

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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**NOTICE OF PUBLIC MEETING/PUBLIC HEARING/BUSINESS MEETING
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
AND NOTICE OF PROPOSED CHANGES TO TITLE 8
OF THE CALIFORNIA CODE OF REGULATIONS**

Pursuant to Government Code Section 11346.4 and the provisions of Labor Code Sections 142.1, 142.2, 142.3, 142.4, and 144.6, the Occupational Safety and Health Standards Board of the State of California has set the time and place for a Public Meeting, Public Hearing, and Business Meeting:

PUBLIC MEETING: On **August 21, 2008**, at 10:00 a.m.
in the Auditorium of the State Resources Building,
1416 9th Street, Sacramento, California.

At the Public Meeting, the Board will make time available to receive comments or proposals from interested persons on any item concerning occupational safety and health.

PUBLIC HEARING: On **August 21, 2008**, following the Public Meeting,
in the Auditorium of the State Resources Building,
1416 9th Street, Sacramento, California.

At the Public Hearing, the Board will consider the public testimony on the proposed changes to occupational safety and health standards in Title 8 of the California Code of Regulations.

BUSINESS MEETING: On **August 21, 2008**, following the Public Hearing,
in the Auditorium of the State Resources Building,
1416 9th Street, Sacramento, California.

At the Business Meeting, the Board will conduct its monthly business.

DISABILITY ACCOMMODATION NOTICE: Disability accommodation is available upon request. Any person with a disability requiring an accommodation, auxiliary aid or service, or a modification of policies or procedures to ensure effective communication and access to the public hearings/meetings of the Occupational Safety and Health Standards Board should contact the Disability Accommodation Coordinator at (916) 274-5721 or the state-wide Disability Accommodation Coordinator at 1-866-326-1616 (toll free). The state-wide Coordinator can also be reached through the California Relay Service, by dialing 711 or 1-800-735-2929 (TTY) or 1-800-855-3000 (TTY-Spanish).

Accommodations can include modifications of policies or procedures or provision of auxiliary aids or services. Accommodations include, but are not limited to, an Assistive Listening System (ALS), a Computer-Aided Transcription System or Communication Access Realtime Translation (CART), a sign-language interpreter, documents in Braille, large print or on computer disk, and audio cassette recording. Accommodation requests should be made as soon as possible. Requests for an ALS or CART should be made no later than five (5) days before the hearing.

**OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD**

JOHN D. MACLEOD, Chairman

NOTICE OF PROPOSED CHANGES TO TITLE 8
OF THE CALIFORNIA CODE OF REGULATIONS
BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Notice is hereby given pursuant to Government Code Section 11346.4 and Labor Code Sections 142.1, 142.4 and 144.5, that the Occupational Safety and Health Standards Board pursuant to the authority granted by Labor Code Section 142.3, and to implement Labor Code Section 142.3, will consider the following proposed revisions to Title 8, General Industry Safety Orders of the California Code of Regulations, as indicated below, at its Public Hearing on **August 21, 2008**.

1. TITLE 8: **GENERAL INDUSTRY SAFETY ORDERS**
Division 1, Chapter 4, Subchapter 7, Article 109
Section 5199
Aerosol Transmissible Diseases

2. TITLE 8: **GENERAL INDUSTRY SAFETY ORDERS**
Division 1, Chapter 4, Subchapter 7, Article 109
New Section 5199.1
Aerosol Transmissible Diseases—Zoonotics

Descriptions of the proposed changes are as follows:

1. **TITLE 8:** **GENERAL INDUSTRY SAFETY ORDERS**
Division 1, Chapter 4, Subchapter 7, Article 109
Section 5199
Aerosol Transmissible Diseases

INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT OVERVIEW

Pursuant to California Labor Code Section 142.3, the Occupational Safety and Health Standards Board (Board) may adopt, amend, or repeal occupational safety and health standards or orders. Section 142.3 permits the Board to prescribe, where appropriate, suitable protective equipment and control or technological procedures to be used in connection with occupational hazards and provide for monitoring or measuring employee exposure for their protection.

