

Health Consultation

MID-AMERICA TANNING COMPANY

SERGEANT BLUFF, WOODBURY COUNTY, IOWA

EPA FACILITY ID: IAD085824688

FEBRUARY 17, 2005

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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Purpose

On June 23, 2004, the U.S. Environmental Protection Agency (EPA) announced its intention to remove the Mid-American Tanning Company site from the National Priorities List (NPL). The EPA is inviting public comment on the proposed de-listing of the site from the NPL. The Iowa Department of Public Health in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR) prepared this health consultation to review the current status of the Mid-America Tanning Company site and to provide an evaluation of any public health consequences of de-listing the site. The information in this health consultation was current at the time of writing. Data that emerges later could alter this document's conclusions and recommendations.

Background

The Mid-America Tanning Company 100-acre site is an abandoned tanning facility, located south of Sergeant Bluff, Iowa. This site processed hides under several names between 1969 and 1989. In 1979, the Mid-America Tanning Company disposed of an estimated 900 cubic yards of filter-pressed tannery sludge containing heavy metals into two unlined trenches on the property. An unknown amount of sludge containing heavy metals was also land-applied on two cornfields north and south of the tanning building, contaminating approximately 12,000 cubic yards of soil. After site operations discontinued, two on-site aeration basins were found to contain approximately 45,000 cubic yards of sediments contaminated with heavy metals. An on-site polishing basin was found to contain approximately 40,500 cubic yards of sediments contaminated with heavy metals.

Cleanup activities were initiated in 1990 with the removal of approximately 1,300 cubic yards of material from the unlined trenches. This material was then placed on a liner. Remedial activities continued in 1995 by removing drums and debris, cleaning out and sealing off the building, and welding manhole covers closed. The EPA completed the following remedial activities in 2000:

- consolidating and capping soils from the north and south cornfields, the previously excavated unlined trench material (after stabilization), and sediments from the polishing basin (Figure 1);
- de-watering and capping in-place sediments in the two aeration lagoons;
- on-site treatment and discharge of impoundment water to the nearby Oxbow Lake; and
- removal of sediments from other former wastewater treatment basins and consolidating with sediments in the aeration lagoons before capping.

A Public Health Assessment for the Mid-America Tanning Company site near Sergeant Bluff, Iowa was completed January 12, 2001 (1). This health assessment evaluated the environmental contamination, the pathways of exposures to on-site and off-site contamination, and the public health implications of the site. The health assessment completed in 2001 concluded that the Mid-America Tanning Company posed no public health hazard at the time the assessment was completed. The Iowa Department of Natural Resources (IDNR) has been responsible for oversight of the site since September 2001. IDNR oversight of the site includes an annual

inspection of the sight to observe the integrity of site fencing and capped areas (Appendix A). Groundwater monitoring is not completed during the annual inspections because the groundwater is not contaminated. Because wastes remain at the site, groundwater will be re-evaluated during the required five-year reviews.

Contaminants of Concern

The contaminants of concern at the site were heavy metals (mainly chromium) within soil, impoundment sediment and impoundment water. The primary concerns from these chemicals were the potential threats to site workers from exposure to chromium by falling into the aeration basins and inhaling dust in the north cornfield.

Exposure Pathways

Exposure to contaminants of concern is determined by examining human exposure pathways. An exposure pathway has five parts:

1. a source of contamination,
2. an environmental medium such as air, water, or soil that can hold or move the contamination,
3. a point at which people come in contact with a contaminated medium, such as in drinking water or in surface soil,
4. an exposure route, such as drinking water from a well or eating contaminated soil on homegrown vegetable, and
5. a population who could come in contact with the contaminants.

An exposure pathway is eliminated if at least one on the five parts is missing and will not occur in the future. For a completed pathway, all five parts must exist and exposure to a contaminant must have occurred, is occurring, or will occur.

The public health assessment completed in 2001 concluded that no completed exposure pathways were identified. Site remedial activities had been completed at that time – impoundment water had been treated and all contaminated soils and sediment were contained within on-site capped areas. The 2001 assessment conceded that past exposures to contaminated soil and surface water to on-site workers may have occurred, but as long as the capped areas remained intact the site will not pose a public health risk. Groundwater in the vicinity of the site had been monitored since 1985, and the 2000 Record of Decision for the site concluded that groundwater was not contaminated (metals, including arsenic, barium and chromium, were well below the health-based standards established by the EPA), and no further remedial action was required for the groundwater. Groundwater will continue to be monitored during the five-year reviews by the IDNR.

