

**OREGON OCCUPATIONAL SAFETY & HEALTH DIVISION  
DEPARTMENT OF CONSUMER & BUSINESS SERVICES**

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**PROGRAM DIRECTIVE**

Program Directive: A-252  
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Revised: June 28, 2017

**Subject:** Indoor Air Quality (IAQ): Oregon OSHA Procedures for Assessing and Responding to Complaints and Employer Requests for Assistance

Note: Policy content adapted from WISHA Regional Directive 10.10, Indoor Air Quality, Issued 1/21/2000, with permission.

**Affected Standards/**

**Directives:** Oregon OSHA Technical Manual, Section II., Chapter 2  
Oregon OSHA Field Inspection Reference Manual  
Program Directive A-219, Complaint Policies and Procedures

**Purpose:** This directive establishes a policy for handling complaints and employer requests for assistance regarding problems with IAQ in any building, and provides guidelines to be used when evaluating IAQ concerns. It applies whenever Oregon OSHA staff evaluates workplace hazards relating to IAQ in office buildings. Environmental sampling of biological agents will not be conducted by Oregon OSHA without the review of management and coordination with the Occupational Health Laboratory. This document establishes such a process, provides examples of Serious and Other-Than-Serious (OTS) hazards, and provides guidelines on appropriate responses to workplace IAQ complaints. The reader is referred to OAR 437-001-0015 for definitions applicable to violation classification and serious physical harm.

**Background:** The number of inquiries to state and federal agencies requesting information and assistance on health and comfort concerns related to IAQ has increased dramatically over the last few years. For example, the National Institute for Occupational Safety & Health (NIOSH) has conducted more than 600 IAQ investigations in office (non-industrial) buildings under the Health Hazard Evaluation Program since 1991. However, given Oregon OSHA's desire to focus its' limited resources on the most hazardous industries and occupations, it is critically important to evaluate whether or not there are reasonable grounds to believe that a

Serious hazard may exist.

Good indoor air quality is an important component of a healthy and comfortable indoor environment. The definition of good indoor air quality includes:

- Introduction and distribution of adequate ventilation air,
- Control of airborne contaminants, and
- Maintenance of acceptable temperature and relative humidity.

Although control of airborne contaminants is the focus of this directive, ventilation, temperature, and humidity are also important. Their importance in productivity, comfort, and a sense of health and well-being should not be underestimated. It is also important to remember that factors such as noise, lighting, ergonomic stressors (work station and task design), and job-related psychological stressors can – individually and in combination – contribute to IAQ-related complaints. The greatest challenge posed by IAQ investigations is that the reported symptoms and health complaints are generally diverse and usually not suggestive of any particular medical diagnosis or readily associated with a causative agent. A typical spectrum of symptoms includes headaches, unusual fatigue, itching or burning eyes, skin irritation, nasal congestion, dry or irritated throats, and other respiratory irritations. Typically, the workplace environment is implicated because workers report that their symptoms lessen or cease once they leave the workplace. In such cases, however, it is often difficult to prove causation and/or substantiate a violation.

However, in some instances specific illnesses can be associated with identifiable exposures in the indoor environment and employers may be subject to an Oregon OSHA citation. Examples of such illnesses include Legionnaires disease, histoplasmosis, carbon monoxide poisoning, and certain allergic reactions associated with exposure to molds.

**Action:**

**A. IAQ Complaint Evaluation Procedures**

*In general, how should IAQ concerns be evaluated before assignments are made?*

Historically, few IAQ investigations have resulted in Oregon OSHA violations. Therefore, it is critical that the evaluating health enforcement manager (HEM), or consultation field manager carefully considers each complaint or other request prior to committing staff resources to determine: (i) the potential for identifying specific causative agents, (ii) the likelihood of an exposure pathway existing between the contaminated materials or sources and the building occupants, and (iii) the specificity and severity of the specific symptoms or illnesses reported.

