exposure is leukemia, specifically acute myelogenous leukemia (AML), which is the only form of cancer that is consistently associated with high levels of occupational exposures to benzene.

The theoretical risk of cancer from exposure to benzene depends on the concentration of benzene in the air and the length of exposure. The maximum concentration of benzene in indoor air at the Everyday Store site was 24.7 $\mu g/m^3$. If a person were exposed to this maximum concentration of benzene continuously (24 hours per day) for a lifetime (70 years), the theoretical increased risk for cancer would be less than 1 in 10,000. This risk is not considered to be a significant increased risk. The actual risk for cancer would be much less than the 1 in 10,000 because the exposures would be intermittent, they would be for fewer than 70 years, and the average concentrations of benzene would be lower. Therefore, indoor air exposures to benzene are not expected to pose a significant cancer risk.

Child Health Considerations

For several reasons, children are at greater risk than are adults from certain kinds of exposure to hazardous substances. Children are smaller than adults, which results in higher doses of chemical exposure per body weight. Children are often more sensitive to the effects of chemical exposures than are adults and can sustain permanent damage if toxic exposures occur during critical growing stages. Children spend more time outside than do adults, which increases the likelihood that the children will come into contact with chemicals in the environment. Children are shorter than adults and breathe air closer to the ground. Finally, children depend on adults for risk identification and avoidance. For these reasons, ATSDR and EPA developed the chemical comparison values for children's exposures that were used in preparing this report. Therefore, these comparison values would be protective of children that live or attend schools on the site.

Conclusions

CDPHE concludes that the exposure to benzene documented in the sampling described in this document does not represent a risk for non-carcinogenic or carcinogenic health effects. The highest level of benzene detected, 24.7 $\mu g/m^3$, is below the EPA RfC of 30 $\mu g/m^3$ for noncarcinogenic effects. Furthermore, the estimated exposure to benzene in indoor air would not be expected to pose a significant cancer risk. Therefore, CDPHE considers these exposures to represent a public health hazard category of **"No Apparent Public Health Hazard"**. [See Appendix A for a description of ATSDR's public health hazard categories.]

Recommendations

The Colorado Oil and Public Safety should continue to monitor indoor air of affected residences, schools, and other buildings on a quarterly basis to identify any changes in the concentrations of volatile organic chemicals (VOCs).

Public Health Action Plan (PHAP)

The Public Health Action Plan (PHAP) for the Everyday Store site contains descriptions of the actions to be taken by CDPHE at or in the vicinity of the site. The purpose of a PHAP is to ensure that this Health Consultation not only identifies public health hazards but also provides a plan of action designed to mitigate and prevent adverse human health effects that result from exposure to hazardous substances in the environment. The environmental sampling data that has been collected and the remedial activities that have been conducted at the site have been evaluated within the context of human exposure pathways and other relevant public health factors. Included is a commitment by CDPHE to monitor this plan to ensure that it is implemented. CDPHE will provide followup, as needed, to this PHAP, outlining the actions that have been completed and the actions that are in progress. The public health actions to be implemented by CDPHE are as follows:

Actions Undertaken

(1) Colorado Division of Oil and Public Safety (OPS) has sampled the indoor air of numerous residences and other structures, including two schools in the vicinity of the site property. In addition, OPS has taken action to reduce benzene exposure to below the level of public health concern.

(2) OPS, in conjunction with the town of La Salle and the Weld County Health Department, held public meetings to answer community questions and explain the clean-up process.

(3) OPS is performing, on a quarterly basis, indoor and outdoor air sampling at the North Valley Middle School and four residences near the Everyday Gas Station. OPS also sampled the indoor air of numerous residences and other structures, including two schools, in the vicinity of the site property. In addition, OPS has taken action to reduce benzene exposure to below the level of public health concern.

(4) OPS has installed window-mounted ventilation fans in the basements of four homes located near the site as a precautionary measure against vapor intrusion into the homes.

(5) The Department of Public Health has gathered the community's specific health and site-related concerns through surveys and interviews.

(6) The Department of Public Health created a Community Involvement Plan (CIP) to identify and document community concerns and to identify community-relations activities that encourage two-way communication of health issues, environmental concerns, and clean-up activities at the Everyday Store Site.

(7) The Department of Public Health established an information repository in the Weld County Centennial Park Branch Library, 2227 23rd Avenue, Greeley, CO 80634.

Actions Planned

(1) The Department of Public Health, OPS, and officials from the town of La Salle will hold a public meeting to provide interpretation of the health consultation.

