Petitioned Health Consultation

HOLIDAY UTILITIES

TARPON SPRINGS, PINELLAS COUNTY, FLORIDA

NOVEMBER 26, 1999

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members.

This document has previously been released for a 30 day public comment period. Subsequent to the public comment period, ATSDR addressed all public comments and revised or appended the document as appropriate. The health consultation has now been reissued. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

You May Contact ATSDR TOLL FREE at
1-888-42ATSDR
or
Visit our Home Page at: http://atsdr1.atsdr.cdc.gov:8080/

PETITIONED HEALTH CONSULTATION

HOLIDAY UTILITIES

TARPON SPRINGS, PINELLAS COUNTY, FLORIDA

Prepared by:

Petition Response Section
Exposure Investigations and Consultation Branch
Division of Health Assessment and Consultation
Agency for Toxic Substances and Disease Registry

Background and Statement of Issues

On August 11, 1998, a resident of Tarpon Springs, Florida, petitioned the Agency for Toxic Substances and Disease Registry (ATSDR) to perform a health assessment on Holiday Utilities, Tarpon Springs, Florida (1). The utility is a municipal water supply company and is located in Pinellas County, Tarpon Springs, FL. The company has two operation facilities Westwood Subdivision and Anclote Village (2). Both sites are located in neighboring Pasco County. These two facilities serve as well water distribution centers providing water to approximately 630 commercial and residential customers in Tarpon Springs(3). Both distribution sites draw water from the same Floridian aquifer.

Holiday Utilities is not a generator of hazardous wastes. However, according to the petitioner, the Pinellas county property was previously an uncontrolled landfill and sludge and septic tank spread area (1). The petitioner's primary concern involves drainage ponds located about 500 feet from the Holiday Utilities' business office in Pinellas County. The petitioner believes that these ponds are contaminated and may either be used as a source for municipal drinking water or contaminate the Holiday Utilities' water supply. They believe that if contaminated, this water supply may impact the health of the community, most notably the Gulfside Elementary School (4). The purpose of this health consultation is to evaluate whether the Holiday Utilities site represents a potential health hazard to the community.

Discussion

The potential human exposure pathways for contaminants at this site were ingestion and dermal contact. In response to the petition, ATSDR evaluated all available information to determine if residents are potentially exposed to hazardous contaminants. ATSDR personnel visited the site and contacted local, state, federal environmental and health agencies to gather information in regards to the petitioner's concerns. ATSDR found no documentation supporting the petitioner's claim that the Pinellas county site, or any property occupied by Holiday Utilities, was previously an uncontrolled landfill. ATSDR learned that Holiday Utilities does not take surface water from these drainage ponds to supply municipal water to customers. These ponds are located on fenced private property and collect runoff from adjacent properties and streets. All water supplied to customers comes from wells dug within the Floridian aquifer at the two distribution locations (5). Although there are no sampling data available for these drainage ponds, occasional exposure would not likely result in ill health effects.

On March 24, 1999, ATSDR contacted Holiday Utilities to request any environmental sampling data that were available on well water quality conducted by a certified laboratory. In

accordance with the Florida Department of Environmental Protection (FDEP), Drinking Water Section, water monitoring analyses are conducted every three years. ATSDR received 1997 data for both well distribution facilities Westwood Subdivisions and Anclote Village (6,7). The monitoring results for the Anclote distribution site revealed that lead was the only contaminant detected in the wells that exceeded the U.S. Environmental Protection Agency's (EPA) action level of 15 ppb (6). The maximum level found for lead was 25 ppb. However, the average concentration of lead detected was found to be below 15 ppb and would not be of public health concern. Therefore, exposure to lead in the drinking water at that concentration is not likely to cause adverse human health effects. FDEP also requires that bacteriological analysis be conducted for drinking water. Fecal coliforms counts were negative for both Holiday Utility distribution sites.

