Oyster Bay, Hon. John Venditto  
Town of Oyster Bay, Richard Pfaender  
Town of Oyster Bay DPW, Tom Clark  
Town of Oyster Bay DPW, Matt Russo  
ECOR Solutions, Al Taormina  
Community Co-Chair, Jim McBride  
Community RAB Member, Mike Grello  
Community RAB Member, Hon. Ed Mangano  
Community RAB Member, Linda Mangano  
Community RAB Member, Ed Resch  
Community RAB Member, Charles Bevilacqua  
Community RAB Member, Roy Tringali  
Community RAB Member, Rosemary Styne

FILE ON EDOC'S	_____	YES	_____	NO
SITE NAME	_____			
SITE #	_____			
COUNTY	_____	TOWN	_____	
AVAILABLE	_____	YES	_____	NO
SC/PSA	_____	RI/FS	_____	
RD	_____	RA	_____	
M	_____	OTHER	_____	
NAME DESCRIPTION:				

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Non Community RAB Member  
Warren Simon  
Anthony Sabino

Public Repository  
Numbered Street Neighborhood – regular mail

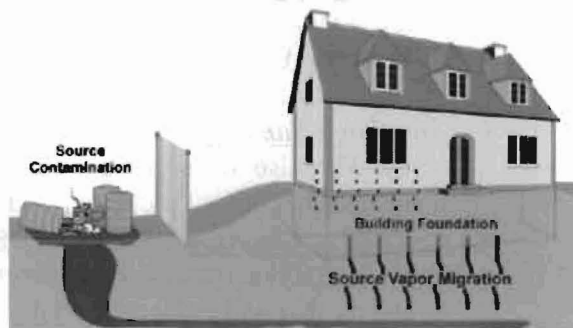


Naval Facilities Engineering Command  
Remedial Project Manager  
Point of Contact: Ms. Lora Fly  
Phone: (757) 444-0781



### What is "vapor intrusion"?

Vapor intrusion is the process by which volatile chemicals move from an underground source into the indoor air of buildings or other enclosed structures. Soil vapor, or soil gas, is the air found in the spaces between soil particles. Over time, volatile chemicals present in the subsurface soils or groundwater can move into and contaminate the soil vapor. Normal heating, air-conditioning and ventilation systems can create a negative pressure inside buildings that draws these soil vapors from the ground into overlying buildings. Under certain conditions, soil vapors can enter buildings through cracks in slab floors, basement floors, sump pumps or wherever electrical wires or pipes penetrate the foundation.



Chemicals that evaporate easily are called "volatile" chemicals. Under certain conditions, volatile chemicals can move from underground into the indoor air of overlying buildings through a process known as "vapor intrusion".

### What is Site 1 and why is it being investigated for potential vapor intrusion?

The Naval Facilities Engineering Command (NAVFAC) has been working with the New York State Department of Environmental Conservation (NYSDEC) to identify and cleanup historical Northrop Grumman waste storage and disposal sites at the former Naval Weapons Industrial Reserve Plant (NWIRP) in Bethpage, NY. Part of this process required groundwater and soils under the Former Drum Marshalling Area (Site 1) to be sampled and analyzed to determine potential impacts from past industrial operations. During the course of this study, volatile chemicals were found in the groundwater and soils at Site 1. One of these compounds, trichloroethylene (TCE), is a volatile solvent known to be associated with vapor intrusion issues at other areas across the United States.

It is thought that these compounds were used as industrial cleaners and found their way into the soil and groundwater due to past disposal practices. Based on the type of chemical, the depth to groundwater and the proximity to occupied buildings, the Navy and NYSDEC concluded that the potential for vapor intrusion into homes near the NWIRP property boundary in the Bethpage neighborhood needed to be thoroughly investigated.

### What are the results of environmental sampling conducted at homes along 11<sup>th</sup> Street?

In January 2009, samples were taken of the basement indoor air and sub-slab soil vapor (underneath the floor in the basement) at several homes along 11<sup>th</sup> Street. Results indicate that TCE levels in the basement indoor air of three homes are above the recommended guidelines published by the New York State Department of Health (NYSDOH). When NYSDOH guidelines are exceeded, measures are taken to reduce or eliminate exposures to volatile chemicals like TCE to help avoid potential health impacts. The Navy, in coordination with NYSDEC, NYSDOH and the Nassau County Department of Health (the Agencies), is working to reduce TCE levels in the indoor air of the impacted residences.

## What are the proposed next steps?

With home owner's permission and Agencies concurrence, the Navy proposes to implement the following measures:

- **Immediate Action:** Installation of a portable residential carbon air filtration unit designed to remove chemical vapors from indoor air, and installation of a prefabricated cover over utility access/sewer cleanouts in the basement (a point where vapors are believed to be entering residences);
- **Interim Action:** In homes with sub-slab soil vapor concentrations above NYSDOH guidelines, install a sub-slab depressurization system (similar to those proven to effectively remove radon from homes) and continued maintenance and monitoring of the system to ensure long-term effectiveness;
- **Additional Sampling:** Due to the TCE soil vapor concentrations above NYSDOH guidelines, the Navy will also be seeking permission from home owners surrounding previously sampled residences to conduct indoor air and sub-slab soil vapor sampling.
- **Long-term Cleanup:** With NYSDEC and NYSDOH concurrence, the Navy will install a soil vapor extraction (SVE) system on NWIRP Bethpage property at the 11th Street property boundary that will reduce the source of vapors impacting nearby homes.

## Can vapor intrusion from Site 1 affect my health?

Exposure to a volatile chemical does not necessarily mean that adverse health effects will occur. Whether or not adverse health effects occur can depend on a variety of factors:

- Toxicity of the chemical;
- Concentration of the chemical;
- Duration and frequency of exposure; and
- The individual's sensitivity to the specific chemical.

Although measurements in some homes along 11th Street were higher than the NYSDOH guideline for TCE, the guideline was set many times lower than the levels that have caused health effects. The Navy is working with the Agencies to quickly reduce the vapor levels in the homes as well as permanently reduce the source of the vapors.

## Where can I go for more information?

For specific information regarding the ongoing cleanup program at NWIRP Bethpage or the ongoing sampling and monitoring program, please contact the remedial project manager, Ms. Lora Fly of NAVFAC at (757) 444-0781 or Mr. Steven Scharf of NYSDEC at (518) 402-9620. Site related health questions may be directed to Mr. Joseph DeFranco at the Nassau County Department of Health at (516) 227-9429 or Mrs. Jacquelyn Nealon of NYSDOH at (800) 458-1158, ext. 2-7880. For media inquiries, contact Mr. James Brantley, NAVFAC Public Affairs Officer at (757) 322-8005 or (757) 831-3907.

The NYSDOH has additional information on vapor intrusion, TCE and other related information located at:

[http://www.health.state.ny.us/environmental/investigations/soil\\_gas/svi\\_guidance/docs/svi\\_appendh.pdf](http://www.health.state.ny.us/environmental/investigations/soil_gas/svi_guidance/docs/svi_appendh.pdf)