The Division of Occupational Safety and Health (Division) is proposing that the Board add a new Section 5199 to control aerosol transmissible disease hazards. Employees in health care and other high-risk environments face new and emerging infectious disease threats, such as Severe Acute Respiratory Syndrome (SARS) and potentially pandemic influenza strains, as well as long-standing or re-emerging threats, such as tuberculosis (TB) and pertussis. The effect of this proposed section would be to require employers to implement common infection control measures in order to protect employees from those threats and to enable the employees to continue to provide health care and other critical services without unreasonably jeopardizing their health. The proposed section is based on established guidelines and practices. The purpose of this standard is to identify to the regulated public those infection control measures which are necessary to protect employees, and to provide the Division with the authority to enforce these protective measures in accordance with its legislative mandate.

The proposed standard would apply in health care and in other environments, such as correctional facilities, homeless shelters, and drug treatment programs, where employees are at increased risk of exposure to persons who are capable of transmitting infection. It would also apply to laboratories which handle materials that may be a source of aerosol transmissible pathogens (ATPs), and to pathologists, coroners' offices, medical examiners and mortuaries that perform aerosol-generating procedures on cadavers which are suspected or confirmed to be infected with ATPs. The effect of this new section would be to require employers to establish control measures to protect employees from exposures to aerosol transmissible pathogens that can cause significant disease. All employers covered by this standard would be required to develop and implement procedures to minimize employee exposures to ATPs and to provide appropriate training. Much of this training is currently required as part of the Injury and Illness Prevention Program (IIPP), required by Section 3203. The specific effects of the proposed standard and the related federal equivalency of specific sections are discussed in detail below.

Health care workers and workers in related occupations or who are exposed in other high-risk environments are at increased risk of contracting tuberculosis, SARS, and other infectious diseases which are spread through respiratory secretions which are exhaled or expelled through coughing, sneezing, etc. Infection control professionals empirically categorize diseases which are transmitted by aerosols (ATDs) into two categories, those requiring droplet precautions, such as pertussis, diphtheria, mumps and meningococcal disease, and those requiring airborne infection isolation, such as tuberculosis, SARS, smallpox, and measles. Because the predominant route of those diseases

requiring droplet precautions is considered to be near field exposure (within one to two meters of the source) to droplets greater than 5 microns (um) in diameter, dedicated ventilation systems and the use of respiratory protection is not included in recommendations for those diseases by public health authorities such as the United States Centers for Disease Control and Prevention (CDC). Public health guidelines recommend that patients in health care facilities, who are infectious with diseases that are primarily spread through the inhalation of smaller pathogen-containing droplet nuclei, small particles or dusts, be provided with airborne infection isolation (AII) facilities. AII facilities include isolation rooms or other areas that have special ventilation systems, and require the use of respirators by employees who enter into the area where those patients are kept.

Proposed Section 5199 would incorporate these generally accepted guidelines, and establish requirements to protect employees, that are consistent with these practices. A list of currently recognized pathogens requiring droplet precautions or airborne infection isolation is incorporated into Appendix A. Based in part on the recent experience with SARS, proposed Section 5199 also would require airborne infection isolation be provided for novel or unknown pathogens that cause serious human disease, and for which there is insufficient evidence to establish that there is not a significant airborne route of exposure.

The infection control profession has also recognized that persons who are infectious with diseases requiring either droplet precautions or airborne infection isolation may manifest similar signs and symptoms and that there is a particular risk of transmission during the period when a disease may not be identified, and treatment has not yet begun. The CDC has published guidelines for source control measures, such as providing tissues and hand hygiene materials to the patient so that they may cover their cough, or providing a surgical mask to a coughing patient. These procedures are designed to reduce the concentration of infectious aerosols by capturing some of the expelled material. Proposed Section 5199 would require all employers covered by this section who have employees potentially exposed to persons who are capable of transmitting infection, to adopt source control measures, except where it is not feasible in field operations.