(2) The Department of Public Health will offer a variety of mechanisms to explain current activities, answer health-related and other questions, and provide the community with a means of communicating their concerns, recommendations, and thoughts to the agency.

(3) The Department of Public Health will prepare, as necessary, fact sheets and site updates describing health-related issues and other relevant information about the site.

(4) Upon request, the Department of Public Health will provide a copy of this document to any interested party.

(5) As additional indoor air data become available, the Department of Public Health will evaluate the public health implications of indoor air exposures to contaminants found to be related to the site.

(6) The Department of Public Health will revise and update this PHAP as necessary to reflect new events related to the site and to meet the changing needs of the community.

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Author, Designated Reviewer, and Technical Advisor

Author

Rickey Tolliver, MPH
Colorado Department of Public Health and Environment
Environmental Health Studies

Designated Reviewer

Margaret Schonbeck
Colorado Department of Public Health and Environment
Environmental Health Studies

ATSDR Technical Advisor

Jennifer Freed, MPH
Division of Health Assessment and Consultation
Agency for Toxic Substances and Disease Registry

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Appendix A. ATSDR's Public Health Hazard Categories

Category / Definition	Data Sufficiency	Criteria
A. Urgent Public Health Hazard This category is used for sites where short-term exposures (< 1 yr) to hazardous substances or conditions could result in adverse health effects that require rapid intervention.	This determination represents a professional judgment based on critical data that ATSDR has judged sufficient to support a decision. This determination does not necessarily imply that the available data are complete; in some cases, additional data may be required to confirm or further support the decision made.	Evaluation of available relevant information* indicates that site-specific conditions or likely exposures have had, are having, or are likely to have in the future, an adverse impact on human health that requires immediate action or intervention. Such site-specific conditions or exposures may include the presence of serious physical or safety hazards.
B. Public Health Hazard This category is used for sites that pose a public health hazard due to the existence of long-term exposures (> 1 yr) to hazardous substance or conditions that could result in adverse health effects.	This determination represents a professional judgment based on critical data that ATSDR has judged sufficient to support a decision. This determination does not necessarily imply that the available data are complete; in some cases, additional data may be required to confirm or further support the decision made.	**Evaluation of available relevant information* suggests that, under site-specific conditions of exposure, long-term exposures to site-specific contaminants (including radionuclides) have had, are having, or are likely to have in the future, an adverse impact on human health that requires one or more public health interventions. Such site-specific exposures may include the presence of serious physical or safety hazards.**
C. Indeterminate Public Health Hazard **This category is used for sites in which "*critical*" data are *insufficient* with regard to extent of exposure and/or toxicologic properties at estimated exposure levels.**	This determination represents a professional judgment that critical data are missing, and ATSDR has judged the data are insufficient to support a decision. This determination does not necessarily imply that all data are incomplete, but suggests that some additional data are required to support a decision.	**Health assessors must determine, using professional judgment, the "criticality" of such data and the likelihood that the data can be obtained and will be obtained in a timely manner. Where some data are available, even limited data, health assessors are encouraged to select, to the extent possible, other hazard categories and to support their decision with clear narrative that explains the limits of the data and the rationale for the decision.**
D. No Apparent Public Health Hazard This category is used for sites where human exposure to contaminated media may be occurring, may have occurred in the past, and/or may occur in the future, but the exposure is not expected to cause any adverse health effects.	This determination represents a professional judgment based on critical data that ATSDR considers sufficient to support a decision. This determination does not necessarily imply that the available data are complete; in some cases, additional data may be required to confirm or further support the decision made.	Evaluation of available relevant information* indicates that, under site-specific conditions of exposure, exposures to site-specific contaminants in the past, present, or future are not likely to result in any adverse impact on human health.
E: No Public Health Hazard **This category is used for sites that, because of the absence of exposure, do NOT pose a public health hazard.**	**Sufficient evidence indicates that no human exposures to contaminated media have occurred, none are now occurring, and none are likely to occur in the future**	

**Such as environmental and demographic data; health outcome data; exposure data; community health concerns information; toxicologic, medical, and epidemiologic data; monitoring and management plans.*

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Certification

This health consultation was prepared by the Colorado Department of Public Health and Environment under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the health assessment was begun.

Jennifer A. Freed
Technical Project Officer
Division of Health Assessment and Consultation (DHAC)
ATSDR

The Division of Health Assessment and Consultation, ATSDR, has reviewed this health consultation, and concurs with its findings.

Roberta Erlwein
Team Leader,
SPAB, DHAC, ATSDR