## B. Oregon OSHA Compliance Protocols

*How should enforcement staff address IAQ complaints?*

1. HEMs must carefully evaluate all IAQ complaints. They must exercise professional judgment in deciding whether there are reasonable grounds to believe a serious violation can be documented.
2. An onsite complaint inspection or investigation, as specified in Oregon OSHA PD A-219, "Complaint Policies and Procedures," will normally be conducted when a Serious or potentially Serious hazard is suspected and a violation of an Oregon OSHA standard may exist. IAQ evaluation procedures found in this directive are supplemented in the Oregon OSHA Technical Manual, Section II, Chapter (2), but it is imperative that the investigating industrial hygienist (IH) use the most current and best data to assist them in assessing the IAQ complaint.

Examples of IAQ problems that normally indicate a Serious hazard may exist include the following:

- Complaints of headaches, nausea, lethargy, or dizziness (especially if onset was sudden or severe) and carbon monoxide poisoning from combustion sources is suspected.
  - Complaints of fever/chills and fatigue, or cough and shortness of breath (especially severe, or widespread complaints), other symptoms, or physician-diagnosed disease (e.g., Legionnaires' Disease, histoplasmosis) consistent with exposure to airborne microorganisms (see Appendix A).
  - Wheezing or other indications, where chemicals are present, that might prompt or aggravate asthma in a worker.
  - Complaints of significant mold growth within a building (see Appendix A).
3. Informational letters to employers without expectation of response may be sent for other types of complaint allegations in accordance with complaint policies and procedures.

Examples of IAQ problems that normally will be addressed by a letter with recommendations and appropriate resource materials (see examples in list) include the following:

- Non-specific health symptoms (e.g., headaches, eye irritation, fatigue) shared by a group of employees who associate their problems with the building but no source of biological or chemical contamination has been identified or alleged. Recommend that a qualified person inspect the heating, ventilation, and air conditioning (HVAC) system for proper air supply and distribution throughout the area where the complaints were received. Recommend an outdoor air supply rate of 20 cubic feet per minute per person (cfm/person) in all occupied areas or as otherwise specified in ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers).
  - Respiratory or eye irritation reported by employees after remodeling activities or installation of new carpets/furnishings. Recommend the employer increase outdoor air supply to the area and perform remodeling work after regular work hours.
  - Allergic reactions from biological contamination within the building are suspected by employees, but no significant water damage or mold contamination was reported or can be identified as a possible agent. Recommend that a qualified person search for moisture or water damage and promptly remove or clean these materials/areas using appropriate protective measures. Regular maintenance procedures should be also be recommended to identify and eliminate situations where moisture could promote biological growth (EPA guidelines exist for large buildings - see Reference Materials list).
4. Investigations will not be initiated over issues of comfort, and such issues normally will not result in a letter to the employer.

### **C. Oregon OSHA Consultation Procedures**

*How should consultation staff address requests for assistance involving IAQ?*

Consultation staff should rely on the guidance provided in Section B above and on overall guidance regarding consultation priorities when determining whether to schedule an onsite visit. Such a visit should be scheduled when the consultation field manager and consultant determines a Serious hazard may exist, but would not typically be scheduled when the

consultation field manager and consultant determines a Serious hazard is not likely to be documented.

If no visit is scheduled, the consultant is expected to provide the employer with appropriate resource material to assist the employer in resolving an issue (see guidance in section B.3 above).

#### **D. Violation Policy**

*How should Oregon OSHA (enforcement) staff document violations related to IAQ?*

1. The Oregon OSHA Field Inspection Reference Manual (FIRM) must be followed whenever citations are issued.
2. Most IAQ hazards are not covered by specific standards. Those that could apply, depending on the hazard, include hazard communication, safety and health committee, and air contaminants.
3. ASHRAE, the Illuminating Engineering Society of North America (IES), and other such organizations publish advisory standards and codes which are voluntary consensus standards. These standards are usually based on the combined consideration of "comfort" and avoidance of adverse health effects.