Currently, there is no California standard or federal Occupational Safety and Health Administration (OSHA) standard which addresses exposures to aerosol transmissible diseases in a comprehensive manner. Employers in health care and related industries should address infectious disease hazards through their IIPP. Employers who provide respirators for protection against *M. Tuberculosis* and other infectious pathogens are required to comply with Section 5144. Other general provisions of Title 8 which can be applied to the control of employee exposures to aerosol transmissible diseases include Article 9, Sanitation, and Sections 5142 and 5143 that apply to ventilation systems. Emergency responses to releases of biological agents are regulated by Section 5192.

Federal Equivalence

There is no federal standard that is equivalent to the proposed standard or to Section 3203. The proposed standard refers to several existing standards which are equivalent to federal standards, including Section 5192 which is equivalent to 29 CFR 1910.120, Section 14300 et seq which is equivalent to 29 CFR 1904, Section 3204 which is equivalent to 29 CFR 1910.1020, and Section 5193 equivalent to 29 CFR 1030.

This proposal is generally consistent with the federal OSHA Respiratory Protection standard, 29 CFR 1910.134, with two exceptions. The first is that this proposal would allow the use of an alternative questionnaire for medical evaluation for respirator use. Occupational health physicians who participated in the advisory process have stated this questionnaire would provide equivalent safety to the currently mandated questionnaire in Section 5144, and in 29 CFR 1910.134.

The second exception is in regards to annual fit-testing for respirators provided for non-high hazard procedures. The proposed standard would create an exception which will expire on January 1, 2014, permitting employers to extend the fit-test interval to two years during this period. The intent of this exception is to ensure adequate protection for employees while permitting employers to undertake other control measures to reduce ATD risks to employees. The National Institute for Occupational Safety and Health (NIOSH) is currently conducting a study to evaluate the effectiveness of annual fit-testing in respiratory protection programs, and this study is expected to be completed before the exception expires.

The federal OSHA standard requires annual fit-testing; however, federal OSHA standards do not specify the circumstances under which respirators must be used to protect against exposures to infectious aerosols. Federal OSHA standards do not specify the procedures for which respirators must be used or the diseases for which this protection is required, other than tuberculosis. The proposal provides equivalent protection because it clearly requires respirator use in exposure scenarios in which employees are at increased risk, including for diseases such as pandemic flu, and because it specifies the use of a more protective respirator for high hazard procedures. The respirator section of the proposal is at least as effective as the federal standard in protecting employees against infectious aerosols.

In addition, the proposal includes other requirements that will reduce the likelihood of an employee becoming infected. Ventilation, source control measures, and other engineering and work practice controls will reduce the concentration of pathogens in the environment. Vaccination will reduce the susceptibility of the employee to certain infections. Training will improve the employee's ability to use control measures effectively. Early identification and prompt referral of suspected cases will permit the early institution of isolation precautions to prevent disease transmission. Personal protective equipment will also serve to reduce exposures via non-aerosol routes, such as contact with mucous membranes. Therefore, taken as a whole, the protection provided by this proposal is at least as effective as the federal standard.

Specific Effects of the Proposed Standard

Proposed Section 5199 would divide employers into three categories, based on the types of exposures and work settings: 1) referring employers, 2) laboratory operations, and 3) employers who provide services to patients with airborne infectious diseases or employers who perform aerosolizing procedures on cadavers which may be infected with airborne infectious pathogens.

The proposed standard would apply to occupational exposure in hospitals and other health care settings, in facilities that are designated to receive persons arriving from the scene of an uncontrolled release of biological agents, in long-term health care facilities and hospices, in homeless shelters, in correctional facilities, in facilities that offer treatment for drug abuse, in facilities that perform aerosol generating procedures on cadavers potentially infected with ATPs, and in laboratories. Subsection (a)(1)(G) would provide authority to the Chief of the Division of Occupational Safety and Health to issue an order to take special action to a facility, service or operation that the Division has found must comply with this standard in order to protect employees from ATD risks.

The effect of subsection (a)(2) is to exempt from this standard outpatient dental offices and clinics that screen patients for aerosol transmissible diseases and do not perform aerosol-generating procedures on those patients. It also would exempt outpatient medical specialty offices that do not diagnose, treat or perform aerosol generating procedures on persons with an ATD, and which screen patients for those diseases and refer them to an appropriate medical provider for further evaluation.