There are no current completed exposure pathways. All site soil and sediment contamination has been contained within the capped areas. Previous monitoring of the groundwater has concluded that personal consumption of the groundwater in the vicinity of the site would have no impact on

human health. Continued annual site inspections and groundwater monitoring during the 5-year review of the site are planned and will enable IDNR and IDPH to determine if the waste remaining on-site will effect human health in the future.

The cap installed in the north and south cornfields and the fencing installed around the former aeration lagoons and polishing basin have eliminated exposure to the remediated areas of the site. As long as these engineered solutions remain intact, any future exposures to people trespassing in the area, including seasonal hunters, will be eliminated.

Community Health Concerns

The public or community was given opportunity to comment on the proposed de-listing of the Mid-America Tanning Company site. No community comments were received during the public comment period, which ended on August 26, 2004. During completion of the 2001 public health assessment, two public health concerns were received about the site:

What are the long-term health effects from hydrogen sulfide being present at the site?

Hydrogen sulfide was not detected in ambient outdoor air at the site, so long-term effects are not expected. It was noted that only air in enclosed spaces might be hazardous for persons entering them. No enclosed spaces on-site are accessible to the public.

What are the long-term health effects of drinking contaminated water?

No completed exposure pathways for contaminated groundwater exist. Therefore, no short- or long-term health effects from drinking contaminated water are expected.

Conclusions

The current status of the Mid-America Tanning site has been reviewed to evaluate any health consequences of EPA's proposal to de-list the site from the NPL. The IDPH reviewed the site information and exposure pathways and concluded that the site poses no public health hazard now and is not expected to in the future.