**Effective Date:** This directive will remain in effect until canceled or superceded.

**History:** Issued 9-18-2002 Revised 6-28-2017

## Reference Materials

Building Air Quality: A Guide for Building Owners and Facility Managers\* – EPA, 1998. Indoor Air Quality Information Clearinghouse, P.O. Box 37133, Washington, D.C. 20013-7133; 1-800-438-4318; <http://www.epa.gov/iaq>.

An Office Building Occupant's Guide to Indoor Air Quality\* – EPA 1997. Indoor Air Quality Information Clearinghouse, P.O. Box 37133, Washington, D.C. 20013-7133; 1-800-438-4318; <http://www.epa.gov/iaq>.

Building Air Quality Action Plan\* – EPA/NIOSH – 1998. Indoor Air Quality Information Clearinghouse, P.O. Box 37133, Washington, D.C. 20013-7133; 1-800-438-4318; <http://www.epa.gov/iaq>.

IAQ Tools for Schools Action Kit\* – EPA et. al 1995. Indoor Air Quality Information Clearinghouse, P.O. Box 37133, Washington, D.C. 20013-7133; 1-800-438-4318; <http://www.epa.gov/iaq>.

School Indoor Air Quality Best Management Practices Manual – Washington Department of Health-1995; <http://www.doh.wa.gov/publicat/publications.htm>.

Bioaerosols: Assessment and Control – ACGIH 1999. ACGIH, 13300 Kemper Meadow Drive, Cincinnati, OH 45240-2020; <http://www.acgih.org>.

Ventilation for Acceptable Indoor Air Quality – American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62 – 1999. ASHRAE, 1791 Tullie Circle NE, Atlanta, GA 30329.

Molds Resources Page\* – EPA Indoor Air Quality Information Clearinghouse, P.O. Box 37133, Washington, D.C. 20013-7133; 1-800-438-4318; <http://www.epa.gov/iaq/molds>.

\* Available online.

## APPENDIX A

### EVALUATING MICROBIOLOGICAL CONTAMINATION

Further investigation of a potentially Serious hazard may be appropriate if all three of the following criteria are met:

- A Source: The building is significantly water damaged, contaminated with molds, or reservoirs of other microorganisms (e.g., Histoplasma, Legionella) exist;
- An Exposure Pathway: An exposure pathway is likely; and
- Illness and Symptoms: A physician has diagnosed a building-related illness or building occupants are suffering from symptoms consistent with exposure to the potential source.

#### Evaluating the Source

A Serious hazard can only be determined to exist if the workplace exhibits one of the potential sources of microbiological contamination listed in the attached Table A-1. Consideration should be made of the possible extent of contamination. Small areas of contamination (i.e., traces of mold on a wall or ceiling tile) may not necessarily warrant classification as a Serious hazard (although it may be a superficial indicator of hidden problems), as opposed to a contaminated air plenum or an extensively water-damaged wall.

Normally, mold contamination is easily recognizable due to moldy odors and their unique visual characteristics. Other specialized sampling may be required if Legionella or any other pathogenic (disease-causing) microorganism is suspected.

#### Evaluating the Potential for an Exposure Pathway

Bioaerosol sampling has been used by many investigators to demonstrate the existence of exposure pathways. However, the numerous technical limitations and difficulties associated with this method make the sampling results extremely difficult to interpret. In general, bioaerosol sampling should not be performed, unless there are special circumstances that warrant this approach.

The IH should qualitatively evaluate factors such as the magnitude and proximity of the contaminated materials and potential exposure pathways. See Table A-1 (in Appendix A) for potential sources and pathways for consideration.

#### Evaluating Illnesses and Symptoms

Examples of illnesses and symptoms consistent with exposure to molds and other microorganisms are indicated below. The IH must recognize that many of the listed symptoms are relatively common complaints and are not necessarily reflective of a workplace exposure or serious illness.

