STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

555 Cordova Street
Anchorage, AK 99501
PHONE: (907) 269-7545
FAX: (907) 269-7649
www.dec.state.ak.us

File: 2404.38.007

July 7, 2009

Environmental News Update
To the People of Aniak,

We at the Alaska Department of Environmental Conservation (DEC) would like to keep you informed about the work in Aniak over this past year to clean up contamination around the former White Alice Communications building, now the Joe Parent/Votech building. Last summer we had contractors from the consulting firm of Shannon & Wilson working to remove PCB-contaminated soil and continue investigation of the underground contamination around the building's old septic system.

As we mentioned in two letters to the community last summer, our goal had been to finish the cleanup in 2008. However, soil contaminated with polychlorinated biphenyls (PCBs) was more widespread than previous data led us to expect. We removed about 2,300 cubic yards of contaminated soil and materials, including an old septic system that contained trichloroethylene (TCE) and PCB contaminated wastes. TCE is mainly used as a solvent to remove grease from metal. Hazardous materials generated during the cleanup, including most of the contaminated soil that was excavated, were shipped out of state for disposal. Approximately 100 cubic yards of soil with low-level PCBs are staged on-site in a lined containment cell; we plan to dispose of that soil this summer.

Even with a $4 million cleanup contract last year, we were not able to finish the soil removal due to freeze-up, barge schedules, and funding limitations. Additional PCB and TCE contamination at the site still needs to be addressed.

DEC plans to conduct more site characterization this year to define the full extent and sources of both the TCE and PCBs and then develop a final cleanup plan to address the entire site. Contractors on-site earlier this spring conducted a vapor intrusion assessment to determine whether vapors from TCE in the soil/groundwater may be moving into the Middle School building. (See "TCE Contamination" below.)

Our overall project goals include ensuring people are not exposed to contaminants that could pose health risks and cleaning up contaminants that are in the soil and groundwater. For PCBs in soil, the approach has been excavation and off-site disposal to meet the 1 part per million cleanup goal for unrestricted land use. We are continuing to evaluate cleanup alternatives for TCE along with monitoring and other measures to protect people from exposure.

Here is a summary of the work so far and what comes next:

TCE Contamination

- We found TCE (trichloroethylene), a "volatile organic compound," or VOC, in an old septic system and soil and groundwater between the maintenance shop and the Joe Parent/Votech building. Fortunately, ongoing testing of water from the school wells has not found TCE or other VOCs. However, sampling early this spring did find low levels of TCE vapor in indoor air at the Votech building and higher levels in soil gas beneath the building. Elevated levels of tetrachloroethene (PCE) and TCE were also found in higher concentrations in the soil gas underneath the maintenance shop. These findings suggest that vapor intrusion may be happening in both buildings. Contaminants have not been found near the newer high school building.

- Vapor intrusion occurs when contaminants in soil or groundwater volatilize and vapors move through the soil into overlying buildings. When volatile chemicals, including TCE and PCE, are spilled, they adhere to solids (like soil), they dissolve into water, and they give off fumes or vapors that enter the air, even the small air spaces between soil particles. Vapors that move through the soil can also go through cracks in building foundations and floors and into indoor air where people inside the buildings may breathe them.

- Breathing TCE and other VOCs at high enough levels can cause health problems, especially if it occurs over a long time. Breathing in moderate levels of TCE may cause headaches, dizziness, and lung irritation. Long-term exposure to moderate TCE levels may cause nerve, kidney, or liver damage, and possibly increase the risk of getting cancer. The effects of breathing TCE at lower levels are not clear, but DEC's target level for indoor air is very low to be protective of human health.

- The indoor air concentrations (levels) of TCE found in the Votech building were low, between 0.75 and 4.7 $\mu g/m^3$ (micrograms per cubic meter of air). <u>These levels are not high enough to pose an immediate health concern to people who live or work in the building.</u> Small amounts of TCE and/or PCE are often found in indoor air due to solvents or chemicals stored in buildings and due to off-gassing from building materials and even dry-cleaned clothing; these are referred to as "background levels". The TCE levels detected in the Votech building were above DEC's and the U.S. EPA's target indoor air concentration of 0.22 $\mu g/m^3$, which was developed to protect people from risks due to exposure to very low levels of contaminants over many years. DEC has asked the Environmental Public Health Program (EPHP) at the Alaska Department of Health and Social Services to evaluate the indoor air levels of TCE found in the Joe Parent Votech building to determine whether or not they are a health concern. EPHP will conduct a "health consultation" and recommend actions needed to protect public health.

- Concurrently, DEC is evaluating options for response and preventing TCE vapors from moving into the buildings, and we will keep the community updated.

PCB Contamination

- **Last summer we found a significantly larger volume of PCB contaminated soil than expected** behind the Votech building. Instead of being able to remove all contaminated soil, work focused on removing PCB contaminated soil from the west side of the building, near the old septic system and the new fuel system, and in front of the overhead door into the wood shop, where the highest levels of PCBs were found. Portions of the site were cleaned up to the target cleanup levels, but much of the area needs additional work.

- **PBC contaminated soil remains underneath a fabric liner and clean gravel cover on the east side of the building and beneath clean gravel placed over excavations on the west side of the building last year.** These areas will need to be cleaned up under a future contract. A fence was placed on the west side of the Votech building, between the above ground fuel lines and the building, to protect the fuel lines and to help keep people out of the area. Based on work done to date, we now estimate another 3,000 cubic yards of PCB contaminated soil exceeds the target cleanup level.

- **The school has been cleaned of PCBs.** Contractors re-sampled floors inside the Joe Parent/Votech building. No PCBs were found on the floor, except in the wood shop where the sealant/paint had been damaged. The school district repainted and sealed the floor prior to holding woodshop classes in 2008.

We appreciate your patience through this process. Finding and cleaning up underground contamination often requires multiple rounds of testing and removal. Each round of fieldwork requires money, which must be approved annually. Since 1998, DEC's Contaminated Sites Program spent approximately $5 million on characterization and cleanup work at the site. DEC remains committed to seeing this project through.

Between 2004 and now, DEC, the Dept. of Law, and the potentially responsible parties have been negotiating through an alternative dispute resolution process in an effort to reach a settlement agreement on past and future cleanup costs and work with the various other entities which have some legal responsibility for investigation and cleanup.

If you have questions or concerns about the work, please call me at 907-269-7545, or email me at john.halverson@alaska.gov.

Sincerely,

John Halverson
Project Manager