



Minnesota Pollution Control Agency

February 22, 1993

Mr. John Bruhn
Engineering Specialist
Minneapolis Community Development Agency
Crown Roller Mill Building
105 Fifth Avenue South, Suite 200
Minneapolis, MN 55401

Dear Mr. Bruhn:

RE: Petroleum Storage Tank Release/Corrective Action Design Approval
with Modifications
Site: Proposed U.S. Federal Court Building
Southeast Quadrant of Third Avenue South and Third Street South,
City of Minneapolis, Hennepin County
Site ID#: LEAK00004055
Property Transfer ID#: TS-PT0085

The Minnesota Pollution Control Agency (MPCA) Tanks and Spills (TS) Property Transfer Technical Assistance (PTTA) staff have reviewed the Remedial Investigation report dated June 12, 1992, and the Remedial Investigation and Corrective Action Design (CAD) report dated October 21, 1992. The proposed CAD is approved with modifications. The assigned ground water cleanup goal for the referenced property (Site) is ten times the Minnesota Department of Health Recommended Allowable Limits (RALs) for volatile organic compounds (VOCs). This assigned ground water cleanup goal could be adjusted to 100 times the RALs once it is determined that either the well located at the Grain Exchange Building will not be impacted, or that this well will not act as a potential conduit for petroleum contamination migration to underlying bedrock aquifers (see Item 3 listed below). Specifically, the following activities and modifications to the proposed CAD should be implemented at the Site and are described below:

1. The full extent of ground water and soil contamination within the perched aquifer has not be fully defined. Additional subsurface activities will be required in order to determine the full lateral and vertical extent of the ground water contamination. Ground water monitoring of existing and future wells should be conducted on an ongoing quarterly basis. The samples should be chemically analyzed for VOCs, total petroleum hydrocarbons as gasoline range organics, and total lead. The VOC chemical analysis should be conducted using a GC/MS analytical procedure for a list of parameters identical to the Minnesota Department of Health Method 465D parameter list. If benzene, ethyl benzene, toluene, and total xylenes (BETX) are the only compounds detected in the VOC analysis, then BETX can be substituted for future VOC sampling.

2. All underground storage tanks at the Site should be excavated and removed from the Site as recommended by staff at STS Consultants Ltd. All future tank excavation or other Site excavation activities which may encounter contaminated soil should be monitored for contamination, and conducted in accordance with MPCA TS guidelines.
3. Additional information should be obtained regarding the status of the well located at the Grain Exchange Building located approximately 1000 feet east of the Site. Specifically, well construction information should be collected in order to determine whether this well could serve as a conduit for migration of potential contaminants to underlying bedrock aquifers. This information will be used to reassess the assigned ground water cleanup goal for the Site.
4. MPCA TS PTTA staff are of the understanding that a Phase I Environmental Site Assessment and an Environmental Impact Statement has been prepared for the Site. If either one or both of these documents exist, please forward them to MPCA TS PTTA staff for review.
5. Continue monthly organic vapor surveys of the Flour Exchange Building. The monthly screenings should be continued until the completion of Site remediation activities. If organic vapors are detected at any time during the surveys, assigned MPCA TS PTTA staff should be contacted immediately.
6. Please submit well construction diagrams for wells MW-13 and MW-14.
7. MPCA TS PTTA staff are of the understanding that a final building design plan for the future Federal Court Building has not yet been selected. We also understand that the final building design can significantly determine that amount of soil excavation that will be required for building construction purposes. Furthermore, it appears that the proposed CAD of ground water pump-out/air sparging in combination with soil venting will be used at least as a temporary remediation effort depending upon the final outcome of the building design process.

The operation of the soil venting process should also include the monitoring of oxygen and carbon dioxide concentrations of the subsurface targeted soil as a measurement of biodegradation activities. Any future closure of the soil venting system should include conducting soil respirometry tests in order to determine if additional contaminant mass removal is achievable. If it appears that additional soil remediation is not feasible, then before final system closure will be approved confirmation soil borings should be conducted in order to document residual soil contamination concentrations.

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From conversation with staff of STS Consultants Ltd., it appears that depending upon the final building design, that excavation to the depth of bedrock may be necessary. If excavation to this depth is determined necessary, then the MPCA TS PTTA staff will request that the clay deposit, located on top of the bedrock surface, not be excavated. The clay deposit acts as a natural barrier to vertical migration of petroleum contamination. Disregard for this concern could have substantial environmental consequences. If deep excavation will be occurring at the Site, dewatering of contaminated ground water may be required. If dewatering is necessary, then all applicable federal, state and local law should be adhered to for the disposal of the contaminated ground water. If deep basements structures for the courthouse will be constructed, the potential for migration of petroleum vapors into these deep structures should be considered in the building design since the contaminated clay deposit will still be remaining at the Site.

The CAD approval given in this letter is applicable for 180 days. Furthermore, a CAD installation report that includes as built specifics of the remediation system, as well as containing all of the information required above should be submitted within 60 days of the startup of the remediation system.

If subsequently obtained information indicates that the approved corrective actions are inappropriate or inadequate, the MPCA may require additional work or modifications in the approved work.

Approval of this corrective action design is based solely on the technical merit of the proposal regarding its ability to remediate the site. It is the responsible party's responsibility, and that of their consultant, to ensure that this remedial system is in compliance with applicable building, electrical, and fire codes and health department rules.

This approval qualifies you under Minn. Stat. § 115C.09, subd. 2(a)(3) (Supp. 1991) to be eligible for Petrofund reimbursement of eligible cleanup costs. Applications for reimbursement must be made directly to the Petrofund. The Petro Board makes the final decision on reimbursement. Reimbursement decisions are based on factors such as the adequacy of cleanup, reasonableness of cost, compliance with notification laws, and cooperativeness with the MPCA.

Since you have requested technical assistance from MPCA TS PTTA staff, you will be billed for these services in accordance with Minn. Stat. § 115C.03, subd. 9 (1990), which states that a person who requests technical assistance from the MPCA staff must reimburse the MPCA for costs incurred on his or her behalf by the MPCA. Reimbursements collected will be deposited in the Minnesota Environmental Fund.

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The assigned project manager for this Site is Kathryn Serier who can be reached at 612/297-8579. If you have questions regarding the content of this letter, or have future technical questions concerning the investigation/remediation of the Site, please call me at 612/297-8597.

Sincerely,



David A. Tetley
Hydrogeologist
Tanks and Spills Section
Hazardous Waste Division

DT:nh

cc: Ms. Robin Hanson, Department of Commerce
Mr. Al Paulsen, STS Consultants Ltd., Minneapolis
Ms. Merry Keefe, City Clerk, Minneapolis
Mr. Thomas Dickinson, Fire Chief, Minneapolis
Mr. Glen Kiecker, Pollution Control Division, Minneapolis