

A6 Friday, May 22, 1998

Four escape injury in Colfax hazardous-materials incident.

By Gloria Beverage
Gold Country News Service

Four people escaped serious injury Thursday morning after inhaling a small amount of poisonous fumes at a Colfax water treatment facility.

At about 9 a.m., reported Placer County Water Agency, risk manager Bryant Newcomb, a Sierra Chemical Co. truck driver arrived to deliver sodium hypochlorite to PCWA's water treatment facility on Pleasant Street.

Instead of hooking up to the appro-

private tank, the driver apparently began pumping the chemicals into tank filled with aluminum sulfate creating a mixture of poisonous fumes, Newcomb said.

The driver and a PCWA employee, Mike Williams, were transported to Sutter Auburn Faith Hospital "as a precautionary measure" after inhaling a small amount of chlorine gas, Newcomb said. Both were later released.

Colfax volunteer firefighters, Mike Viscie and Agnie Hannah were the first emergency personnel to arrive on the scene and assisted in shutting down the tanks, noted Placer

County Sherriff's Sgt. Dan Wilson.

While Viscie and Hannah were treated at the scene for minor respiratory problems, both later complained of chest pains and were transported to the hospital, reported Fire Chief Scott Brady.

With the chemicals quickly stabilized, only two nearby residents had to be evacuated for a short time, Sgt. Wilson said.

The Colfax Volunteer Fire Department Environmental Health and AMR Ambulance also responded to the scene.

operations at Sydney Water Corp. *Giardia* and

Cryptosporidium broke through the new Prospect Water

filtration plant first in late July and again in late August.

The cause of the second outbreak may be different than those discussed in an interim report on the first alert, said investigator Peter McClellan.

The report, released August 19, details five possible causes of the contamination and discounts all but two: problems at the plant and downstream

contamination from a bat-infested pipeline or from inflow of contaminated groundwater into the clearwells. The report called for more investigation and for

immediate action on the "continuing source of intermittent pollution at or near the Prospect facilities."

No related waterborne illnesses were attributed to the first outbreak, possibly because all detected parasites were dead, said McClellan, but the "high

and in some cases extreme levels of contamination" did justify a major health concern. Sydney Water has since yielded the responsibility of notifying the public of potential health

problems to the health department.

Alpine recuperates from *E. coli* problem

Alpine, Wyo., got a boost of confidence July 28 when Gov. Jim Geringer drank a glass of

Industries. medical clinic, day care center, a recreation center, and homes.

The official toll rose to 64 confirmed cases, many of them visitors from other states. State epidemiologist Gayle Miller said the source will probably never be absolutely confirmed, but a backflow from a trough at a nearby corral or

contaminated wildlife fecal matter could have washed into the spring that had been the primary source of the town's water. The spring, which "appears to be under the influence of surface water," said Miller, remains closed.

Crypto grips Austin suburb

A late July waterborne cryptosporidiosis outbreak in Brushy Creek, Texas, probably sickened up to 1,300 people, health officials say, based on 53 confirmed cases and about 500 people reporting symptoms. Four of five Brushy Creek Municipal Utility District wells and at least 24 private wells were contaminated after 170,000 gal (640,000 L) of concentrated raw sewage

and rock. The utility, which serves 6,000 residents, must continue to use an alternate source until filtration is installed on the wells, the Texas Natural Resources

Conservation Commission has ordered. Investigators from the Centers for Disease Control and Prevention are also completing outbreak studies.

Chlorine leak injures 10 in Michigan

Holland, Mich., officials are investigating how and why a delivery truck dumped about 600 gal (2,300 L) of sodium hypochlorite into a 2,300-gal (8,700-L) pressurized tank containing 400 gal (1,500 L) of aluminum sulfate, causing the release of chlorine gas into the water treatment plant and sending 10 people to the hospital for treatment (one was kept overnight). The July 21 accident forced the treatment process to be stopped at the Lake Michigan water plant, although water continued to flow to customers from finished water reservoirs. Other area providers also boosted service.

life of the variance technology, systems must comply with the terms and conditions of the variance within five years. Also, variance technologies might not achieve compliance but must achieve the maximum contaminant reduction or inactivation that is affordable for its size and source water quality.

As mandated by the SDWA, small system variances are not available for microbial contaminants or their indicators or for contaminants regulated before 1986 at the pre-1986 standard (variances for such contaminants would be available if USEPA tightens them in the future, but only up to pre-1986 levels).

Also, small system variances can only be issued when USEPA lists affordable variance technologies it has found to be generally protective of health (required guidance will discuss the basis for such a finding). States must also determine on a site-specific basis that the chosen variance technology will adequately protect health.

USEPA will provide guidance to help states make such decisions (including consideration of special risks to sensitive subpopulations) and set terms and conditions to ensure such protection. USEPA has opted to dissuade states from granting variances to systems following completion of an exemption term.

