

IEA, INC.

NORTHFIELD PUBLIC SCHOOLS



Contact Us:

BROOKLYN PARK OFFICE

9201 W. BROADWAY, #600
BROOKLYN PARK, MN 55445
763-315-7900

MANKATO OFFICE

610 N. RIVERFRONT DRIVE
MANKATO, MN 56001
507-345-8818

ROCHESTER OFFICE

210 WOOD LAKE DRIVE SE
ROCHESTER, MN 55904
507-281-6664

BRAINERD OFFICE

601 HWY NW 5TH ST. SUITE #4
BRAINERD, MN 56401
218-454-0703

MARSHALL OFFICE

1420 EAST COLLEGE DRIVE
MARSHALL, MN 56258
507-476-3599

VIRGINIA OFFICE

5525 EMERALD AVENUE
MOUNTAIN IRON, MN 55768
218-410-9521

www.ieasafety.com

info@ieasafety.com

800-233-9513

**Management Plan
for
Radon**

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IEA Project #201710490

Northfield Public Schools

Management Plan for Radon

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Contact Person: Jim Kulseth
Phone Number: 507-645-3435
Email Address: jkulseth@northfieldschools.org

1.0 Introduction

Radon is a colorless, odorless, radioactive gas that occurs naturally in soil, rocks, underground water supplies, and in the ambient air. According to the U.S. Environmental Protection Agency (EPA) and other scientific organizations, naturally-occurring radon gas has been associated with an increased risk of developing lung cancer. The chances of developing lung cancer from radon exposure are dependent on several factors, including individual susceptibility and, perhaps more importantly, the dose and duration of exposure. The U.S. Environmental Protection Agency (EPA) and other major national and international scientific organizations have concluded that radon is a human carcinogen and a serious environmental health problem. Radon gas typically moves up through the ground into the air in buildings through subsurface wall and/or floor cracks, floor drains, and construction joints and pipes. The water supply may also be a source of radon exposure.

The EPA and the Minnesota Department of Health (MDH) advise schools to test for radon after any renovation to the building or HVAC system, or periodically, such as every 5 years and to reduce levels to below 4 picoCuries per Liter (pCi/L).

2.0 Radon Detection Procedures

Northfield Public Schools conducted air sampling for the presence of radon using long term (>90 day) radon alpha track detectors during the 2016-2017 school year. The district will continue to test its buildings every five years.

The selection of sample locations is based on risk factors that may influence the likelihood of the presence of radon such as basement level spaces or rooms with access to crawl space air plenums. Utilization of the room or space will also be factored into the sample location selection.

Northfield Public Schools will place detectors in frequently occupied areas throughout the district at schools and district buildings and locations occupied by district staff (as determined by the Director of Building and Grounds) for the purpose of sampling for radon in accordance with the MDH's *Best Practices for Radon Measurement in Minnesota Schools and Commercial Buildings* (March 2013). The detectors will be placed from Fall season (October/November) to Spring season (March/April), for a total long-term sampling period of about 150-180 days. Northfield Public Schools will follow the MDH recommendations for quality assurance measurements by including duplicate detectors and control detectors (blanks). The detectors will be analyzed by Radonova, Inc. The sampling and analysis methodologies are provided in the reports, see Appendix A. See Appendix B within the radon report for testing locations.

3.0 Program Communication

Principals are informed if sampling shows elevated radon levels in their buildings. Radon documentation may be reviewed during normal business hours at District Office. Northfield Public Schools will consider other means of communication enhancement (such as posting results on our web page or school newsletter). Communication procedures will be approved by the superintendent.

Per Minnesota Statutes, section 123B.571, school districts are now required to report radon test results at a school board meeting and report results to the MDH. Northfield Public Schools will present results to the school board, and will submit the necessary MDH reporting. The MDH reporting form is provided in Appendix D within the radon report.

4.0 References

United States Environmental Protection Agency
www.epa.gov/iaq/radon/index/html

Minnesota Department of Health
www.health.state.mn.us

For Geographical Maps of indoor and outdoor Radon levels in MN, Iowa and the US visit:
<http://employees.csbsju.edu/dsteck/mnradon/rnmaps.html>