Physician-diagnosed illnesses associated with microbial contamination include:

- Allergic rhinitis or sinusitis
- New-onset asthma
- Hypersensitivity pneumonitis
- Pneumonia
- Fever/flu-like illness
- Recurrent airborne infections

Symptoms associated with microbial contamination include:

- Dry, irritated or sore throat
- Wheezing
- Difficulty breathing or shortness of breath
- Chronic postnasal drip
- Chronic cough
- Continual throat clearing
- Frontal headaches or facial pain that increases with bending over or straining
- Eustachian tube dysfunction (ear pain)
- Altered hearing, smell or taste
- Recurrent fevers or chills in addition to general malaise and muscle aches

### **Examples of Microbiological IAQ Evaluation Determinations**

The following examples may assist evaluating compliance or consultation industrial hygienists determine the disposition of typical employee complaints or employer requests for assistance.

*Example 1 – Triggers an inspection, investigation by letter or phone/fax, or consultation visit*

The Complaint: A complainant reports that a physician has diagnosed new-onset asthma in a worker whose workspace has evidence of chronic water damage, including several stained ceiling tiles and water-stained walls.

Employee complaint: The complaint results in a compliance inspection or investigation.

Employer request for assistance: The request results in a consultation visit.

*Example 2 – Triggers an inspection, investigation by letter or phone/fax, or consultation visit*

The Complaint: A complainant reports that several workers are no longer able to tolerate working in a building. As soon as they come to work, they start to suffer from a variety of allergic-type symptoms (sneezing, coughing, and headaches). The roof has been leaking for years and there is evidence of water damage in their workspace – carpets are periodically soaked and ceiling tiles are stained.

Employee complaint: The complaint results in a compliance inspection if there is also an apparent or alleged failure on the part of the employer to take appropriate steps to address the issue. An investigation by letter, phone, or fax is a viable option if the HEM determines that the employer will conduct a fair and thorough investigation and establish a timely



remediation plan that protects employees until the hazards have been eliminated or mitigated.

Employer request for assistance: The request results in a consultation visit.

*Example 3 – Write a letter and possibly recommend a qualified independent IH contractor*

The Complaint: A complainant reports that workers are suffering from a variety of allergic-type symptoms, but there is no evidence of water intrusion, water damage, or microbial growth in the building.

Employee complaint: Compliance generates a letter or phone/fax (with appropriate information and resource material) to the employer.

Employer request for assistance: Consultation sends appropriate information and resource material to the employer. No letter is required.

*Example 4 – No inspection or consultation visit, but possibly recommend use of a qualified independent IH consultant*

The Complaint: A complainant reports that workers are not feeling well in their building. There are reports of headaches, metallic taste in the mouth, and muscle aches, but there are no objective symptoms that can be verified and no evidence of water intrusion, water damage, or microbial growth in the building.

Employee complaint: Compliance generates a letter or phone/fax (with appropriate information and resource material) to the employer.

Employer request for assistance: Consultation sends appropriate information and resource material to the employer. No letter is required.

**TABLE A-1**

**Potential Sources of Biological Agents or Bioaerosol Entry Routes into Buildings and Factors Related to Microbial Growth or Bioaerosol Dissemination**

**HVAC System**

<b>Source/Route</b>	<b>Related Factors</b>
Outdoor air intakes (OAIs)	Bioaerosol sources near OAIs (e.g., plant debris, feathers and bird droppings, insect or rodent infestations, sanitary air vents, cooling towers or evaporative condensers, standing water); below-grade OAIs
Filters	Dampness; microbial growth on filters; gaps between filters and housings; low efficiency filters
Heat Exchangers	Dirty heating or cooling coils; excessive water in condensate pans – inadequate drainage from collection pans; blow-through of water droplets onto surfaces downstream of coils; dampness and microbial growth on acoustical lining; poorly maintained air washers or humidifiers; stagnant water in air washers or humidifiers
Supply Air Plenums and Ductwork	Excessive surface deposits; dampness and surface microbial growth; inaccessible humidifiers
Supply Air Diffusers	Surface deposits, rust, or microbial growth on louvers; soiling of adjacent ceilings and walls; poor air mixing