In 1998, U.S. Environmental Protection Agency (EPA) Region IV reviewed 1989 analytical sampling results obtained for the Holiday Utility's well (Anclote Village) serving the Gulfside Elementary School. The 1989 investigation report indicated that radon concentrations were almost 5,000 picocuries/L. The Florida Department of Human Services does not consider radon concentration less than 30,000 pCi/L in water to be of public health concern and the levels found in Tarpon Springs were not considered uncommon for state wells (8). Thallium was not detected in water samples obtained in December, 1997 from either distribution centers. Holiday Utilities performs all required water monitoring tests under state law (9). The state has indicated that air radon levels inside Gulfside Elementary School have been within acceptable limits (8). Therefore, the Holiday Utilities site represents a no apparent health hazzard based on a review of the available water data and in consideration of health concerns. Since this is a source of municipal water, the FDEP will continue to monitor for contaminants in the future.

Conclusions

1. Following a review of the available data, ATSDR concludes that the Holiday Utilities site represents a no apparent health hazard.

2. No documentation was found that supports a claim that the Pinellas county site, or any property occupied by Holiday Utilities, was previously an uncontrolled landfill.

3. Chronic human exposure and adverse health effects are unlikely since Holiday Utilities does not take water from drainage ponds to supply municipal water to customers.

4. Water supplied to customers comes from the two well distribution sites in Pasco County. Water monitoring results from both well facilities revealed that the maximum concentration of lead was the only contaminant detected that exceeded U.S. EPA's action level. Because the average detected concentration of lead was well below the action level, exposure is not

considered a public health concern.

5. The maximum level of radon detected was well below the state action level for radon in water.

6. Thallium was not detected in water samples obtained in December, 1997 from either distribution centers

Recommendations

1. Further public health activity is not recommended for the Holiday Utility site since contaminants are not present at levels of health concern. If requested, ATSDR will evaluate any additional data and consider appropriate public health activities.

2. Although chronic exposure and adverse health effects are not likely, ATSDR recommends water sampling of the drainage ponds located at the Pinellas county site.

Public Comment

The Agency for Toxic Substances and Disease Registry (ATSDR) released the Holiday Utilities Health Consultation for public review and comment from October 15 through November 14, 1999. No comments or concerns were received and the document has been finalized.

Site Team/Authors

Todd Raziano
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Exposure Investigations and Consultation Branch

Adele M. Childress, PhD, MSPH
Environmental Health Scientist
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Exposure Investigations and Consultation Branch

Frank Schnell, Ph.D., DABT
Toxicologist
Agency for Toxic Substances and Disease Registry

Division of Health Assessment and ConsultationExposure Investigations and Consultation Branch

Carl Blair, Regional Representative
Agency for Toxic Substances and Disease Registry
Office of Regional Operations, Region IV

References

1. Petitioner for Holiday Utilities site. Letter to the Agency For Toxic Substances and Disease Registry. August 11, 1998.

2. Environmental Specialist, Florida Department of Environmental Protection, Drinking Water Section. Letter to the Agency for Toxic Substances and Disease Registry. May 6, 1999.

3. State of Florida, Department of Environmental Protection, Southwest District. Sanitary Survey Report for Anclote Village and Westwood Subdivision. March 16, 1999.

4. Agency for Toxic Substances and Disease Registry, Region IV. Agency for Toxic Substances and Disease Registry Record of Activity. January 13, 1999.

