

FACT SHEET:

Environmental Investigation Report of April 11, 2016

Office of Military Commissions
Camp Justice, Naval Station Guantanamo Bay, Cuba

Introduction

The Navy Marine Corps Public Health Center is performing a comprehensive and multi-faceted Public Health Review (PHR) to assess potential health risks associated with living and working at Camp Justice. In line with the Navy's commitment to continually share important health information during the PHR process, which is still underway, we encourage you to review this Fact Sheet, which contains a brief summary of key information contained in the associated 1,684 page report. The report and this Fact Sheet are provided as part of the Navy's effort to investigate the potential health risks to personnel serving at Camp Justice on Naval Station Guantanamo Bay, Cuba (NSGB).

Purpose

The purpose of this Environmental Investigation (EI) was to document the environmental samples that were collected from Camp Justice in support of the human health risk assessment that is being developed by the Navy and Marine Corps Public Health Center (NMCPHC) as part of the comprehensive PHR. To characterize potential exposures and potential health risks to residents, workers and visitors, the EI sampled for hundreds of chemicals of concern (COCs) from different media (indoor air, ambient air, drinking water, soil and building materials). Environmental samples were collected between October 10 -14, 2015. All chemical analyses were validated and determined to be of acceptable quality on November 11, 2015.

Findings

The EI included the following tasks:

- Assessment of surface soils for chemicals associated with airfield operations, fuels, electrical transformers, paint, and historical pesticide/herbicide applications (69 samples were taken).
- Assessment of drinking water for microorganisms, disinfection byproducts, lead, and copper (17 samples were taken).
- Assessment of indoor air for asbestos, radon gas, formaldehyde, mercury vapor, fuels, and solvents (222 samples were taken).
- Assessment of paint for polychlorinated biphenyls at Building AV-32 (3 samples were taken).
- Assessment of ionizing radiation at Buildings AV-29, AV-31, AV-32, and AV-34 (12 Thermoluminescent Dosimeters (TLDs) and radiation detection instruments).

Indoor/Ambient Air: Air samples collected within workspaces and ambient air on Camp Justice were analyzed and common chemicals from air fresheners, carpets and cleaning products were detected, with no regulatory exceedances of these chemicals in the air.

Mercury: The levels of airborne mercury detected were well below the American Conference of Governmental Industrial Hygienists, the National Institute for Occupational Safety and Health (NIOSH), and the Occupational Safety and Health Administration (OSHA) regulatory limits.

Formaldehyde: Formaldehyde in indoor air samples, a common volatile chemical compound emitted from furnishings and carpets, was below the OSHA regulatory limits for occupational exposure, but found to exceed recommended exposure limits established by NIOSH in a few samples. These levels, however, were within typical range of formaldehyde concentrations reported by the Centers for Disease Control and Prevention (CDC) for homes in the United States. Corrective action was promptly taken to reduce these airborne concentrations of formaldehyde.

Asbestos: No samples for asbestos exceeded the OSHA regulatory standard.

Radon: Radon was detected at only two locations (basement and bunker) and these levels were below the U.S. EPA-recommended action level.

Paint chips: Polychlorinated biphenyls (PCBs) were commonly used in oil-based paints and/or are found in paint pigments. Detected concentrations are below the regulatory standard under the Toxic Substances Control Act.

Drinking water: Chlorine concentrations were within accepted ranges. Copper and lead concentrations were all below U.S. Safe Drinking Water Act standards. Haloacetic acid (HAA5) and Trihalomethanes were detected in several samples, these chemicals are by-products of drinking-water disinfection. Bottled water is used for drinking water on Camp Justice.

Soil: Metals, some polynuclear aromatic hydrocarbon (PAHs), pesticides, and gasoline range organic/diesel range organic (GRO/DRO) were detected in soil. Metals detections are thought to be consistent with regional geology and naturally occurring elements. PAHs are low level and could be attributed to natural sources, or related to the incomplete combustion of fuels and exhaust products from engines (not indicative of any fuel releases). Pesticides detected are likely attributable to their historical application for pest control. GRO and DRO detections are relatively low and not definitive of possible releases of petroleum hydrocarbons and can be indicative of high organic matter.

Ionizing Radiation: Areas in and around AV-32 were evaluated for ionizing radiation using sensitive radiation detectors and posted dosimetry. Twelve TLDs were also placed to quantitatively measure radiation in AV-32, AV-29, AV-34 and AV-31. The results indicated the presence of naturally occurring radioactive material consistent with what would typically be found in construction/building materials, and soil.

NMCPHC performed a preliminary public health screening risk assessment on these EI results and determined the vast majority of chemical concentrations detected at Camp Justice were less than their respective EPA Screening Levels. Based on their concentrations and/or frequency of detection, mercury and formaldehyde in indoor air, and arsenic and benzo(a)pyrene in soil were further evaluated and risk management actions where necessary have been implemented. You can view this report at the following link:

http://www.cnrc.navy.mil/content/dam/cnrc/cnrse/pdfs/ns_gitmo/NMCPHC%20Preliminary%20Public%20Health%20Screening%20Risk%20Assessment%20Camp%20Justice%2023%20Feb%202016%20For%20Public%20Release.pdf

An Indoor Air Quality Assessment for AV-29, AV-32, AV-34, Cuzcos, Expeditionary Tents, and Expeditionary Legal Complex was performed and you can view this report at the following link:
http://www.cnrc.navy.mil/content/dam/cnrc/cnrse/pdfs/ns_gitmo/49_Page_IAQ_Assessment_Report_1_2_Jan_2016_for_public_release_10_Aug_2016.pdf

An Overseas Baseline Environmental Assessment was conducted to review historical records and determine if there are potential health risks that could be related to past industrial chemicals, usage,

storage, or disposal practices at Camp Justice. You can view this report at the following link:
http://www.cnic.navy.mil/content/dam/cnic/cnrse/pdfs/ns_gitmo/486_OBEA_Report_7_April_2016_full_report_for_public_release_10_Aug_2016_Compressed.pdf

In summary, these results are preliminary – not final. Final conclusions will not be made until all of the data for the PHR have been collected, analyzed and presented in the final PHR Report.

To read the full report associated with this fact sheet, go to:

http://www.cnic.navy.mil/content/dam/cnic/cnrse/pdfs/ns_gitmo/1684_Page_EIR_11_April_2016_for_public_release_10_Aug_2016.pdf