

Neighborhood Update

Madison Kipp Corporation Investigation & Cleanup

Wisconsin Department of Natural Resources (DNR)



DNR Responses to Neighborhood Questions

The DNR's Remediation and Redevelopment Program is working to provide feedback to your questions and comments regarding the investigation and cleanup of contamination at the Madison Kipp Corporation. These questions have been raised to the DNR chiefly at public information meetings in June and October 2011.

Below is a list of consolidated questions to many of the issues raised at public meetings, along with the Department's answers.

Background Information

Contamination at the Madison Kipp Corporation property was discovered during the investigation of the neighboring Madison Brass Works property. In 1994, the DNR sent a letter to Kipp notifying the company of its responsibility under the state's "Spills Law," (state statute s. 292.11, Stats.). It is this statute that provides DNR the authority to require Kipp to fully investigate, remediate and address any public health, safety, welfare and environmental issues associated with historic hazardous substance discharges to the soil and groundwater on – and emanating from – its property.

See page 5 for a list of additional resources of information.

Question#1: Why is Madison Kipp hiring the contractor performing environmental testing in the neighborhood? Isn't this a conflict of interest? Shouldn't DNR be performing these tests?

Answer: State law requires that the party responsible for a discharge of a hazardous substance take the necessary response actions to properly address the situation. This means that most people hire an environmental consultant to develop and implement an approach to investigate and clean-up the contamination. The DNR cannot dictate to the responsible party (RP) whom they can hire, nor does DNR prescribe the clean-up approach. The DNR has professional requirements for such consultants established in ch. NR 712, Wis. Admin. Code.

The DNR's role is to provide oversight on the approach being taken, and to review data gathered from the work performed to ensure the goals of protecting human health and restoring the environment are achieved. If the RP fails to proceed with an investigation or clean up of contamination, DNR has several enforcement options available to it to ensure the RP fulfills its obligation under the Spills Law. However, the DNR does not have the resources to hire the environmental consultants, pay them and seek cost recovery for the more than 4,000 sites that still require some type of response action in the State.

Question#2: Why doesn't DNR simply require Madison Kipp to excavate all the areas of contamination that they have identified on Kipp's property?

Answer: The soil investigations conducted to date have identified three primary areas of soil contamination at the Kipp property: (1) along the northeastern property boundary bordering the bike path, and in 2 places along on the eastern side of the

building, (2) in the location of monitoring well 3 (in the middle of the property along the east side) and (3) in the location of monitoring well 5 (bordering the backyards of several Marquette Street properties) (*maps from Kipp showing well and contaminant locations and additional site details will be forthcoming*).

Between 1998 and 2005, all three areas of soil contamination were remediated in-place by injecting a chemical into the soil to break down the contamination (known as in-situ oxidation). This treatment method reduced soil tetrachloroethene (PCE) contamination levels from the several hundred parts per million (ppm) to less than 5 ppm, and in some instances to below 1 ppm.

The mass of soil contamination remaining on-site has been reduced using this approach; however, DNR is recommending further response actions, including additional treatment of the residually contaminated soil. Further soil excavation is not currently being recommended because we believe excavation would not significantly improve future soil vapor or groundwater problems. This is based on the understanding that only a small amount of the contaminant mass remains. Also, there are significant structural impediments to digging up the remaining portions of contaminated soil. Requiring this amount of excavation would divert resources from more effective remedial methods.

Question #3: Can a soil vapor extraction system (SVE) really reduce the contamination levels within a reasonable time period?

Answer: Yes. Rather than pursuing additional soil excavation on-site at this time, it is believed that the proposed soil vapor extraction system (SVE), if feasible, will not only control the migration of contaminated soil vapors, but will also provide more efficient treatment of the remaining low-level soil contamination.

The feasibility of the SVE system will be determined using an in-field pilot study to determine whether soils are suitable for extracting contaminated vapors in an effective manner. Kipp and DNR will jointly determine whether the system is effective.

If the SVE system fails or is not feasible, then the residential soil vapor issues will be mitigated using sub-slab vapor mitigation systems, which are the same systems installed to control radon in homes. However, it is possible that new testing results will lead to the installation of vapor mitigation systems in more homes, regardless of the success of the SVE system.

Question#4: If the Soil Vapor Extraction System (SVE) is venting vapors to the outside air, isn't that dangerous too?

Answer: Not likely. Dangers of outdoor air pollution will be taken into consideration when designing the protective remedial action for the site. The SVE system will remove soil vapor contamination, which will then be discharged to the atmosphere. The concentrations of contaminated vapors will be monitored by Kipp, and reported to the DNR. If they are found to pose a health risk, they will be treated to levels that don't present health or environmental risks prior to venting to the atmosphere. The emissions data will be reviewed by DNR's Air Management staff to determine whether a permit

and/or treatment for the system is necessary. Those concentrations are not expected to pose a health hazard, given what we know about contaminant levels.

Question#5: Why isn't DNR requiring Madison Kipp to test soils in the front yards or side areas of properties, in addition to the current testing in backyards?