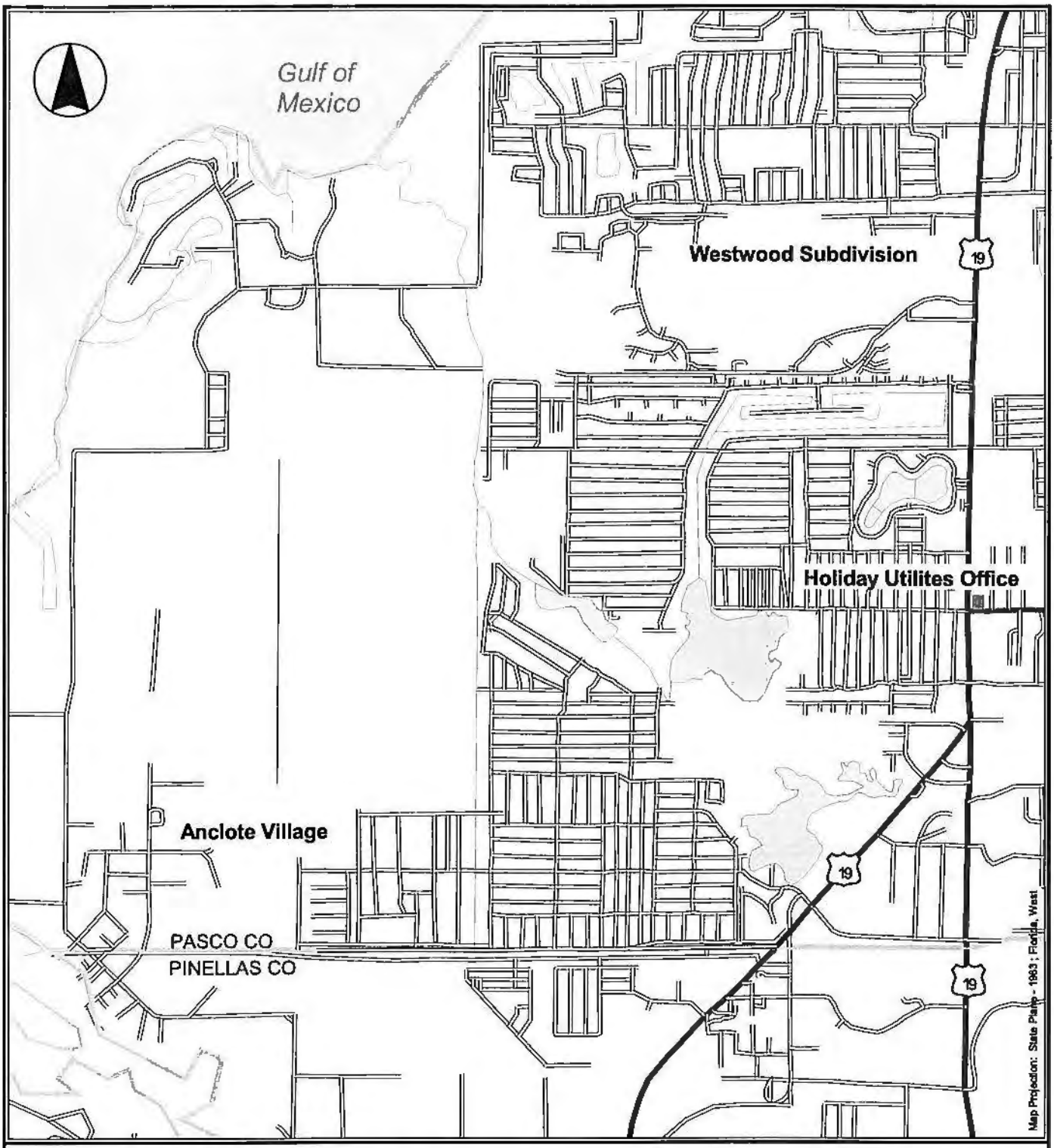
5. Agency for Toxic Substances and Disease Registry. Agency for Toxic Substances and Disease Registry Record of Activity. July 28, 1999.

6. Florida Department of Environmental Protection, Drinking Water Section. Three Year Monitoring Results for Anclote Village. May 6, 1999.

7. Florida Department of Environmental Protection, Drinking Water Section. Three Year Monitoring Results for Westwood Subdivision. May 6, 1999.

8. U.S. Environmental Protection Agency, Region IV. Note to petitioner. August 19, 1998.

9. Ulferts, Alisa. St. Petersburg Times. "EPA Looks at Costs of Radon Risk." February 28, 1999.



Holiday Utilities

Tarpon Springs, Florida

CERCLIS No. FLXCRA547000

VICINITY MAP

PAC091809

APPENDIX A

COMPARISON VALUES

ATSDR's Comparison Values

ATSDR comparison values are media-specific concentrations that are considered to be "safe" under default conditions of exposure. They are used as screening values in the preliminary identification of "contaminants of concern" at a site. A "contaminant of concern" is a site-specific chemical substance that the health professional has selected for further evaluation of potential human health effects.

