



Colorado Department
of Public Health
and Environment

HEALTH MATTERS

A Newsletter for the Rocky Mountain Arsenal Neighborhood

Fall 2005

AIR QUALITY AT THE ROCKY MOUNTAIN ARSENAL

As has been reported in previous *Health Matters* editions, the news on air quality at the Rocky Mountain Arsenal (Arsenal) continues to be positive and shows that the cleanup is progressing safely. Air monitoring through July 2005 demonstrates that health protective limits have been met for all of the Arsenal's 27 chemicals of concern since the soil cleanup began in October 1997.

During the past year, seven permanent monitoring stations on the Arsenal regularly tested for chemicals that could become airborne. Two more stations are located in the surrounding communities: one at Montbello High School and another at the South Adams County Fire Station (see map page 2). As an independent check, the U.S. Environmental Protection Agency also conducted air quality monitoring at three of the Arsenal locations. In 2004 alone, more than 13,600 tests were conducted to monitor air quality.

Air monitoring is an important part of public health oversight activities and will continue until the soil cleanup is completed. More detailed monitoring results can be found on the Internet at www.cdphe.state.co.us/rma.

BASIN F WASTEPILE PLANNING MOVES FORWARD

In Spring 2006, excavation of the contaminated soil stored in the Basin F Wastepile and disposal in the onsite landfill will begin. The contaminated soil has the potential to emit strong odors and chemical emissions when it is disturbed, so a detailed plan has

been designed to ensure that nuisance odors and emissions will not impact the communities surrounding the Arsenal.

This four-part plan includes:

1. Weather Forecasting

An extensive evaluation was conducted to plan for the meteorological conditions that could be expected during the cleanup, which is scheduled to last for more than one year. Based on this evaluation, weather conditions that could cause odors to be more noticeable were identified and acceptable weather conditions for excavation were established. When adverse weather is forecast (for example, still air that leads to the "brown cloud"), work will be slowed, stopped or postponed to later in the day when weather conditions are more favorable (for example, breezy conditions). A 40-meter tall meteorological tower was constructed for this project to give real-time weather measurements, which will significantly aid project staff in determining

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Can you guess what this may be?...see page 3

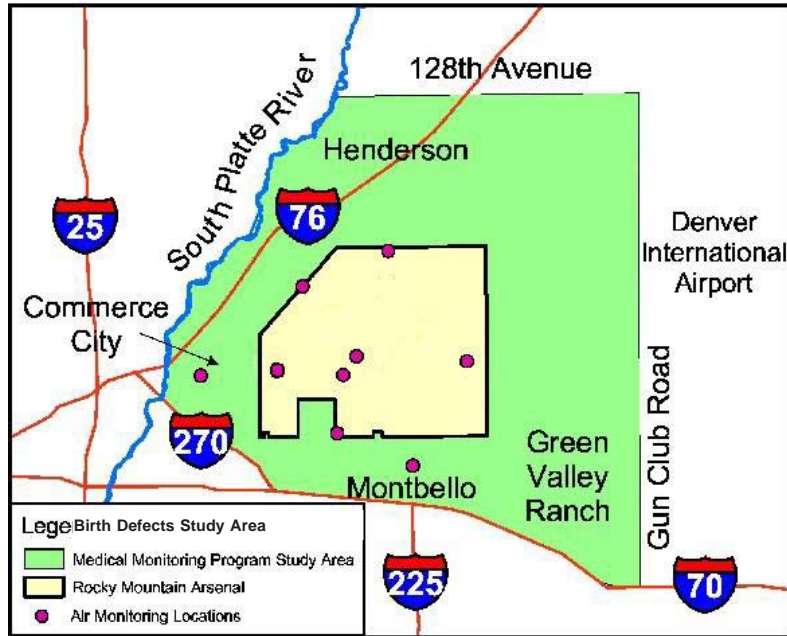


Health Matters is an annual newsletter published by the Colorado Department of Public Health and Environment to keep neighbors of the Rocky Mountain Arsenal informed on health monitoring results during the cleanup of the site.

No state tax dollars were used in the printing of this newsletter.

Results of Birth Defects Monitoring Near the Arsenal

Birth Defects Study Area and Air Monitoring Locations



Among the goals identified in 1998 by the Rocky Mountain Arsenal Medical Monitoring Advisory Group was to enhance community assurance that exposure prevention measures during the Arsenal soil cleanup are effective. One method recommended by the advisory group was the collection and publication of health indicator data, including the frequency of birth defects in communities surrounding the Arsenal (see map). This recommendation was implemented by Colorado Responds to Children with Special Needs (CRCSN), the Colorado Department of Public Health and Environment's program for monitoring birth defects. Earlier results of the birth defects monitoring project were reported in the February 2001 issue of the *Health Matters* newsletter. This issue of the newsletter provides a review and update with the most current information.