The proposed standard restates existing California law that employers must provide during the employee's working hours, at a reasonable time and place for the employee, and at no cost to the employee all safeguards required by this standard, including personal protective equipment, respirators, training and medical surveillance. The effect of this provision is to inform employers and employees of existing legal requirements.

Subsection (b) of the proposed standard includes a number of definitions. The effect of these definitions is to create a set of standard terms with a common understanding as they apply to this standard.

Referring Employers

“Referring employers” are employers who would be within the scope of this standard who do not provide services beyond first aid and initial treatment to patients requiring airborne infection isolation (airborne infectious disease (AirID) cases or suspected cases) and who do not perform aerosolizing procedures on cadavers potentially infected with ATPs. These employers would be required to comply only with subsections (a), (c), and (j) and with specifically referenced portions of other subsections. Most of the employers within the scope of this standard, including most medical offices and clinics, homeless shelters, drug treatment programs, hospices, long-term care facilities, and jails, would be referring employers. This type of employer screens persons entering the work setting and refers people who are suspected or confirmed as being infectious with a disease requiring airborne infection isolation to a hospital or other appropriate facility in a timely manner. Because these employers do not treat, house or otherwise manage patients requiring airborne infection isolation, they are not required to implement certain engineering controls and other protective measures.

The effect of subsection (c) is to require referring employers to establish infection control procedures, which may be incorporated into the employer's IIPP, or other infection control or communicable disease control plan. The procedures would be required to be reviewed annually. These procedures would include:

- designation of a person who is responsible for implementing the procedures;
- written source control procedures;
- procedures for timely referral of cases or suspected cases of airborne infectious diseases, or in the case of employers in non-medical settings, procedures for the timely referral to a health care provider for persons exhibiting readily observable signs of aerosol transmissible diseases;
- procedures to communicate with employees and other employers regarding the infectious status of patients;
- feasible risk reduction measures to protect employees during the time that a person requiring airborne infection isolation is in contact with employees, which may include placing the person in a separate room or area, providing separate ventilation or filtration, and use of respiratory protection by employees entering the room or area if the person is not compliant with source control measures (such as failing to use a provided surgical mask or other means to cover their cough);
- medical surveillance for employees, including surveillance for latent tuberculosis infection (LTBI) for all exposed employees, the provision of vaccines for health care workers as recommended by the California Department of Public Health (CDPH) (these vaccines are listed in Appendix E), and provisions for exposure incidents;
- provision of the seasonal influenza vaccine;
- employee training; and

- recordkeeping.

Laboratory Operations

Laboratory operations which do not involve direct contact with persons who are cases or suspected cases of aerosol transmissible diseases would be required to comply only with subsections (a), (f), (i) and (j) and with specifically referenced portions of other subsections. Laboratories in which employees have direct contact with cases or suspected cases would be required to comply with subsections (d) through (j) including subsection (f).

Subsection (f) is proposed to address research, production, and clinical laboratories. Laboratory operations may aerosolize pathogens that are not normally transmitted between people via aerosols. An example of this type of transmission is laboratory-acquired brucellosis, which is spread via aerosols of laboratory cultures. Laboratories may also work with cultures or other materials in which infectious agents are concentrated. Therefore, the proposed standard contains a definition of aerosol transmissible pathogens – laboratory (ATP-L), which includes pathogens identified in Appendix D of the proposal, as well as pathogens identified for biosafety level 3 and above controls by the CDC, pathogens identified by the facility biosafety officer, and novel and unknown pathogens. This subsection does not apply to laboratory operations that only work with non-pathogenic organisms.

The effect of proposed subsection (f)(2) would be to require the employer to implement feasible engineering and work practice controls to minimize exposure, and to provide necessary personal protective and respiratory protective equipment. Control measures would be required to be consistent with the recommendations of the CDC, as published in Biosafety in Microbiological and Biomedical Laboratories.

