



# ROOF ACCESS PROGRAM Oak Grove School District

# ROOF ACCESS PROGRAM

## Oak Grove School District

### Contents

	<u>Page</u>
Glossary .....	2
I. Policy .....	3
II. Scope .....	3
III. Introduction .....	3
IV. M&O Roof Categories .....	4
Restricted Access Roofs .....	4
Limited Access Roofs .....	5
Unrestricted Access Roofs .....	6
V. Signs .....	6
VI. Responsible Parties .....	7
VII. Regulations/Orders/Standards .....	8
VII. Related Resources .....	8

## OAK GROVE SCHOOL DISTRICT ROOF ACCESS CONTROL PROGRAM

### Glossary

**As Low As Reasonably Achievable (ALARA)** is the goal to minimize employee radiation exposure.

A **High Efficiency Particulate Air (HEPA)** filter is one that is capable of filtering 0.3-micron particles or greater with at least 99.97 percent efficiency.

A **Heating, Ventilating, and Air Conditioning (HVAC) system** is the system that supplies fresh air to a M&O. It may also provide heating and/or cooling.

**Long-term** work is nonroutine roof work that is greater than three days in duration. Examples include reroofing an entire M&O, or replacing large portions of ventilation systems.

**Permissible Exposure Limit (PEL)** and **Threshold Limit Value (TLV)** are employee airborne exposure limits established for particular chemicals by the Federal Occupational Safety and Health Administration (**Fed/OSHA**) and the American Conference of Governmental Industrial Hygienists (**ACGIH**), respectively. DOE requires that employee exposures must not exceed PELs or TLVs. **Time Weighted Average (TWA)**, **Short-Term Exposure Limit (STEL)**, and **Ceiling (C)** standards are summarized as follows:

<u>Organizations and Standards</u>	<u>Work Exposure Duration</u>
Fed/OSHA PEL-TWA and ACGIH TLV-TWA	8-hour shift and 40-hour week
Fed/OSHA PEL-STEL and ACGIH TLV-STEL	15 minutes
Fed/OSHA PEL-C and ACGIH TLV-C	Any point in time

**Roof access** means going onto a roof by any means.

**Short-term** work is routine work that is 8 hours or less per day for not more than 3 consecutive days. Examples include small roof repairs, changing a blower motor, and replacing HVAC filters and environmental stack monitors.

**Threshold Limit Value (TLV)** is defined under **Permissible Exposure Limit**, above.

# ROOF ACCESS PROGRAM

## I. Policy

Oak Grove School District will take a conservative approach to roof access in order to minimize potential exposure to chemicals, magnetic fields, and radiological hazards for personnel who are working on roofs. This approach involves restricting or limiting access to M&O roofs when potentially hazardous materials originating from operations inside of a M&O may reach the roof, even though it unlikely these hazards will exceed occupational health limits.

## II. Scope

This policy applies to all personnel access on roofs maintained by Oak Grove School District. The primary focus of this policy is to address concerns regarding employee exposure to chemicals, magnetic fields, and radiological hazards when working on rooftops. Other safety issues involved when working on roofs, and equipment on roofs, (e.g., fall protection, electrical safety, lockout tagout) are covered separately in other Oak Grove School District safety plans.

## III. Introduction

Employees are often required to gain brief access to the roofs of Oak Grove School District M&Os for such tasks as routine maintenance, equipment inspection, minor roof repairs, environmental sample collection, and changing HVAC filters. Less frequently, work may require employees or contractors to be on roofs for extended periods of time, such as when reroofing or installing ventilation systems. Although it is unlikely that individuals working on roofs will be exposed to chemical substances in concentrations that exceed the PEL or TLV it is good practice to minimize employee chemical exposures. Radioactive materials are also a concern, but the consistent use of HEPA or other specialized filters for hoods used for volatile radioactive materials mitigates release to the roof. In keeping with the policy to minimize potential employee exposure, certain M&Os have been placed into **restricted** or **limited** roof access categories.