Results—Birth defects monitoring results through March 2005 continue to be stable. More specifically, rates of several types of birth defects monitored since the beginning of the soil remediation in 1997 show no indication of increases above the baseline rates beyond that due to expected variation. Baseline rates were estimated for the same communities surrounding the Arsenal using birth defect data for the eight years before the environmental cleanup began (1989-1996). In addition, no unusual groupings of birth defects were identified in specific communities or neighborhoods. These results, along with air quality monitoring results, show that the Arsenal environmental cleanup is proceeding well.

Children born to women who live in the communities surrounding the Rocky Mountain Arsenal and who are diagnosed with birth defects registered with the program become part of the Community Notification and Referral Program. This Program helps connect families with services and support available in their communities. The community agencies involved include local

health departments, community nursing services, and early childhood intervention programs.

Updates of the results of ongoing birth defects monitoring are published periodically throughout the year at the Rocky Mountain Arsenal Medical Monitoring Program web site: www.cdphe.state.co.us/rma.

For more information call the Colorado Department of Public Health and Environment at (303)-692-2649.

The following is reprinted with permission from the Centers for Disease Control and Prevention National Center on Birth Defects and Developmental Disabilities: <http://www.cdc.gov/ncbddd/bd/abc.htm>. Further information on the specific topics underlined is available through this website.

Not all birth defects can be prevented, but a woman can take some actions that increase her chance of having a healthy baby. Many birth defects happen very early in pregnancy, sometimes before a woman even knows she is pregnant. Remember that about half of all pregnancies are unplanned.

ABC's...Selected Pregnancy Tips

A Avoid exposure to toxic substances and chemicals — such as cleaning solvents, lead and mercury, some insecticides, and paint. Pregnant women should avoid exposure to paint fumes.

B Be sure to see your doctor and get prenatal care as soon as you think you're pregnant. It's important to see your doctor regularly throughout pregnancy, so be sure to keep all your prenatal care appointments.

Breastfeeding is the healthiest choice for both you and your baby. Talk to your doctor, your family and friends, and your employer about how you choose to feed your baby and how they can support you in your decision.

C Cigarette smoking during pregnancy can result in low birth weight babies. It has been associated with infertility, miscarriages, tubal pregnancies, infant mortality and childhood morbidity. Additionally, cigarette smoking may cause long-term learning disabilities. If you smoke, you should try to quit. Secondary smoke may also harm a mother and her developing baby. It is a good idea to ask people to stop smoking around you during your pregnancy and after the baby is born.

D Drink extra fluids (water is best) throughout pregnancy to help your body keep up with the increases in your blood volume. Drink at least 6 to 8 glasses of water, fruit juice, or milk each day. A good way to know you're drinking enough fluid is when your urine looks like almost-clear water or is very light yellow.

E Eat healthy to get the nutrients you and your unborn baby need. Your meals should include the five basic food groups. Each day you should get the following: 6-11 servings of grain products, 3-5 servings of vegetables, 2-4 servings of fruits, 4-6 servings of milk and milk products, 3-4 servings of meat and protein foods. Foods low in fat and high in fiber are important to a healthy diet.

Continued at top of the next page

We have a Web site!!

You can find information on the website about everything from the history of the Arsenal to details on the chemicals that were manufactured there. Visit the site at www.cdphe.state.co.us/rma.

F Take 400 micrograms of [folic acid](#) **daily both before pregnancy and during the first few months of pregnancy** to reduce the risk of birth defects of the brain and spine. All women who could possibly become pregnant should take a vitamin with folic acid, every day. It is also important to eat a healthy diet with fortified foods (enriched grain products, including cereals, rice, breads, and pastas) and foods with natural sources of folate (orange juice, green leafy vegetables, beans, peanuts, broccoli, asparagus, peas, and lentils).

G [Genetic testing](#) should be done appropriately. It's important to know your family history. If there have been problems with pregnancies or birth defects in your family, report these to your doctor. Also, genetic counselors can talk with you about the information you might need in making decisions about having a family. You can call a major medical center in your area for help in finding a board-certified genetic counselor.

H [Hand-washing](#) is important throughout the day, especially after handling raw meat or using the bathroom. This can help prevent the spread of many bacteria and viruses that cause infection.

I Take 30 milligrams of [iron](#) during your pregnancy as prescribed by your doctor to reduce the risk of anemia later in pregnancy. All women of childbearing age should eat a diet rich in iron.

J [Join a support group for moms](#) to be, or join a class on parenting or childbirth.

K [Know your limits](#). Let your physician know if you experience any of the following: pain of any kind, strong cramps, uterine contractions at 20-minute intervals, vaginal bleeding, leaking of amniotic fluid, dizziness, fainting, shortness of breath, palpitations, tachycardia (rapid beating of the heart), constant nausea and vomiting, trouble walking, edema (swelling of joints), or if your baby has decreased activity.