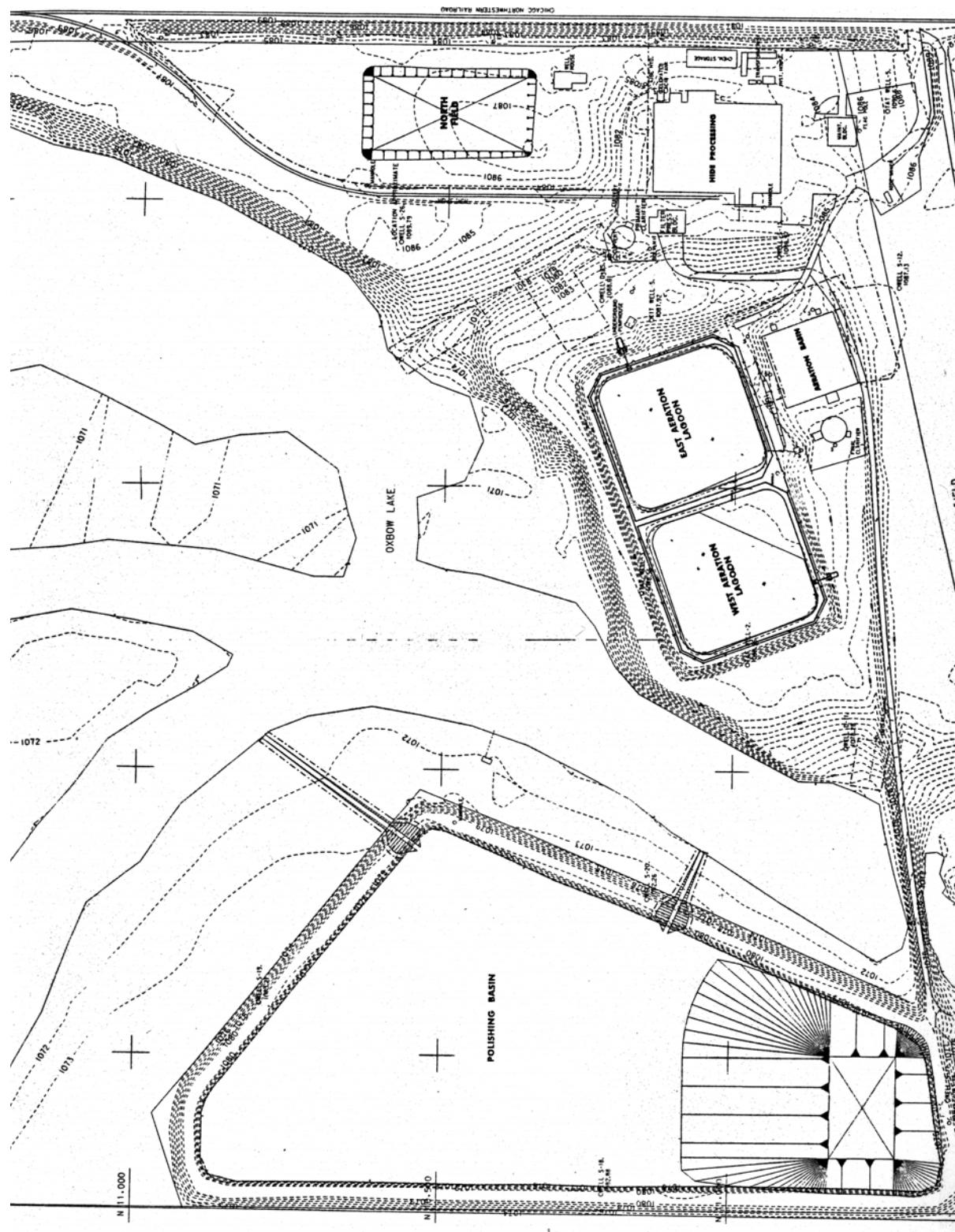
Recommendations

- IDNR should maintain and enforce restricted site access.

Public Health Action Plan

- IDNR will continue annual site inspections and will complete groundwater monitoring during the 5-year review of the site.
- IDPH will review results of annual site inspections and groundwater monitoring at the 5-year review.

Figure 1: Site Map



References

1. Iowa Department of Public Health Under and the Agency for Toxic Substances and Disease Registry. Public Health Assessment Mid-America Tanning Company. Atlanta: US Department of Health and Human Services; January 12, 2001.

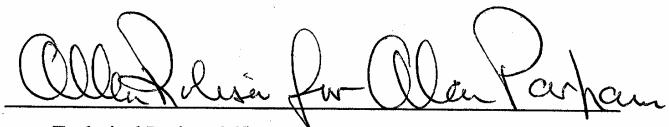
Preparers of the Report

Author

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Hazardous Waste Site Health Assessment Program
Iowa Department of Public Health

CERTIFICATION

The Iowa Department of Public Health, Hazardous Waste Site Health Assessment Program, has prepared this health consultation for the Mid-America Tanning site under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). The document is in accordance with approved methodology and procedures existing when the health consultation was being prepared.



Carol J. Desea for Allen Parham
Technical Project Officer, CAT, SPAB, DHAC, ATSDR

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



J. Kelly for EO
Team Lead, CAT, SPAB, DHAC, ATSDR

Appendix A: Iowa Department of Natural Resources Inspection Report

DEPARTMENT OF NATURAL RESOURCES Contaminated Sites Section

DATE: April 30, 2004

TO: CON 12-15 Mid-America Tanning

FROM: Bob Drustrup

SUBJECT: 4/29/04 Site Visit

Cal Lundberg and I met yesterday with Bob Stewart (EPA Region VII), Larry Eisenhauer (Star Tree Service 712-255-2300) and Collin Gill at the Mid-America Tanning site near Sergeant Bluff, Iowa. Mr. Eisenhauer owns the site and utilizes it for storage of debris from his tree service business. He is in the process of cleaning up the site, including removing of old tanks, equipment, and hides and repairing the buildings. He plans to lease the main building. Much of the nearly 100 acre site is undeveloped wetlands. Mr. Collin Gill (712-266-0435) is partnering with Larry Eisenhauer to develop portions of the site for use as a commercial hunting area.

We toured the site and inspected the three waste disposal units. The northern waste cell was found to be in good condition. It has a good grass cover and no significant erosion was identified. No evidence of deep-rooted vegetation was found on the cover. The lagoon with the floating cover also appeared to be in good condition. The fence was intact. Sufficient water was on top of the cover although several large bubbles in the covers still exist. The floating covers were still fairly free of debris. The southern waste unit (i.e., the former polishing basin) also appeared in good condition. The southern area is being used for storage of branches from the tree service business.

Mr. Eisenhauer and Mr. Gill agreed that the three waste units should not pose any problems with respect to the planned uses of the site. They are willing to take reasonable actions (e.g., removing deep-rooted plants) to maintain the waste disposal cells. We told them that we would be inspecting the site once or twice a year.

Mr. Eisenhauer and Mr. Gill had several questions regarding development of the hunting areas (e.g., diverting water and damming) which we said we would check out with others in the DNR.