## IV. M&O Roof Categories

Oak Grove School District M&Os have been placed into one of three roof access categories, depending on the type of work performed in the M&O

- A. **Restricted Access** M&O roofs require the approval of the M&O Manager before any work is performed.
- B. **Limited Access** M&O roofs can be accessed by notified personnel for short-term work, long term work requires approval by the M&O Manager.
- C. **Unrestricted Access** M&O roofs are open to work access with no special restrictions.

The types of M&O classifications are listed below. Note that all trailers are designated as type C, **open access**, unless they are located in a restricted area.

### Restricted Access Roofs

Buildings specified as having **restricted access** roofs were placed in that category because they are in a restricted access area, such as a hazardous waste yard, accelerator, etc., or because there is a research-related reason or hazard, such as a high magnetic field. The M&O Manager, who is the point of contact between building occupants and Facilities, also has the option to restrict access to roofs for other reasons, such as damage to sensitive equipment, disruption to building occupants, experiments, etc.

**Restricted access** roofs require that the M&O Manager (or designee) be contacted for approval before any work can be performed on the roof. Access doors must be kept locked and posted with the sign shown below.

<p><b>Caution</b></p> <p>This roof is designated as "Restricted Access"</p> <p>M&amp;O Manager approval is required before any roof work can be performed</p> <p>Contact the M&amp;O Manager at ext. _____</p>
--

### Limited Access Roofs

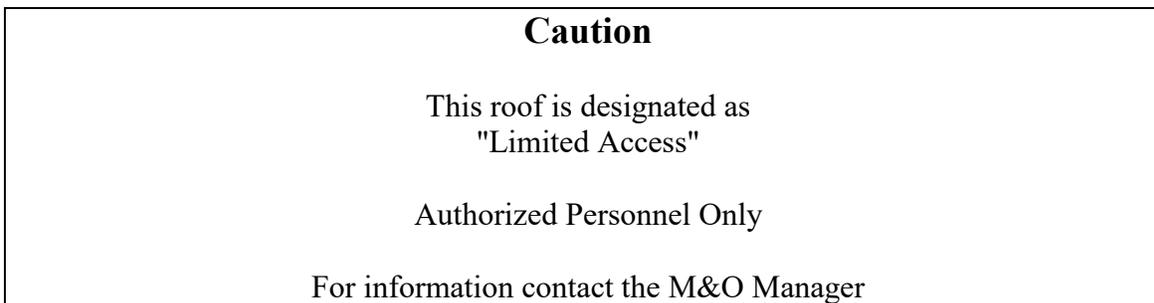
Buildings specified as having **limited access** roofs are placed in that category because there is some potential for diluted chemical emissions from the exhaust stacks to be present. Typically these roofs have large numbers of exhaust stacks, or the exhaust

stacks are relatively low in height. In some cases there are enclosures that may restrict outside air flow in part of the roof area.

Roof work on **limited access** M&Os has been placed into two classifications:

1. **Short-term** (i.e.,  $\leq$  8-hours per day for not more than 3 consecutive days)
2. **Long-term** (i.e.,  $>3$  consecutive days).

Short-term work by employees who have been notified of the potential hazards associated with their task is permitted without restriction. Verbal approval by the M&O Manager is required for long-term work. If requested, an Industrial Hygienist (or designee) will review the type and amounts of chemicals used in each laboratory hood in the M&O. Experiments that have the potential to cause problems to roof workers (e.g., fuming acids, releasing odiferous chemicals such as hydrogen sulfide) may be restricted. Access doors must be kept locked and posted with the sign shown below.



## Unrestricted Access Roofs

Buildings (including all portables) with **unrestricted access** roofs are office/school-type buildings with virtually no potential for chemicals or other hazardous agents inside of the building to affect roof work. The M&O manager should still be notified for long-term roof work and for work that may disrupt building occupant activities (e.g., shutdown of the HVAC system, roofing repair near an air intake, interruption of utilities, etc.). Access doors to these roofs will not be posted with signs.