The effect of proposed subsection (f)(3) would be to require the employer to establish, implement and maintain a biosafety plan, which could be incorporated into existing Exposure Control Plans to meet the requirements of subsection (f)(3)(A-N). This subsection lists the required elements of the program. Employers who provide respiratory protection would also be required to comply with subsection (g), Respiratory Protection. Laboratory employers would be required to comply with the medical surveillance requirements in subsection (h), to the extent that they are applicable to laboratory operations. For example, a laboratory that processes tuberculosis samples or cultures would be required to provide surveillance for tuberculosis, whereas a research laboratory working with measles would be required to provide that vaccination. Laboratory employers would also be required to provide training in accordance with subsection (i), and recordkeeping in accordance with subsection (j).

Employers Providing Services to AirID Patients or Where Employees Perform Aerosol-Generating Procedures on Cadavers Potentially Infected with ATPs

Proposed subsections (a), (d), (e), (g), (h), (i) and (j) would establish specific requirements for employers that provide services to persons who are AirID cases or suspected cases. This includes work settings such as hospitals, emergency medical service providers, and tuberculosis clinics, as well as facilities such as jails or long-term care facilities that house and treat, rather than refer, AirID cases or suspected cases. Other employers in this category include pathologists and others performing autopsies and mortuaries to the extent that they perform aerosol-generating procedures on cadavers that may be infected with aerosol transmissible pathogens. Employers with employees who perform laboratory operations that involve contact with AirID cases or suspected cases would also be required to comply with subsection (f), Laboratories. Requirements for laboratory operations are discussed above.

The effect of proposed subsection (d)(1) is to require employers to establish, implement and maintain an effective infectious disease Exposure Control Plan (Plan). Proposed subsection (d)(2) contains the specific requirements of the Plan, which include the designation of person(s) responsible for the Plan implementation, a list of job classifications in which employees have occupational exposure, a list of high hazard procedures, a list of tasks or assignments requiring personal or respiratory protection, the methods of implementation of the control measures required by the standard, surge procedures, source control measures, procedures for temporary isolation and transfer or referral for AirID cases, medical surveillance including the provision of vaccinations, procedures for exposure incidents, procedures for communication with employees and other employers regarding the infectious status of a patient and regarding exposure incidents, procedures to ensure an adequate supply of necessary equipment, procedures for providing employee training, recordkeeping, and procedures for involving employees in the review of the Plan. The effect of proposed subsections (d)(3) and (d)(4) is to provide that the Plan must be reviewed at least annually and made available to employees, their representatives, the Chief and NIOSH.

The effect of proposed subsection (e)(1) is to require employers to use feasible engineering and work practice controls to minimize employee exposures to ATPs and to provide personal protective equipment, which for airborne infectious pathogens would include respirators, where necessary. This subsection would require employers to implement, as applicable, the specific engineering controls and work practices recommended by the CDC, as described in the Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007, for diseases requiring droplet precautions. For diseases requiring airborne infection isolation, the measures described in Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005, CDC would be required. Fixed establishments, and field operations to the extent that it is feasible, would be required to implement written source control procedures. Employers would also be required to develop control measures for employees who are exposed to infectious cases while transporting them in vehicles. It would also require employers to implement source control procedures, which in fixed health care facilities and correctional facilities must incorporate the recommendations in Respiratory Hygiene/Cough Etiquette in Health Care Settings, CDC, 2004. In other settings, these requirements must be incorporated to the extent feasible. This section would also require employers to develop and implement engineering and work practice controls to protect employees who operate, use, or maintain vehicles used to transport ATD cases or suspected cases.

The effect of proposed subsection (e)(2) is to require that employers develop and implement written decontamination procedures for work areas, vehicles and equipment. Proposed subsection (e)(3) would require that the employer inform contractors who provide temporary or contract employees about infectious disease hazards. The effect of proposed subsection (e)(4) is to require that engineering controls be used in workplaces that admit or provide medical services to AirID cases or suspected cases, except where home health or home-based hospice services are provided.

Proposed subsection (e)(5)(A) establishes requirements for protection when dealing with AirID cases and suspected cases, including source control measures and measures to minimize contact with employees who are not wearing respirators. The effect of subsection (e)(5)(B) is to establish requirements for transferring AirID cases and suspected cases to AII rooms or areas. Exceptions are provided for situations in which a transfer would be detrimental to the patient's condition, or where these facilities are not feasible for persons infected with novel or unknown pathogens. The effect of subsection (e)(5)(C) is to require that high hazard procedures be conducted in AII rooms or areas, unless no such area is available and it is necessary to perform the procedure.