*For the entire list of ABC's see the website at :
<http://www.cdc.gov/ncbddd/bd/abc.htm>.*

Please consult your doctor on any and all issues regarding your pregnancy. Although these may be good general pregnancy tips, every pregnancy is different, and each deserves the attention of a doctor or health care provider.

The Answer to the Question on Page 1

A whale baleen.

Some whales have plates of baleen that hang from the upper jaw instead of teeth. The baleen is used to filter tiny food particles from the water. You wouldn't expect to find whale baleen here in Colorado, but we have one, thanks to the U.S. Fish and Wildlife Service's Office of Law Enforcement at the National Eagle and Wildlife Property Repository.

This federal agency is responsible for ensuring compliance with wildlife laws in order to combat the illegal trade and import/export of wildlife, including threatened and endangered species from around the world. Wildlife Inspectors from the U.S. Fish and Wildlife Service confiscate animals, parts and products illegally imported into this country. The large warehouse containing all of the items confiscated nationwide is located at the Rocky Mountain Arsenal National Wildlife Refuge.

You'd be surprised at the types of things people try to smuggle into the United States. Many people aren't aware that it

is often illegal to bring animal products such as snakeskin boots, fur coats, baleen from a whale or lizard skin wallets into the country without a permit. But there are also smugglers who knowingly try to get animal products into this country for either personal use or to sell on the black market. These items include elephant ivory, zebra skins, live monkeys and birds and thousands of other products that are either threatened and endangered species or illegal to bring into the United States without a permit.

The repository catalogs and stores these items and has a program to donate items to public schools, universities, zoos and museums throughout the country for educational use. The "Suitcase for Survival" is a program that offers school districts a "suitcase" (actually a box), containing educational materials and sample wildlife parts and products for use in classrooms throughout their district.

School districts may call Doni Sprague at 303-287-2110 x 225 to receive more information about this program or you may visit www.fws.gov.



How Can I Get More Information?

For questions about your health and the Rocky Mountain Arsenal cleanup, call the Rocky Mountain Arsenal Health Line toll free 1-888-671-7848, 24 hours a day, seven days a week.

For questions about the Medical Monitoring Program, call:
Colorado Department of Public Health and Environment
Warren Smith (303) 692-3300

For questions about odors, call:
Tri-County Health Department
Information and Odor Response Line
(303) 286-8032

To talk with EPA about the Rocky Mountain Arsenal, call:
U.S. Environmental Protection Agency
Catherine Roberts (303) 312-6025
roberts.catherine@epa.gov

For information on the cleanup, call:
Remediation Venture Office of Public Relations
Susan Ulrich (303) 289-0250 or visit
www.pmrma.army.mil/rma.html

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when odor might present a potential problem beyond Arsenal boundaries.

2. Slow Start Demonstration

In order to confirm the effectiveness of the planned odor and emission control measures, excavation of contaminated soil will start at a very slow rate. During this time, the project will be carefully monitored to ensure that the odor and emission control methods are working. If these measures are proven effective, the project will move into full operation.

3. Odor Monitoring

Project staff will measure odor levels close to the project boundary to ensure that if an odor problem develops, it will be detected and managed before reaching the Arsenal fence line. Odor monitoring will be conducted hourly throughout the workday, after the project shutdown and at night. If odors exceed nuisance levels, project staff will apply additional controls (for example, odor-controlling foam or a layer of clean soil), slow down the work, and if necessary, suspend odor-causing activities until they can be satisfactorily controlled.

4. Additional Air Quality Monitoring

Additional air quality monitors will be placed close to the excavation and disposal areas. During the "slow start"

demonstration, the emissions measurements will be compared to design estimates to determine whether the project is performing as expected. If chemical concentrations in air reach pre-established limits, the excavation and disposal activities will be slowed or suspended until appropriate controls are in place. These "close in" monitors help assure that health protective emission limits are met at the Arsenal fence line, visitor locations and community monitors.

This extensive forecasting, demonstration, monitoring and response plan is designed to ensure that any odor coming from the Basin F Wastepile project does not become a nuisance to the community. However, if you have a concern with suspected Arsenal-related odors, Tri-County Health Department operates an Odor Response Line at 303-286-8032 to respond to citizen calls 24-hours-a-day, seven-days-a-week. This plan also helps ensure that emission limits designed to protect public health are achieved. The Rocky Mountain Arsenal Health Line, 1-888-671-7848, is a toll free number operated by the Rocky Mountain Poison and Drug Center in collaboration with the Colorado Department of Public Health and Environment. This service allows citizens to call 24-hours-a-day to speak to a nurse about Arsenal-related health questions.



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