## V. Signs

Listed below are examples of signs that may be posted on laboratory hoods when they are out of service or their use has been limited because of roof work.

A. Appropriate sign for posting on a laboratory fume hood when air is no longer exhausting through it (for example, when Facilities maintenance is replacing belts or the blower motor).

<b>DO NOT USE</b>	
<b>FACILITIES DEPARTMENT NOTICE</b>	
<b>OUT OF SERVICE FUME HOOD and EXHAUST SYSTEM</b>	
<b>BLDG</b> _____	
<b>DATE</b> _____	
<b>FROM APPROXIMATELY</b> _____	<b>TO</b> _____
<b>REASON</b> _____	
<b>FOR INFORMATION CONTACT</b> _____ <b>AT EXT</b> _____	

B. Examples of signs that are appropriate for posting on hoods that exhaust adjacent to work areas where long-term roof work is being performed. The type of sign used will depend if the M&O Manager chooses to make a blanket work restriction or to designate a specific roof work schedule time.

<b>Caution</b>	<b>Warning</b>
<p style="text-align: center;">Do not perform any experiment in this hood before contacting the</p> <p style="text-align: center;">Bldg. Mgr. _____ at ext _____</p> <p style="text-align: center;">Painters are working on the roof near the hood exhaust.</p> <p>Date _____</p>	<p style="text-align: center;">Do not release hazardous or odoriferous materials into this hood during posted work times.</p> <p style="text-align: center;"><b>Workers may be on the roof.</b></p> <p style="text-align: center;">Roof work schedules are posted at entrance doors, the elevators, and staircases.</p> <p style="text-align: center;">For information contact the M&amp;O Manager at ext. _____</p>

## VI. Responsible Parties

### Personnel With Access to Roofs

- Review the roof work plan and the implementation of this policy with your supervisor prior to starting work.
- Determine the type of M&O roof access category
- Contact the M&O Manager for:
  - A. **restricted access**
  - B. long term work on **limited access**
  - C. work that will disrupt M&O occupants in **unrestricted access**
- Ensure that the appropriate sign(s) are posted, and that other safety precautions, such as lockout/tagout, etc., are performed if they are required.
- Stop work immediately and contact your supervisor if the previously discussed scope of work or conditions change.
- Remove signs after the work has been completed, and inform the M&O manager of the completion of the work if they were notified.

### M&O Manager

- Know the roof access classification of the M&O and the requirements for gaining access to the roof.
- Appoint a designee for times when the M&O Manager is not available.

- Ensure that researchers and other building occupants are notified of roof work (e.g., laboratory hood shutdown) that may directly affect them.
- Serve as the point of contact between Facilities and the building occupants, as needed.

### **Safety Committee**

- Upon request, assist in the evaluation of chemical, radiological, or other hazards that may affect roof workers.
- Make final decisions on roof categories based on input from M&O operations personnel.

### **Facilities Supervisors/Project Managers/Superintendents**

- Review the roof work plan and the implementation of this policy with employee(s) prior to starting work. Request assistance from Safety Committee if there are concerns regarding chemical, radiological, or other hazards.
- Notify employees who perform roof work of the potential hazards associated with their task, as well as the measures implemented to mitigate these hazards.
- Notify the M&O Manager of work that may disrupt building occupant work activities, such as shutdown of the HVAC system, roofing repair near an air intake, or interruption of utilities.
- Notify the M&O Manager and Safety Committee of long-term roof work on **restricted access** and **limited access** roofs as far in advance as feasible.
- Coordinate roof access procedures for outside contractors.

## **VII. Regulations/Orders/Standards**

29CFR 1926.500 - Fall Protection

## **VIII. Related Resources**

- OGSD Slip, Trips and Falls Safety Plan
- OGSD Lockout/Tagout Safety Plan

*The Roof Access Control Program was approved at the August 2015 Safety Committee Meeting. The plan was reviewed and updated on August 2016 and August 2017.*