Consumer Confidence Report (CCR)
for
ROCK ISLAND ARSENAL (RIA)

During the last year - 2000, RIA's drinking water met all EPA and state drinking water health standards. RIA's Water Treatment Plant safeguards its water supplies and our system had no violation of a contaminant level or any other water quality standard. This report summarizes the quality of water that we provided last year, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. For additional information on the RIA water system, please contact Mr. Chuck Swynenberg, SMARI-PWE, extension 2-2445 or Mr. Bryan Butler, Rock Island Integrated Services (RIIS), extension 2-5403.

The Rock Island Arsenal uses surface water from the Mississippi River. The water intake is on the north side of the island near building 9. The Arsenal also has a 1,500 foot deep well near the water treatment plant that can be used as a water source in a time of emergency. The deep well was not used to provide any water for the potable water distribution system during the past year.

The sources for drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. The Illinois EPA is preparing a source water assessment for the northern portion of the Mississippi River and surrounding watershed. The assessment will inform communities and drinking water systems about contaminants or potential contaminants that may negatively impact drinking water quality. The assessment has not been completed, but will contain similar information on drinking water contaminants. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of:

1. Microbial contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
2. Inorganic contaminants such as salts and metals, which may be naturally occurring result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
3. Pesticides and herbicides which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
4. 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 stormwater runoff and septic systems.
5. Radioactive contaminants which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. During the past year, the water produced from the Rock Island Arsenal water treatment plant met or exceeded all federal and state standards and no violations were recorded.

Drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water

from their health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

2000 Water Quality Data

The following table identifies the highest level of each detected contaminant and the range of levels for that contaminant found during the CCR reporting year.

Definition of Terms-

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Level Found: This column represents an average of sample results data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations:

n/a – not applicable.
nd – not detected at testing limits.
ppm – parts per million or milligrams per liter.
ppb – parts per billion or micrograms per liter.
NTU Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.
%<0.5 NTU – Percent samples less than 0.5 NTU.
 # pos/mo – number of positive samples per month.

Detected Contaminants

Contaminant (units)	MCLG	MCL	Level found	Range of detections	Date of Sample	Typical Sources of Contaminant
Microbial Contaminants						
Total Coliform Bacteria (# pos/mo)	0	>1	1			Naturally present in the environment.
Turbidity (%<0.5 NTU)	n/a	TT	100	100 - 100		Soil runoff.
Turbidity (NTU)	n/a	TT=5NTU max	0.3	n/a		Soil runoff.
Inorganic Contaminants						
Barium (ppm)	2	2	0.025	0.025 - 0.025		Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4	4	0.1	0.1 - 0.1		Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead (ppb)	0	AL=15	5	1 exceeding AL	9/30/99	Corrosion of household plumbing systems; Erosion of natural deposits.

Nitrate (as nitrogen) (ppm)	10	10	1.6	1.6 - 1.6	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate & nitrite (ppm)	10	10	1.6	1.6 - 1.6	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Disinfectants/Disinfection By-Product					
TTHMs (total trihalomethanes) (ppb)	n/a	100	30	24.0 - 36.0	By-product of drinking water chlorination.
Unregulated Contaminants					
Bromodichloromethane (ppb)	n/a	n/a	4	4.0 - 4.0	By-product of drinking water chlorination.
Chloroform (ppb)	n/a	n/a	25.5	19.0 - 32.0	Used as a solvent for fats, oils, rubber, resins; A cleansing agent; Found in fire extinguishers.
Dibromochloromethane (ppb)	n/a	n/a	0.5	nd - 1.0	Used as a chemical reagent; An intermediate in organic synthesis.
Sulfate (ppm)	n/a	n/a	29	29.0 - 29.0	Erosion of naturally occurring deposits.
State Regulated Contaminants					
Manganese (ppb)	n/a	150	18	18.0 - 18.0	Erosion of naturally occurring deposits.
Sodium (ppm)	n/a	n/a	14	14.0 - 14.0	Erosion of naturally occurring deposits; Used as water softener.

Water Quality Data Table Footnotes

Turbidity – Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Unregulated Contaminants – A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

Manganese – This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

Sodium – There is not a state of federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

2000 Non-regulated Contaminant Detections

The following table identifies contaminants detected within the past five years. State and federal regulations do not require monitoring for these contaminants and no maximum contaminant level (MCL) has been established. These detections are for informational purposes only. No mandated health effects language exists. The CCR Rule does not require that this information be reported; however, it may be useful when evaluating possible sources of contamination of characterizing overall water quality.