Answer: Based on DNR analysis and experience, there does not appear to be a pathway whereby contamination would migrate from the Kipp Property to the soils in the front and side areas of adjacent properties. It is believed that off-site soils in neighboring yards have become contaminated by either: (1) contamination in surface water/run-off from the Kipp property or (2) through discharges from historic manufacturing operations in the vicinity of Well 5. Given these modes of contaminant movement, DNR believes the most likely areas of off-site contamination are the backyards of the properties adjacent to the Kipp property. Therefore, the off-site soil sampling plan is designed to look for soil contamination in the backyards along Marquette Street (near the property boundary) first, and then expand testing further from the property boundary, as results warrant.

Question#6: Why isn't DNR requiring that soil samples be taken beneath the Madison Kipp building?

Answer: During this phase of work there are no plans to sample the soils beneath the Kipp building. The current evidence does not support the presence of a soil contaminant source beneath the building. Kipp's environmental consultant is currently in the process of collecting vapor data between the Kipp building and nearby homes. This testing may tell us if there is a concern from contamination beneath the on-site structure. This new vapor data may lead us to require sampling beneath the manufacturing building but to require it now would be premature.

Question#7: I'm worried about the effects the contamination may have on our deep groundwater. What is being done?

Answer: The extent of deep groundwater contamination has not been defined. DNR is requiring Kipp to characterize the nature and extent of the deep aquifer contamination. The shallow groundwater contamination (from ground surface to depths of approximately 20-feet below ground surface) is limited to on-site. The distribution and flow direction of deeper contamination (depths of 170 feet or more) is not fully known. To date, there is no indication that there is undissolved PCE in groundwater. Based on what is known now, the contamination at Kipp does not appear to be threatening the water quality in City of Madison well #8.

Question#8: I've heard other states have tougher standards for PCE contamination in soil. Why doesn't DNR adopt those standards?

Answer: To be protective of human health at this site, the state's regulatory agencies and Kipp have already decided to use soil standards more restrictive (protective) than that required by DNR guidance. By applying these more restrictive standards to the top one foot of soil, the soil most likely to be encountered by a landowner, then excavating that contaminated material, we believe we will be adequately protecting human health. The

risk associated with potential re-contamination of surface soils by vapor migration is very low.

The state has an accepted, administrative code-based protocol for establishing soil standards. This protocol relies on specific toxicity data from the Environmental Protection Agency, as well as a detailed set of exposure assumptions and risk calculations. This is the process we consistently use across the state, and provides soil standards that are protective of human health. Other states use slightly different methodologies to prepare their state soil standards. These methodologies are different, but not necessarily better. The procedures used by DNR provide concentrations that are protective of human health. State agencies cannot pick soil standards from different states that use varying methods and assumptions for one specific site; that would lead to inconsistent enforcement across the state.

Question#9: Is Kipp in compliance with other state regulatory requirements?

Answer: Based upon a review of DNR records, Kipp is in compliance with solid and hazardous waste management requirements.

Kipp was inspected in 2008 by air management staff. At that time, it was noted that there have been incidents of the doors and windows being left open. Under the terms of the air permit, the doors and windows at the facility are only to be opened either for material transfer or to control the temperature for the safety of the employees. This matter was addressed with Kipp. Questions about Madison Kipp's compliance with its air permit should be referred to Jennifer Hamill, Air Management Program, 608-273-5608, jennifer.hamill@wisconsin.gov.

Question#10: Can a map of the neighborhood be provided that shows where the contamination is?

Answer: Kipp is developing the maps and other visual information that will better present the site data and aid in the understanding of the areas of known soil, soil vapor, and groundwater contamination to-date. DNR will make the new maps available to the public through its Madison Kipp Investigation and Cleanup webpage (dnr.wi.gov/org/aw/rr/kipp/index.htm) and in the public document repository at the Madison Public Library's Hawthorne Branch. Kipp will update those maps as new, significant data and milestones are met. These new maps will be made available on the web and at the library as DNR receives them.

Question#11: I feel I will never be able to sell my home because of the contamination concerns. Can DNR require Madison Kipp to pay for any lost property value?

Answer: Simply put, DNR does not have the authority to require Madison Kipp to pay for any alleged lost property value.

Property owners have all rights under local, state and federal law to address their concerns at this site. The DNR has authority to require Kipp to follow the law when

cleaning up contamination that resulted from its historic operations. However, if contamination is migrating from Kipp onto neighboring properties, those impacted properties and owners may be eligible for the state's off-site discharge exemption. For more information on this exemption, please see <http://dnr.wi.gov/org/aw/rr/liability/offsite.htm>.

Additional Resources

Where Can I Find More Information?

- Website:** dnr.wi.gov/org/aw/rr/kipp/index.htm
- Public Document Repository:** Hawthorne Public Library Information Desk
For hours and contact information visit
www.madisonpubliclibrary.org/hawthorne, 608-246-4548

Whom Can I Contact to Ask a Question or Make a Comment?

- DNR Soil/Groundwater Cleanup:** Mike Schmoller, WDNR Project Manager
608.275.3303, michael.schmoller@wisconsin.gov
- Health Effects of Contamination:** John Hausbeck, Public Health – Madison & Dane Co.
608.243.0331, jhausbeck@publichealthmdc.com
- General Community Concerns:** Marsha Rummel, Alderperson, City of Madison
608.266.4071, district6@cityofmadison.com