The effect of subsection (e)(5)(D) is to establish specific requirements for airborne infection isolation rooms (AIIR) or areas. These requirements are consistent with Title 24, Part 4, Chapter 4, Section 417 et seq. which contain the design and construction requirements for AIIR in hospitals. AIIR which are constructed in accordance with those provisions would be considered to be in compliance with this subsection. The section contains specific requirements for AII ventilation systems and for the inspection, testing, maintenance, and verification of control measures in isolation rooms or areas. These controls are referenced to the CDC recommendations in the Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005. This subsection also includes requirements for the ventilation of AII rooms or areas after the case or suspected case has vacated the room. Annual inspection would be required for engineering controls, and the existing requirement contained in Section 5143 that employers must comply with in the construction, installation, inspection, operation, testing and maintenance of AII ventilation systems would remain, by specific reference, in this subsection.

The effect of proposed subsection (g) is to establish requirements for the use of respiratory protection for aerosol transmissible diseases. The effect of proposed subsection (g)(1) is to require that respirators be approved by NIOSH for the purpose for which they are used. This restates the existing requirement in Section 5144 and is equivalent to the federal standard 29 CFR 1910.134(d)(1)(ii). The effect of proposed subsection (g)(2) is to require employers to establish and implement a written respiratory protection program that complies with Section 5144, except as provided in proposed subsections (g)(5) and (g)(6).

The effect of proposed subsection (g)(3) is to establish the selection criteria for respiratory protection for use against infectious aerosols. It would require that those respirators be at least as effective as an N95 filtering facepiece respirator. If the CDC or CDPH recommends a more protective respirator, the employer must provide a respirator with that level of protection. This subsection would also require that the employer provide a Powered Air Purifying Respirator (PAPR) with high efficiency particulate air (HEPA) filter(s) to employees who perform high hazard procedures on AirID cases or suspected cases, unless the use would interfere with the successful performance of the task. The employer would be required to document any determination that a PAPR could not be used for a procedure in the exposure control plan, and this documentation would be required to be reviewed at least annually by the employer and employees. Proposed subsection (g)(3) also would require that respirators used for other hazards, such as chemical hazards or releases of biological spores, be selected in accordance with Sections 5144 or 5192 as applicable. This is consistent with existing standards, and provides equivalency to federal OSHA standards 29 CFR 1910.134 and 29 CFR 1910.120.

The effect of proposed subsection (g)(4) is to specify the situations in which respirator use would be required to protect employees against airborne infectious pathogens. (Respirators are not required to be used when there is an ATD case that requires droplet precautions.) The circumstances enumerated in subsection (g)(4) requiring respirator use are when an employee:

- enters an AII room or area in use for airborne infection isolation;
- is present during the performance of procedures or services for an AirID case or suspected case;
- transports an AirID case or suspected case either in an enclosed vehicle or within a facility, when that person is not masked;
- repairs, replaces or maintains air systems or equipment that may contain or generate ATPs;
- is working in an area occupied by an AirID case or suspected case and during decontamination procedures after the person has left;
- is working in a residence where an AirID case or suspected case is known to be present;

- is present during the performance of aerosol generating procedures on cadavers that are suspected of, or confirmed as, being infected with airborne infectious diseases; or
- is performing a task for which the biosafety plan or exposure control plan requires the use of respirators.

An exception to this subsection would provide that employees who operate vehicles are not permitted or required to use respirators when the use would interfere in the safe operation of the vehicle. There is also an exception for personnel who transport an AirID case or suspected case where there is a solid partition that has been tested to ensure that there is no detectable airflow from the passenger compartment to the area where the employees are located.