## Occupied Space

Source/Route	Related Factors
Water Damage	Evidence or history of plumbing or roof leaks, water intrusion or spills, high indoor humidity (70%), attempts to clean or disinfect carpets and other materials, musty or moldy odors
Chronic Condensation	Inadequate insulation or intrusion of humid outdoor air that results in chronic condensation on windows, perimeter walls, or other cool surfaces
Window Air Conditioners and Evaporative Air Coolers	Location inconvenient for maintenance; dirty grills; standing water in condensate pans or sumps; dampness and surface microbial growth near units
Fan Coil and Induction Units	Dirty heating or cooling coils or filters; excessive water in condensate pans – inadequate drainage from collection pans; dampness and surface microbial growth near units
Carpet	Poorly maintained or water-damaged carpet that serve as sources for dirt accumulation or microbial growth
Fabric Office Partitions, Wall Coverings, Drapes; Upholstered Furniture	Poorly maintained or water-damaged fabric-covered and upholstered items that serve as sources for dirt accumulation or microbial growth
Portable (Console) Humidifiers	Poorly maintained units with microbial growth in the water reservoirs; spray or mist units
Return Air Plenums	Excessive surface deposits, dampness, and surface microbial growth

## APPENDIX B

### INDOOR AIR QUALITY (IAQ) QUESTIONS & ANSWERS

#### INTRODUCTION

Every year, Oregon OSHA receives numerous inquiries and complaints from employees and employers on the subject of indoor air quality (IAQ) in the workplace. Office buildings and public schools in particular are common sites of indoor air quality problems. Because Oregon OSHA has no specific regulations for indoor air quality, we are limited in how we can respond to employer requests for assistance or employee complaints. In most cases, Oregon OSHA will not conduct an onsite investigation unless there is sufficient evidence of exposure to a known chemical, gross mold contamination or other evidence of exposure to disease-causing microorganisms, and there is information that the employer has not taken effective steps to investigate and mitigate the IAQ issues. However, there is a wealth of information and guidance available on this subject from EPA and other non-governmental organizations. A number of consulting industrial hygiene and engineering firms in the state of Oregon also specialize in solving IAQ problems.

#### QUESTIONS AND ANSWERS

##### 1. What is "indoor air quality"?

Indoor air quality refers to the quality of air inside buildings where people work or live. Air quality can be a problem when there is inadequate fresh air ventilation, when chemicals are used in the building, when gas furnaces malfunction, when outdoor pollutants enter fresh air intakes, or when mold or other microorganisms grow inside the building or in the heating and ventilation system. The term "indoor air quality" is usually used in reference to non-industrial workplaces, such as office buildings, governmental institutions, hospitals, libraries, and schools.

##### 2. Does Oregon OSHA have regulations covering indoor air quality?

Oregon OSHA does not have specific regulations that address indoor air quality or prohibit smoking in offices. Other Oregon OSHA regulations protect employees from exposures to specific chemicals that can cause ill effects. These regulations specify concentrations of certain chemicals that must not be exceeded and are called "Permissible Exposure Limits" (PELs). However, these permissible exposure limits are usually much higher than levels found in most office buildings or other non-industrial workplaces.

##### 3. How does Oregon OSHA handle employee complaints of indoor air quality problems?

Because Oregon OSHA has no general indoor air quality regulation, most complaints of this nature are not investigated by an onsite inspection. Instead, a letter or phone/fax is sent to the employer advising them of complaints and asking them to investigate the situation. Exceptions that would likely initiate an inspection include complaints of carbon monoxide exposure, exposure resulting from high levels of chemicals during their use and the processes involved, or

evidence of exposure to life-threatening infectious agents like Legionella (Legionnaire's disease) or Histoplasma (histoplasmosis). An investigation may also be warranted if there is extensive water damage to a building, gross mold contamination and reports of adverse health effects associated with mold exposure.

