Consumer Confidence Report

January 1, 2017 - December 31, 2017

Incirlik AB, Turkey

Introduction

The Consumer Confidence Report is an annual report on the quality of drinking water produced and delivered by Incirlik AB. Under the "Consumer Confidence Reporting Rule" of the Safe Drinking Water Act (SDWA), community water systems are required to report this water quality information to the consuming public. This report presents information on the source of the water, its constituents and the health risks associated with any contaminants. It contains technical language required by the U.S. Environmental Protection Agency (EPA), which is designed to further public understanding about public water systems and potential hazards. Because we are in a foreign country, we are also required to abide by the Final Governing Standards of this country. The Final Governing Standards for the Republic of Turkey (FGS-T) has requirements comparable to those of the U.S. EPA and SDWA.

Where does my water come from?

There is one distinct Public Water System at Incirlik AB serving a population of approximately 3,690 people. Incirlik AB's water source is derived from four wells that are located on the base. Before the groundwater is used for human consumption, it is treated and purified at the Water Treatment Plant (WTP) by mechanical filtration, reverse osmosis water purification, with chlorine for disinfection, and hydrofluorocilic acid for dental health. Water is then pumped to several storage tanks that feed and maintain pressure in the water distribution system. In order to ensure that Incirlik AB's water is safe to drink, the FGS-T requires monitoring of the water system and places limits on the concentration of contaminants in the water.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least trace amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and their potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at 001-800-426-4791 or Bioenvironmental Engineering at DSN 676-6305 or commercial 0322-316-6305.

Contaminants that may be present in source water include:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity, including:

(A) Microbial contaminants, such as viruses and bacteria, which can be naturally occurring or come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Who needs to take special precautions?

Some people may be more vulnerable to adverse health effects from contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly,

and infants may have a higher risk from infections or other adverse health effects from contaminants. These people should seek advice about drinking water from their health care providers. U.S. EPA and the Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection or other adverse health effects due to microbial or other contaminants are available from the Safe Water Drinking Hotline mentioned above.

Information on Nitrates

Incirlik AB is surrounded in large part by agricultural land. As a result, the nitrate levels in the drinking water are closely monitored. Levels may be affected by rainfall or agricultural activity. Nitrate concentrations in drinking water above 10 mg/L is a health risk for infants and small children. The nitrate concentrations during the calendar year (CY) 2017 were below 10 mg/L.

Information on Fluoride

Fluoride at low concentrations in drinking water is beneficial to proper development of teeth and the prevention of cavities, but in elevated levels, can cause dental problems in children. Levels above 2 mg/L can cause dental fluorosis (mottling), which may include brown staining and pitting of the permanent teeth. This problem only occurs in developing teeth, before they erupt from the gums. The fluoride concentrations during the CY 2017 were below 2 mg/L.

Monitoring of Your Drinking Water

At Incirlik AB, Bioenvironmental Engineering personnel monitor the contaminant groups in the following table using certified laboratories and approved methods for the purpose of ensuring the water is safe to drink and to maintain compliance with the FGS-T. The second column of the table specifies the monitoring frequency for the contaminant groups monitored at Incirlik AB and required by the FGS-T. The Turkey-Spain Base Maintenance Contract, currently executed by Vectrus, operate the WTP. They monitor numerous water quality parameters on a more frequent basis. The parameters include but are not limited to pH, chlorine and nitrates.

Analyte/Contaminant Group	Monitoring Frequency[1]
Microbiological contaminants	Monthly
Chlorine	Monthly
Fluoride	Monthly and every 3 years at source
Nitrate & Nitrite	Quarterly
Total Nitrate & Nitrite	Quarterly
Lead and Copper	Sample every 3 years
Total Trihalomethanes (TTHM)	Quarterly
Haloacetic Acids (HAA5)	Quarterly
Inorganic Compounds (IOCs)	1 Sample every 3 years
Metals[2]	1 Sample every 3 years
Synthetic Organic Compounds (SOCs)	Annually
Volatile Organic Contaminants (VOCs)	Annually
Pesticides/Polychlorinated Bisphenols (PCBs)	2 Quarterly samples every 3 years
Gross Alpha Particle Radioactivity	4 Quarterly samples every 4 years
Combined Radium-226 and -228	4 Quarterly samples every 4 years
Beta Particle and Photon Radioactivity	4 Quarterly samples every 4 years
Asbestos	Once every 9 years

[1] - Note: The FGS-T requires monitoring less than once per year for some contaminants because the concentrations of these contaminants does not change rapidly and previous monitoring has shown the contaminants to be below levels of concern.

[2] - Note: Metals include antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, nickel, selenium, sodium, and thallium.

Definitions of Key Terms

To gain a better understanding of the report content, we have provided definitions of several key terms:

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed by the FGS-T in drinking water.

mg/L - milligrams per liter; a unit of measure equal to part per million (ppm) in water.

Picocurie per liter (pCi/L) - Measure of radioactivity in water.

mrem/yr - Millirem/year is the measure of radiation absorbed by the body and the relative biological effectiveness of the radiation per year.

Range - The range of the lowest and highest analytical values of a reported contaminant.

Water Quality Data Table

The water quality table below lists select drinking water sampling results after treatment during the CY 2017. For additional results please call or email Bioenvironmental Engineering at the contact information listed below.

Contaminants[1]	MCL	Average	Violation	Typical Source
Chlorine	4 mg/L	0.77 mg/L	No	Disinfectant to control microbiological contaminants
Fluoride	1.5 mg/L (Secondary MCL of 4 mg/L)	0.8 mg/L	No	Erosion of natural deposits; Water additive that promotes strong teeth
Total Coliform Bacteria	0	0	No	Naturally present in the environment
Nitrate	10 mg/L	7.1 mg/L	No	Fertilizer use; Leaching from septic tanks and sewage; and Erosion
Nitrite	0.05 mg/L	<0.03	No	Fertilizer use; Leaching from septic tanks and sewage; and Erosion
Total Nitrate/Nitrite	10 mg/L	6.93 mg/L	No	Fertilizer use; Leaching from septic tanks and sewage; and Erosion
Haloacetic Acids (HAA5)	0.060 mg/L	0.006 mg/L	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	0.080 mg/L	0.008 mg/L	No	Byproduct of drinking water disinfection
Perfluorooctane Sulfonate (PFOS)/Perfluorooctanoic Acid (PFOA)	70 ppt[2]	24.02 ppt	No	Consumer products such as carpets, clothing, was also previously used for firefighting before it was phased out for less hazardous material.

[1] - Note: Several samples did not meet hold time requirements due to travel restrictions delaying their arrival at the certified laboratory.

[2] - Note: EPA has released a health advisory for PFOS/PFOA of 70 ppt, however, it should be noted that advisories are non-enforceable and non-regulatory.

Please contact Bioenvironmental Engineering at DSN 676-6305 or commercial 0322-316-6305 with any questions concerning this report.

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