The effect of proposed subsection (g)(5) is to require the medical evaluation of each employee for respirator use prior to the employee being fit-tested for, or required to use, a respirator, in accordance with Section 5144(e). Section 5144(e) requires that respirator medical evaluations include the content of a questionnaire included in Appendix C to Section 5144. This subsection would permit the use of an alternate medical questionnaire (Appendix B to this standard) where respirators are provided solely for the purpose of protection against infectious aerosols, as described in proposed subsections (g)(3)(A) and (g)(3)(B). As stated above, physicians participating in the advisory process have stated that the alternative questionnaire provides equivalent protection to the questionnaire content currently required by Section 5144 and 29 CFR 1910.134.

The effect of proposed subsection (g)(6) is to establish requirements for initial and annual fit-testing of respirators. This subsection is equivalent to requirements in Section 5144(f), and 29 CFR 1910.134(f). Employers must provide initial and annual fit-testing, and must provide additional fit-testing when an employee notifies the employer that the fit is unacceptable, or when the employer is notified by the employee, employer, supervisor, physician or other licensed health care professional (PLHCP) or respiratory protection program administrator that a change in the employee's physical condition could effect respirator fit. There is an exception to annual fit-testing for respirator use by employees who do not perform high hazard procedures. This exception, which will expire on January 1, 2014, would permit those employees to be fit-tested every two years. This exception is discussed above under the section "federal equivalence." The effect of subsection (g)(7) is to require that employees who use respirators be trained initially and annually, as required by Section 5144, which is equivalent to 29 CFR 1910.134(h).

The effect of proposed subsection (h) is to require that the employer provide medical surveillance for ATDs and laboratory acquired infections in accordance with recommendations from the CDC or CDPH for the type of work setting. The surveillance includes vaccinations, examinations, evaluations, determinations, and medical management and follow-up. If the medical surveillance is being provided by a health care professional who is also the employer, the employee could refuse to consent to surveillance by their employer, in which case the employer would be required to provide the services of an independent health care professional. Other general requirements pertaining to this surveillance are listed in subsection (h)(2) and include requirements that the surveillance be provided by a licensed physician or other health care professional or under their supervision, that it be provided in accordance with CDC or CDPH recommendations, and that it be provided in a confidential manner.

The effect of proposed subsection (h)(3) is to require that all employees with occupational exposure under this section be provided with surveillance for LTBI. Research and production laboratories where it is not reasonable to suspect that *M. tuberculosis* are present would be exempted from this requirement. Surveillance must be in accordance with CDC and CDPH recommendations. Tests for LTBI would be required to be conducted initially, and thereafter at least annually, or more frequently.

frequently. The proposal would require that employees who experience a TB conversion be referred to a PLHCP for evaluation and would require that the PLHCP report suspect or confirmed infectious TB to the local health officer. The PLHCP would also be required to make a recommendation regarding precautionary removal if the person has suspected or diagnosed infectious tuberculosis (see discussion below). Subsection (h)(3) would also require that TB conversions be recorded on the Log 300, which is consistent with Section 14300. It would also require employers to investigate the circumstances of conversions, unless the conversion is determined not to be occupational.

The effect of proposed subsection (h)(4) is to require that laboratory tests be performed by an accredited laboratory.

The effect of proposed subsection (h)(5) is to require that employers provide all vaccine doses recommended by the CDPH, as listed in Appendix E, to all susceptible health care workers and at no cost to the employee. The vaccinations listed in Appendix E are measles, mumps and rubella (often given as a combination vaccine MMR), tetanus, diphtheria and acellular pertussis (Tdap), and varicella zoster. The CDC publishes recommendations regarding the number of doses, method of administration, medical exclusions, and any exceptions for certain vaccines based on demonstrated or presumed immunity. Vaccinations would be required to be provided within 10 working days of initial assignment. Newly recommended vaccinations would be required to be provided within 120 days of the issuance of the new recommendation, unless the vaccine is not available. Employees may decline to receive a vaccination. Appendix C contains mandatory wording for vaccine declination.

Proposed subsections (h)(6) through (h)(9) establish procedures that all employers subject to this standard, including referring and laboratory employers, would be required to follow in the event of an exposure incident. An exposure incident is defined in subsection (a) as an exposure to an individual with a diagnosed or suspected, reportable ATD (RATD) when the exposure occurs without the control measures required by this section and where the circumstances of the exposure makes transmission sufficiently likely that an employee should be evaluated by a PLHCP. A laboratory exposure incident is one in which an employee has been exposed to aerosols containing ATPs or ATPs-L without the protection required by this section.