Small system technologies

In the August 6 *Federal Register*, USEPA published a notice of affordable technologies that can be used for compliance with 80 existing regulations in three size categories of small systems. The list of technologies is an update of the August 1997 list for the Surface Water Treatment Rule, adding backwashable depth filters but rejecting point-of-entry devices and certain emerging technologies. USEPA also adds applicability information for listed technologies, including required operator skill levels. Additionally, USEPA says small systems must use the Total Coliform Rule compliance technologies listed in 1989 and lists compliance technologies for all other existing regulations, including point-of-use units for inorganics, synthetic organics, and radionuclides.

USEPA has not identified any variance technologies for current regulations, claiming all have affordable compliance technologies under national-level criteria (which assert households can afford to pay up to 2.5 percent of median income for water) or are ineligible for variances. The agency notes systems that can't afford to install the "affordable" compliance technologies could get relief via exemptions based on state-level affordability criteria. USEPA seeks comment on its new variance analysis methodology, described as an "initial screening effort" subject to revision.

These articles first appeared in recent issues of WATERWEEK, AWWA's weekly fax newsletter. Web users can find hot links for sites and documents reported in these stories at WATERWEEK's Web page <awwa.org/waterwk.htm>. WATERWEEK is the best way to stay on top of the news in the drinking water field. To subscribe, contact Janice Barrett, (303) 347-6167; fax (303) 795-1989; e-mail <jbarrett@awwa.org>. To contact WATERWEEK Editor Mark Scharfenaker, call (303) 347-6263 or e-mail <mscharfe@awwa.org>.

Accident Releases Lethal Gas

A chemical accident at Mattawoman Wastewater Treatment Plant (Mason Springs, Md.) on June 14 generated chlorine gas that led to the evacuation of the 22 area residents. Seven people at the accident site had to be treated at a La Plata, Md., hospital.

The incident began shortly before 7:45 a.m., according to Charles County spokesperson Nina Voehl. A tanker truck delivering ferric chloride to the facility pumped about 400 gal (1500 L) of the chemical into a sodium hypochlorite tank. The chemicals mixed and produced chlorine gas, which escaped the indoor tank and spread throughout the 40-ft x 50-ft (12-m x 15-m) building. The gas also escaped the building, extending about 20 ft (6 m) on each side and drifting south about 100 ft (30.5 m) from the building, said Jerome Michael, facility director.

Mattawoman uses ferric chloride to precipitate phosphorus, while sodium hypochlorite is used for effluent disinfection. The two chemicals are never mixed intentionally in the facility's operation. However, mixing them produces chlorine gas, which burns the lungs and interferes with respiration. Short-term inhalation of the gas can cause burns, difficulty breathing, headache, dizziness, bluish skin color, and lung damage, according to the chemical's material safety data sheet.

Five Mattawoman employees, the delivery truck driver, and another delivery person were exposed to the fumes and went to Civista Medical Center (La Plata, Md.). All were treated and released, except the chemical delivery driver who remained overnight for observation. Everyone who came in contact with the fumes went to the hospital "for safety's sake," according to Voehl.

County officials evacuated a 0.5-mi (0.8-km) area surrounding the facility as a precaution, Voehl said. The 22 peo-

ple cleared from their homes were allowed to return almost immediately once the extent of the problem was assessed, she said.

The Mattawoman personnel relied on their training to deal with the incident by evacuating the area and alerting the proper agencies. Personnel followed the facility's emergency response plan for hazardous chemicals, Michael said. Calls were made to 911, the office of emergency risk management, and the director of emergency management. Regional hazardous materials teams re-

sponded to the incident and contained the gas.

"A lot of people here pitched in to help and make sure everyone was receiving the aid they needed," Michael said.

How the chemical was put in the wrong tank still is under investigation, Voehl said. At press time, no possibilities had been ruled out, but Voehl indicated that the accident might have resulted from a miscommunication or a mistake by the delivery driver.

— Steve Spicer, Operations Forum

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Subject: Workers hospitalized after chemical reaction at water plant

Posted at 8:58 p.m. EST Tuesday, February 29, 2000

Workers hospitalized after chemical reaction at water plant

NASHVILLE, Tenn. -- (AP) -- An accidental mix of odor control chemicals at a downtown

water treatment plant

Tuesday created a toxic cloud that sickened about 30 workers.

A contractor driving a tanker poured a chemical in the wrong tank about 10 a.m., said David Tucker, spokesman for the Metro Water Services. The chemical reaction formed chlorine vapors.

About 50 workers were evacuated. Some complained of eye, throat and nose irritation, and had trouble breathing.

The most seriously affected were given oxygen by paramedics and taken to area hospitals where they were treated and released.

The tanker driver pumped sodium hypochlorite, a bleach used for odor, into a tank with the residue of ferric chloride, another odor control chemical, Tucker said.

Hazardous materials workers removed the hose from the tank and reopened the building after about an hour. Tucker said the incident was being investigated.

HYPO ACCIDENT