Generally, a chemical is selected as a contaminant of concern because its maximum concentration in air, water, or soil at the site exceeds one of ATSDR's comparison values. Comparison values are not thresholds of toxicity. It does not necessarily follow that any environmental concentration that exceeds a comparison value would be expected to produce adverse health effects. Whether adverse health outcomes will actually occur as a result of exposure to environmental contaminants depends on site specific conditions and individual lifestyle and genetic factors that affect the route, magnitude, and duration of actual exposure, and not on environmental concentrations alone.

Screening values based on non-cancer effects are obtained by dividing NOAELs or LOAELs determined in animal or (less often) human studies by cumulative safety margins (variously called safety factors, uncertainty factors, and modifying factors) that typically range from 10 to 1,000 or more. By contrast, cancer-based screening values are usually derived by linear extrapolation from animal data obtained at high doses, because human cancer incidence data for very low levels of exposure do not exist. The resulting screening values (i.e., EMEGs or CREGs) can be used to make realistic predictions of health risk associated with low-level exposures in humans.

Listed and described below are the various comparison values that ATSDR uses to select chemicals for further evaluation, along with the abbreviations for the most common units of measure.

CREG	=	Cancer Risk Evaluation Guides
MRL	=	Minimal Risk Level
EMEG	=	Environmental Media Evaluation Guides
RMEG	=	Reference Dose Media Evaluation Guide
ppm	=	parts per million, e.g., mg/L or mg/kg
ppb	=	parts per billion, e.g., μg/L or μg/kg
kg	=	kilogram (1,000 grams)
mg	=	milligram (0.001 grams)
μg	=	microgram (0.000001 grams)
L	=	liter
m^3	=	cubic meter (used in reference to a volume of air equal to 1,000 liters)

Cancer Risk Evaluation Guides (CREGs) are estimated contaminant concentrations in water, soil, or air that would be expected to cause no more than one excess cancer in a million persons exposed over a lifetime. CREGs are calculated from EPA's cancer slope factors.

Minimal Risk Levels (MRL) are estimates of daily human exposure to a chemical (i.e., doses expressed in mg/kg/day) that are unlikely to be associated with any appreciable risk of deleterious noncancer effects over a specified duration of exposure. MRLs are derived for acute ($\leq$ 14 days), intermediate (15-364 days), and chronic ($\geq$ 365 days) exposures, and are published in ATSDR's Toxicological Profiles for specific chemicals.

Environmental Media Evaluation Guides (EMEGs) are concentrations of a contaminant in water, soil, or air that are unlikely to be associated with any appreciable risk of deleterious noncancer effects over a specified duration of exposure. EMEGs are derived from ATSDR minimal risk levels by factoring in default body weights and ingestion rates. Separate EMEGS are computed for acute ($\leq$ 14 days), intermediate (15-364 days), and chronic ($\geq$365 days) exposures.

Environmental Protection Agency (EPA) values are similar to ATSDR's CREGs and EMEGs in that they are risk-based concentrations derived for carcinogens and non-carcinogens from RfDs and Cancer Slope Factors, respectively, assuming default values for body weight, exposure duration and frequency, etc. Unlike ATSDR values, however, they are available for fish, as well as for water, soil, and air.

Reference Dose Media Evaluation Guide (RMEG) is the concentration of a contaminant in air, water, or soil that corresponds to EPA's RfD of RfC for that contaminant when default values for body weight and intake rates are taken into account.

(EPA's) Reference Dose (RfD) is an estimate of the daily exposure to a contaminant unlikely to cause noncarcinogenic adverse health effects over a lifetime of exposure. Like ATSDR's MRL, EPA's RfD is a dose expressed in mg/kg/day.

Reference Dose Concentrations (RfD-C) is a concentration derived from an EPA Reference Dose with assumed body and ingestion rates factored into the calculation.