Definition of Terms-

Level Found: This column represents an average of sample results data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Abbreviations:

ppb – parts per billion or micrograms per liter.

pCi/l – picocuries per liter, used to measure radioactivity.

Additional Contaminants

Contaminant (units)	Level found	Range of detections	Date of Sample	Typical Sources of Contaminant
Boron (ppb)	33	33.0 - 33.0		Erosion of naturally occurring deposits; Used in detergents and as a water softener; Used in production of glass, cosmetics, pesticides, fire retardants, and for leather tanning.
Radium 226 (pCi/l)	2	2.0 - 2.0	12/9/96	Naturallly occurring in certain geological formations.
Monochloroacetic Acid (HAA) (ppb)	3.9	3.3 - 4.5		By-product of drinking water chlorination.
Dichloroacetic Acid (HAA) (ppb)	18.6	14.2 - 23.0		By-product of drinking water chlorination.
Trichloroacetic Acid (HAA) (ppb)	8.15	7.3 - 9.0		By-product of drinking water chlorination.

2000 Non-detected Contaminants

The following table includes contaminants monitored for, but not detected in the most recent sampling. The CCR Rule does not require that this information be reported; however, monitoring has indicated that these contaminants were not present in the water supply. In some cases, if a contaminant is not detected in a water supply, monitoring can be reduced to once every three or six years.

Definition of Terms:

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Level Found: This column represents an average of sample results data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.
Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Abbreviations:

n/a – not applicable.
nd – not detected at testing limits.
ppm – parts per million or milligrams per liter.
ppb – parts per billion or micrograms per liter.
ppt – parts per trillion, or nanograms per liter.
pCi/l – picocuries per liter, used to measure radioactivity.
 # pos/mo – number of positive samples per month.

Non-detected Contaminants

Contaminant (units)	MCGL	MCL	Level Found	Date of Sample	Typical Sources of Contaminant
Microbial Contaminants					
Fecal Coliform and E. Coli (#pos/mo)	0	0	nd		Human and animal fecal waste.
Radioactive Contaminants					
Beta/photon emitters (pCi/l)	0	50	nd		Decay of natural and man-made deposits.
Alpha emitters (pCi/l)	0	15	nd		Erosion of natural deposits.
Inorganic contaminants					
Antimony (ppb)	6	6	nd		Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic (ppb)	n/a	50	nd		Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Beryllium (ppb)	4	4	nd		Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries.
Cadmium (ppb)	5	5	nd		Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints.

Chromium (ppb)	100	100	nd		Discharge from steel and pulp mills; Erosion of natural deposits.
Copper (ppm)	1.3	AL=1.3	nd	9/30/99	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Cyanide (ppb)	200	200	nd		Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
Mercury (inorganic) (ppb)	2	2	nd		Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from crop land.
Nitrite (as nitrogen) (ppm)	1	1	nd		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium (ppb)	50	50	nd		Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium (ppb)	0.5	2	nd		Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.
Synthetic Organic Contaminants					
2,4-D (ppb)	70	70	nd		Runoff from herbicide used on row crops.
2,4,5-TP [Silvex] (ppb)	50	50	nd		Residue of banned herbicide.
Alachlor (ppb)	0	2	nd		Runoff from herbicide used on row crops.
Atrazine (ppb)	3	3	nd		Runoff from herbicide used on row crops.
Benzo(a)pyrene (ppt)	0	200	nd		Leaching from linings of water storage tanks and distribution lines.
Carbofuran (ppb)	40	40	nd		Leaching of soil fumigant used on rice and alfalfa.
Chlordane (ppb)	0	2	nd		Residue of banned termiticide.
Dalapon (ppb)	200	200	nd		Runoff herbicide used on rights of way.
Di(2-ethylhexyl)adipate (ppb)	400	400	nd		Discharge from chemical factories.
Di(2-ethylhexyl)phthalate (ppb)	0	6	nd		Discharge from rubber and chemical factories.
Dibromochloropropane (ppt)	0	200	nd		Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards.
Dinoseb (ppb)	7	7	nd		Runoff from herbicide used on soybeans and vegetables.
Diquat (ppb)	20	20	nd		Runoff from herbicide use.
Endothall (ppb)	100	100	nd		Runoff from herbicide use.
Endrin (ppb)	2	2	nd		Residue of banned insecticide.
Ethylene Dibromide (ppt)	0	50	nd		Discharge from petroleum refineries.
Heptachlor (ppt)	0	400	nd		Residue of banned pesticide.
Heptachlor Epoxide (ppt)	0	200	nd		Breakdown of heptachlor.
Hexachlorobenzene (ppb)	0	1	nd		Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene (ppb)	50	50	nd		Discharge from chemical factories.
Lindane (ppt)	200	200	nd		Runoff/leaching from insecticide used on cattle, lumber and gardens.
Methoxychlor (ppb)	40	40	nd		Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.

