



Housing Environmental Issues

Lead



- ⇒ Lead is a heavy, bluish-gray metal that has a low melting point
- ⇒ Widely used in car batteries, gasoline to increase octane rating, lead-based paints, lead-based solder in food cans and water pipes, fishing equipment, and ammunition
- ⇒ With the advance of science and medical knowledge, lead is now known to be a health hazard. Humans can be exposed to lead through deteriorating paint, household dust, bare soil, air, drinking water, food, ceramics, home remedies, hair dyes and other cosmetics.



Housing Environmental Issues

Lead



OEBGD (CHAPTER 17, CRITERIA C17.3.1 TO .7)

- Develop and implement a multi-disciplinary lead-based paint hazard management program to identify, evaluate, and reduce lead-based paint hazards in child-occupied facilities and military family housing through risk assessment screening, routine inspection, reports, blood lead screening, review of construction history, reevaluations, protection measures, disclosure, training and proper disposal



Housing Environmental Issues

Lead



HOUSING AREA

- Continual sampling of lead at irregular intervals has been conducted in the housing and Navy Sembawang area since 2003. No lead was found in the drinking water or drinking fountains. Some lead based paint has been found on metal railings, clothing line support poles and some paint waste.



Housing Environmental Issues

Asbestos



- ⇒ Asbestos was referred to by the Greeks as the “miracle mineral” due to its softness and pliant properties as well as its ability to withstand heat, possesses high tensile strength, and moderate to good chemical resistance
- ⇒ Widely used in insulations, acoustic plaster, grout, brakes, gaskets, adhesives, etc.
- ⇒ With the advance of science and medical knowledge, asbestos is now known to be a health hazard. Inhalation of asbestos fibers over time may cause asbestosis, thickening of the lung linings, mesothelioma and cancer



Housing Environmental Issues

Asbestos



- Asbestos containing material (ACM) is generally classified as friable or nonfriable.
- Friable ACM contains more than 1% asbestos and can be “crumbled, pulverized, or reduced to powder by hand pressure when dry” and is thought to release fibers into the air more readily.



Housing Environmental Issues

Asbestos



OEBGD (CHAPTER 15)

- Installations will prepare and implement an asbestos management plan including an inventory, notification and education program, system to control activities, O&M, record keeping, training, assessment prior to removing ACM, and DoD school requirements.

OPNAVINST 5100.23G (ASBESTOS CONTROL)

- DoD policy is not to remove installed asbestos containing materials, which are in good condition, for the sole purpose of eliminating asbestos.



Housing Environmental Issues

Asbestos



HOUSING AREA

- Continual sampling and monitoring of asbestos - One sample per each type of house and visual inspection since 2003. No friable asbestos was found. Transite and some asbestos containing material were identified in car park roofing structures, portions of the Medical Aid Station roofing, some inner wall boards, roof top access panels and some floor tiles. Nearly all of the identified structures have been replaced or the locations placed under NRCS reinspection program.



Housing Environmental Issues Lead & Asbestos



- Both issues were identified prior to the transfer from Air Force to Navy in FY06.
- NRCS has prepared an asbestos O&M plan and conducts yearly monitoring of identified asbestos areas. Several removal projects were also completed.
- NRCS continues to monitor and sample suspected lead and asbestos areas.
- NRCS has implemented an awareness and education program for the housing residents.



Housing Environmental Issues Lead & Asbestos



RECOMMENDATIONS

- NRCS will continue to raise the issues to request funding for a comprehensive survey in the housing area.
- All houses will be evaluated on an as-needed basis and prior to major renovation.
- MAS to implement a blood lead screening and risk assessment program for all housing residents.
- MAS, Safety, and PWD/Environmental to continue monitoring, track, and provide counseling services.