#### **4. What help will Oregon OSHA provide to employers in solving their IAQ problems?**

Oregon OSHA classifies requests for consultative IAQ assistance into two categories. The first category includes situations where a recognized hazard is reasonably likely, such as gasoline vapors or symptoms of carbon monoxide exposure or reports of employees experiencing severe symptoms. The second category is those in which the reported issues or symptoms are vague. These requests are typically reports of dizziness, headaches, scratchy throat, etc., of a person or persons; odor complaints; occupancy and work-space issues. Oregon OSHA emphasizes the use of extensive internet resources, especially those that emphasize a self-help approach. Employers can use such resources to do their own investigations and take corrective actions such as cleaning, leak identification, etc.

#### **5. Will Oregon OSHA conduct air monitoring for an indoor air quality problem when requested?**

Oregon OSHA will not normally conduct air monitoring for chemicals in indoor air quality problem situations. Past experience in air monitoring has shown that levels of chemicals in the air rarely exceed current Oregon OSHA permissible exposure limits for routine activities. Exceptions include situations where the types of chemicals in use or of concern, along with the work activities being done, suggest a more aggressive evaluation protocol.

Normally, air monitoring for molds or other microorganisms will not be performed because of technical difficulties associated with this type of sampling and the lack of standards for levels of mold or mold spores in the air. Instead, Oregon OSHA recommends that ongoing sources of water (roof leaks, leaking pipes) be fixed, mold-contaminated material be removed or cleaned by qualified personnel, or the pathway between the mold source and building occupants be identified and removed or blocked.

#### **6. Will Oregon OSHA inspect my heating, ventilation, and air conditioning system (HVAC) to see if it is operating properly?**

Oregon OSHA will not normally inspect HVAC systems since we do not have regulations regarding these ventilation systems. Instead, you may decide to utilize private HVAC consultants. Simple steps which the employer can pursue include checking fan motors, fan controls, and system ductwork are intact and working properly; and making sure that air discharge points are not close to air intakes, causing recirculation of contaminated air. HVAC contractors may be necessary to evaluate more complex systems, or to assure supply and exhaust systems are properly balanced.

#### **7. Where can I get additional information on IAQ problems and how to solve them?**

There is a great deal of information and guidance available to assist you in solving IAQ problems. The following internet sites provide general IAQ information:

EPA Indoor Air Quality home page at <http://www.epa.gov/iaq/> This website has several publications and guidelines that can be downloaded or ordered.

National Institute for Occupational Safety & Health (NIOSH) by calling 1-800-35-NIOSH or [www.cdc.gov/niosh/iaqpg.html](http://www.cdc.gov/niosh/iaqpg.html)

American Lung Association at [www.lungusa.org](http://www.lungusa.org).

Bioaerosols: Assessment and Control. A comprehensive 1999 publication on biologically derived airborne contaminants from the American Conference of Governmental Industrial Hygienists. To order a copy, call (513)742-6163 or e-mail: comm@acgih.org.

American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE) at [www.ashrae.org](http://www.ashrae.org) This organization publishes technical documents and standards on ventilation and indoor air including the ASHRAE Standard 62-1999, Ventilation for Acceptable Indoor Air Quality.

The following provide information and guidelines on IAQ in public schools:

University of Minnesota web site on IAQ in public schools at [www.dehs.umn.edu/schooliaq.html](http://www.dehs.umn.edu/schooliaq.html)

EPA Tools for Schools, available on the Environmental Protection Agency IAQ web site listed above.

For hospitals the following document is available:

A Guide to Managing Indoor Air Quality in Healthcare Organizations. Published by the Joint Commission on Accreditation of Healthcare Organizations ( JCHAO) in 1998. Cost is \$45. To order call (630) 792-5800 or Fax 1-800-676-3299 (Order code # EC-505LH)

## **8. What should be done if there is mold contamination at my workplace?**

Visible mold contamination should be addressed promptly by either removing contaminated porous material such as rugs, ceiling tiles or sheetrock or thoroughly cleaning contaminated hard surfaces such as ductwork, cooling coils in HVAC systems or drip pans. All investigation and cleanup operations should be conducted in such a manner that investigators, cleanup personnel and building occupants are not exposed to the contaminated material. This may require using gloves, coveralls and respirators during removal and conducting removal work when the building is not occupied and the HVAC system is shut down.