Oxamyl [Vydate] (ppb)	200	200	nd		Runoff/leaching from insecticide used on apples, potatoes, and tomatoes.
PCBs-Polychlorinated Biphenyls (ppt)	0	500	nd		Runoff from landfills; Discharge of waste chemicals.
Pentachlorophenol (ppb)	0	1	nd		Discharge from wood preserving factories.
Picloram (ppb)	500	500	nd		Herbicide runoff.
Simazine (ppb)	4	4	nd		Herbicide runoff.
Toxaphene (ppb)	0	3	nd		Runoff/leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants					
Benzene (ppb)	0	5	nd		Discharge from factories; Leaching from gas storage tanks and landfills.
Carbon Tetrachloride (ppb)	0	5	nd		Discharges from chemical plants and other industrial activities.
Chlorobenzene (ppb)	100	100	nd		Discharges from chemical and agricultural chemical factories.
O-dichlorobenzene (ppb)	600	600	nd		Discharge from industrial chemical factories.
P-dichlorobenzene (ppb)	75	75	nd		Discharge from industrial chemical factories.
1,2-dichloroethane (ppb)	0	5	nd		Discharge from industrial chemical factories.
1,1-dichloroethylene (ppb)	7	7	nd		Discharge from industrial chemical factories.
cis-1,2-dichloroethylene (ppb)	70	70	nd		Discharge from industrial chemical factories.
Trans-1,2-dichloroethylene (ppb)	100	100	nd		Discharge from industrial chemical factories.
Dichloromethane (ppb)	0	5	nd		Discharge from pharmaceutical and chemical factories.
1,2-dichloropropane (ppb)	0	5	nd		Discharge from industrial chemical factories.
Ethylbenzene (ppb)	700	700	nd		Discharge from petroleum refineries.
Styrene (ppb)	100	100	nd		Discharge from rubber and plastic factories; Leaching from landfills.
Tetrachloroethylene (ppb)	0	5	nd		Discharge from factories and dry cleaners.
1,2,4-trichlorobenzene (ppb)	70	70	nd		Discharge from textile-finishing factories.
1,1,1-trichloroethane (ppb)	200	200	nd		Discharge from metal degreasing sites and other factories.
1,1,2-trichloroethane (ppb)	3	5	nd		Discharge from industrial chemical factories.
Trichloroethylene (ppb)	0	5	nd		Discharge from metal degreasing sites and other factories.
Toluene (ppm)	1	1	nd		Discharge from petroleum factories.
Vinyl chloride (ppb)	0	2	nd		Leaching from PVC piping; Discharge from plastics factories.
Xylenes (ppm)	10	10	nd		Discharge from petroleum factories; Discharge from chemical factories.
Unregulated Contaminants					
1,1,1,2-Tetrachloroethane (ppb)	n/a	n/a	nd	10/26/99	

