



Public Health

MADISON & DANE COUNTY

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Healthy people. Healthy places.

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Public Health Consideration of the Proposed Housing Development at 134 S Fair Oaks Avenue
Prepared by John Hausbeck, EHS Supervisor
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A mixed-use development with 80 apartments and 2,500 square feet of commercial space is proposed for the property at 134 S. Fair Oaks Avenue. The site is located across from an active industrial facility operated by Madison-Kipp Corporation, on a street that also serves a public utility garage, landscaping company, and electric substation. Questions have been raised regarding the environmental quality of the site and how the industrial and commercial activities of the neighboring properties might affect the living conditions at the new development.

Air Quality

Over the past 25 plus years, there have been many reports about bad odors coming from Madison-Kipp and the impact on outdoor air quality. Public Health Madison and Dane County (PHMDC) has reviewed Madison-Kipp's air emission and process information in consultation with Wisconsin Department of Natural Resources (WDNR) and Department of Health Services (WDHS) and have found Madison-Kipp air pollutant emissions do not create a human health hazard or exceed existing air quality standards.

Since our evaluations, Madison-Kipp has made changes to reduce air emissions and improve air quality. Some of the primary changes include: changing air flow in the building, diluting the die lubricant, and eliminating chlorine from their process. As a result of these changes, reports of unpleasant odors have become less frequent. The primary source of the odors is the vaporization of the lubricant that Madison-Kipp sprays on their machines to allow the metal parts to release from the molds. This lubricant is primarily water with a small amount of silicone wax.

Residents of the proposed development can also expect objectionable odors from the car and truck traffic at the nearby properties, on Gateway Place and on S Fair Oaks Avenue. While gasoline and diesel exhaust fumes can be hazardous, determining the impact of these fumes on human health for the proposed development is difficult.

Suggestions have been made to collect and analyze air samples to assess the air quality at 134 S Fair Oaks Ave. However, collecting a sample in a scientifically valid and useful way is complicated. The first challenge is choosing an appropriate indicator that is present in a high enough concentration to be found and reliably predicts a human health hazard. A common indicator used for this type of testing is particulate matter (PM) because it is commonly found in air samples. However, there are a wide range of sources of this pollutant and amounts of PM tend to follow regional patterns rather than identify a local source of pollution. This is what we found when PHMDC and WDNR collaborated to measure PM in 2005 and 2006 at Lowell Elementary School. The results found that the amounts of PM were consistent with the regional testing station and that Madison-Kipp's impact on local air quality could not be separated from other sources of PM.

Soil and Groundwater Contamination

Initial environmental assessments of the property at 134 S Fair Oaks Ave have found that soil contamination may exist from past activities at the site. Similar findings were made at the

neighboring sites and recommendations have been given to the developers that remedial actions will need to be taken to fully investigate and remediate any soil contamination. It is the Department's expectation that this will be done to ensure that the developed property will not continue to have contaminated soils that are accessible to residents. We also expect that any potential for hazardous soil vapors will be eliminated through site clean up or installation of vapor mitigation systems.

There is also concern that the industrial activity at the Madison-Kipp facilities has created soil, soil vapor, or groundwater contamination that is impacting 134 S Fair Oaks Ave. There has been an extensive investigation of the Madison-Kipp Facility located at 201 Waubesa St (Main Plant). However, this investigation has shown that 134 S Fair Oaks Ave is not impacted by the chemical releases that occurred at the Main Plant. This conclusion is based on the following:

- Tetrachloroethylene (PCE) was used by Madison-Kipp as a degreaser at the Main Plant and was discontinued in the 1970's. It was primarily released to the environment when vapors condensed on exhaust vents and dripped onto the ground outside the facility.
- Groundwater testing has shown that the plume of contamination moved south of the facility towards Lake Monona and did not reach as far east as 134 S Fair Oaks Ave.
- To remove contamination from the groundwater, Madison-Kipp is pumping contaminated groundwater at the 201 Waubesa St property, removing the PCE, and discharging the treated water to Starkweather Creek
- PCE vapors in soil were found in homes adjacent to the main plant.
- All homes adjacent to Madison-Kipp's Main Plant were offered testing for PCE. The highest levels of PCE vapor were found in homes near the point of release on the eastern edge of the facility. PCE vapor levels were low or non-detectable in the homes that were further away from the point of release.
- To limit the movement of PCE vapor in the soil, Madison-Kipp installed and is operating a soil vapor extraction (SVE) system.
- Polychlorinated biphenyl (PCB) was present in the lubricating oils used by Madison-Kipp until they were discontinued in the 1970s. These chemicals were released to the environment when waste oils were spread on the gravel parking lot to control dust. While this activity contaminated the soil on the 201 Waubesa property, it is unlikely that the contamination would move far enough to impact 134 S Fair Oaks Ave.
- Madison-Kipp's facility at 166 S Fair Oaks Ave first started operating in 1986, after the company discontinued use of PCE and PCB. There is no reason to expect that the Fair Oaks Plant has released either of these two chemicals to the environment.

Conclusion

According to environmental investigations, the soil at 134 S Fair Oaks Ave includes fill that may include hazardous materials. Clean up of this site will require WDNR approval and oversight before the site can be developed.

The area surrounding 134 S Fair Oaks Ave is a mixed use community including residential, commercial, and industrial properties. Current industrial and commercial activities in this community are not creating a human health hazard for the current residents and we do not expect this to change with the addition of the proposed housing development. We do expect that prospective residents of this new development will be well informed about the general odor, noise, and traffic issues that they will experience on a regular basis. We would also expect that the developers design and build this development using methods and materials that will help to mitigate odor and noise problems in the building.