Since mold cannot grow without moisture, all sources of moisture or water leaks must be stopped or repaired, to prevent contamination from recurring.

## **9. Does Oregon OSHA have any requirements for temperature control in offices?**

Oregon OSHA does not have regulations on temperature in offices. We may conduct an

investigation in workplaces where heat stress (heat exhaustion or heat stroke) has occurred or is a possibility. This typically will occur only when temperatures are sustained above 90° F and employees are physically active on their job. In these cases, heat stress measurements can be taken with special instruments. If specified levels are exceeded, Oregon OSHA may require that the employer take remedial measures. Similarly, employee exposure to cold temperatures below freezing may also require remedial measures.

**10. Should I be concerned about strong odors from hot tar roofing on my building or a nearby building?**

While hot tar operations can be smelly and even cause adverse symptoms in some people, the permissible limits are rarely exceeded in offices or workplaces inside the building. For this reason, Oregon OSHA cannot usually direct a tarring crew to cease operations. However, because fresh air intakes are often on the roof or downwind of the tarring operation, the odors and fumes can be drawn into the building and affect sensitive individuals. The best solution is to have the tarring operation done during non-business hours. Another less effective measure would be to temporarily close down or block the affected fresh air intakes.

**11. What should be done during remodeling or construction in my building?**

Remodeling or construction conducted in a building while occupied by office workers can sometimes expose them to significant amounts of dust, noise and chemicals. The operation should be isolated as much as possible from office workers with temporary barriers. On multi-employer workplaces, the contractor must make safety data sheets (SDSs) available to other employers when their employees may be exposed to the relevant hazardous chemicals. Ventilation rates can be increased during these activities to minimize their impact on indoor air quality. In some cases exhaust ventilation will be needed in the construction area to remove dust or chemical vapors. Alternatively, remodeling and construction can be done after hours or on weekends. Occasionally these operations can expose office workers to levels of contaminants above their permissible exposure limits. In these cases, if Oregon OSHA is asked to investigate either by an employee complaint or by a request from management, we may require that measures be implemented to reduce employee exposures.

**12. The new carpet in my office has a strong odor. Is it a health hazard?**

While some new carpets can smell strongly after installation, they do not emit gases or vapors that exceed permissible exposure limits. Some sensitive people however, may be temporarily affected by the odors. Generally, the odors diminish within a few days or weeks. If time allows, the carpet can be installed several days prior to occupancy and maximum fresh air ventilation be provided to reduce odors when employees occupy the building or room. Low-odor carpets can also be purchased from some manufacturers. For more information on carpets and carpet adhesives related to indoor air quality, see the Carpet and Rug Institute web page at [www.carpet-rug.com](http://www.carpet-rug.com)

**13. What can I do about airborne contaminants coming into my building or office from other businesses in my building or adjacent to my building?**

The first step is to express your concerns to the manager of the business generating the

contaminants or the building manager or owner. If the company or building owner fails to take action, you can call the local air pollution authority and ask for their investigation. If an employee files a complaint with Oregon OSHA, an inspector may inspect both your business and the adjacent business and may require either or both to control their employee exposures to tobacco smoke\* or chemicals that exceed permissible exposure limits. In some instances, a building owner directly in control of activities in the building may be required to control exposures to building occupants. If an employer asks for assistance from an Oregon OSHA consultant, the consultant may also recommend a course of action as needed to control employee exposures. However, if permissible exposure limits are not exceeded, Oregon OSHA cannot compel an employer, adjacent business or building owner or manager to stop or change their activities.

\* Oregon's Smokefree Workplace Law (ORS 433.835-433.990), requires with few exceptions, that "an employer shall provide a place of employment that is free of tobacco smoke for all employee." This law is regulated by the Oregon Health Division.