1,1,2,2-Tetrachloroethane (ppb)	n/a	n/a	nd	10/26/99	Discharge from industrial chemical factories, metal degreaser, found in paints and pesticides.
1,1-Dichloroethane (ppb)	n/a	n/a	nd	10/26/99	Discharge from industrial chemical factories, degreaser, finish removers.
1,1-Dichloropropene (ppb)	n/a	n/a	nd	10/26/99	
1,2,3-Trichloropropane (ppb)	n/a	n/a	nd	10/26/99	Discharge from industrial chemical factories, paint remover and cleaner.
1,3-Dichloropropane (ppb)	n/a	n/a	nd	10/26/99	
2,2-Dichloropropane (ppb)	n/a	n/a	nd	10/26/99	
3-Hydroxycarbofuran (ppb)	n/a	n/a	nd		
Aldicarb (ppb)	n/a	n/a	nd		Runoff from use as an insecticide, acaricide, and nematocide.
Aldicarb Sulfone (ppb)	n/a	n/a	nd		
Aldicarb Sulfoxide (ppb)	n/a	n/a	nd		
Bromobenzene (ppb)	n/a	n/a	nd	10/26/99	Discharge from industrial chemical factories; Motor oil additive.
Bromoform (ppb)	n/a	n/a	nd		Discharge from manufacturing plants; Used to dissolve dirt and grease.
Bromomethane (ppb)	n/a	n/a	nd	10/26/99	Runoff from use as a pesticide; Used in production of other chemicals.
Butachlor (ppb)	n/a	n/a	nd		Runoff from use as an herbicide.
Carbaryl (ppb)	n/a	n/a	nd		Runoff from use as a contact insecticide.
Chloroethane (ppb)	n/a	n/a	nd	10/26/99	Used as a refrigerant and solvent.
Chloromethane (ppb)	n/a	n/a	nd		Discharge from use as a refrigerant.
Dibromomethane (ppb)	n/a	n/a	nd	10/26/99	
Dicamba (ppb)	n/a	n/a	nd		Runoff from use as an herbicide.
M-Dichlorobenzene (ppb)	n/a	n/a	nd	10/26/99	Occurs as a result of chlorination of chlorobenzene.
Methomyl (ppb)	n/a	n/a	nd		Runoff from use as an insecticide.
Metolachlor (DUAL) (ppb)	n/a	n/a	nd		Runoff from use as an herbicide.
Metribuzin (ppb)	n/a	n/a	nd		Runoff from use as an herbicide.
Propachlor (ppb)	n/a	n/a	nd		Runoff from use as an herbicide.
State Regulated Contaminants					
Aldrin (ppb)	n/a	1	nd		Runoff from use as an insecticide, not used since 1987.
DDT (ppb)	n/a	50	nd		Runoff from use as a contact insecticide.
Dieldrin (ppb)	n/a	1	nd		Runoff from use as an insecticide, not used since 1987.
Iron (ppb)	n/a	1000	nd		Erosion from naturally occurring deposits.
Zinc (ppb)	n/a	5000	nd		Naturally occurring; Discharge from metal factories.
Additional Contaminants					
Acetochlor (ppb)	n/a	n/a	nd		Runoff from use as a pre-emergent herbicide.
Acifluorfen (ppb)	n/a	n/a	nd		Runoff from use as a pre- and post-emergent herbicide.

Chlorotoluenes (total) (ppb)	n/a	n/a	nd	10/26/99	Found in solvents; Used in organic synthesis and as a dyestuff intermediate.
Cis-1,3-Dichloropropene (ppb)	n/a	n/a	nd	10/26/99	Runoff from use as a soil fumigant; Discharge from pesticide manufacturing plants.
Cyanizine (ppb)	n/a	n/a	nd	7/27/99	Runoff from use as a herbicide.
Dacthal (DCPA) (ppb)	n/a	n/a	nd		Runoff from use as a pre-emergent herbicide.
Methyl Tert-butyl Ether (MTBE) (ppb)	n/a	n/a	nd		Exhaust from vehicles; Used as an octane booster in gasoline.
Molybdenum (ppb)	n/a	n/a	nd		Erosion from naturally occurring deposits; Used in manufacture of special steels.
Nickel (ppb)	n/a	n/a	nd		Erosion from naturally occurring deposits; Discharge from nickel plating, storage batteries, magnets, electrodes and spark plugs.
Radium 228 (pCi/l)	n/a	n/a	nd	12/9/96	Naturally occurring in cerain geological formations.
Trans-1,3-Dichloropropene (ppb)	n/a	n/a	nd	10/26/99	Runoff from use as a soil fumigant, nematocide; Discharge from pesticide manufacture.
Treflan (Trifluralin) (ppb)	n/a	n/a	nd		Runoff from use as an herbicide.
Monobromoacetic Acid (HAA) (ppb)	n/a	n/a	nd		By-product of drinking water chlorination.
Dibromoacetic Acid (HAA) (ppb)	n/a	n/a	nd		By-product of drinking water chlorination.

2000 Violation Summary Table

This table is intended to assist you in the identification of year 2000 violation(s) that are required to be reported and explained in your CCR. The table does NOT include the required explanation of the noted violation(s) and you will need to provide this information as explained on page 11 of the CCR Guidance Manual.

Violation Description	Start	End

No drinking water quality violations were recorded during 2000

2000 Source Water Assessment Summary

Based upon Section 141.153(b)2 of the CCR rule, community water supplies are required to report a summary of their source water susceptibility determination, which are compiled by the Illinois EPA.

As of the date of this report, this summary has not been completed. The Illinois EPA must complete all source water assessments by May 2003. As this assessment becomes available, our supply will summarize the results and incorporate the information into this report, as required.

Further information on our community water supply's source water assessment is available on the USGS web site at http://il.water.usgs.gov or by calling the Groundwater Section of the Illinois EPA at 217-785-4787.