The effect of proposed subsection (h)(6) is to require that an employer who determines that a person is a case or suspected case of an RATD make a report to the local health officer, as required by Title 17. This subsection would also require the employer to determine which employees may have been exposed to the case and to determine from available records, such as admissions records, which other employers, such as ambulance services or referring employers, may have employees who were exposed to the case, and to notify those employers of the exposure. Subsection (h)(6)(B) would then require each employer who becomes aware that employees may have been exposed to an RATD case or to a material containing ATPs-L to analyze the exposure scenario to determine which employees had a significant exposure and to make records of this analysis. The employer would further be required to notify employees who had a significant exposure and to provide a post-exposure evaluation by a PLHCP to each notified employee. This evaluation must include a determination by the PLHCP regarding whether employees must be removed from their regular assignment for a period of time as an infection control precaution (see the discussion of subsection (h)(8) below). This subsection also would establish time frames for notification of employees and other employers.

The effect of proposed subsection (h)(7) is to establish the requirements for information to be provided to a PLHCP. Subsection (h)(7)(A) would establish requirements for information to be provided to PLHCPs who provide medical evaluations for respirator use. These requirements are consistent with existing requirements in Section 5144 and to the federal OSHA requirements in Section 29 CFR 1910.134. In addition to those requirements, the employer would be required to

provide the PLHCP with a copy of this section and applicable CDC and CDPH guidelines. Subsection (h)(7)(B) would establish requirements for provision of information to PLHCPs who provide medical evaluation following an exposure incident. The information to be provided includes a description of the employee's duties as they relate to the exposure incident, the circumstances of the incident, any available diagnostic test results including drug susceptibility of the source, and medical records of the employee that are relevant to the management of the employee, including, as applicable, TB test results or vaccination records for vaccine-preventable illnesses.

The effect of proposed subsection (h)(8) is to establish procedures for precautionary removal recommendations from the PLHCP for RATDs. This subsection refers to infection control recommendations to prevent further transmission during an incubation period, during which the disease may not produce signs or symptoms of infection, but during which the person may be infectious. The period of precautionary removal depends upon the disease and other factors. The proposal establishes that this requirement only applies to a period during which the employee is not ill, but is excluded from the workplace to prevent infection of others, including other employees and patients. This subsection would require that the employer maintain the employee's earnings, seniority and other rights and benefits during this period. Because time is essential for infection control purposes, a removal recommendation from the PLHCP would be required to be provided immediately by phone or fax, and that recommendation is also to be included in the written report described in proposed subsection (h)(9).

The effect of proposed subsection (h)(9) is to require the employer to obtain a written opinion from a PLHCP who performs any medical evaluations required by this section within 15 days of completion of the evaluation. For respirator medical evaluations, the PLHCP would be required to provide the written report required by Section 5144(e)(6), which is equivalent to federal OSHA 29 CFR 1910.134(e)(5). For evaluations of TB conversions and RATD and ATP-L exposure incidents, the opinion would be required to include the applicable test status for the employee, the infectivity status of the employee, a statement that the employee had been informed of the results of the medical evaluation and was offered any applicable vaccinations or prophylaxis, a statement that the employee had been told about any medical conditions resulting from the exposure that require further evaluation or treatment and has been informed of treatment options, and any recommendations for precautionary removal. This subsection would further require that all other findings and diagnoses remain confidential and not be included in the report.

The effect of proposed subsection (h)(10) is to require the provision of the seasonal influenza vaccine at no cost to the employee and would require that the employer ensure that employees who decline the vaccine sign the declination statement included in Appendix C. A note explains that seasonal influenza vaccine need only be provided during the period designated by the CDC for administration of this vaccine.

The effect of proposed subsection (i) is to establish requirements for training. Training would be required at the time of initial assignment and at least annually. Additional training would be required when the exposure circumstances or controls change. Proposed subsection (i)(3) lists the required training elements.

The effect of proposed subsection (j) is to establish recordkeeping requirements, which pertain as applicable to all employers covered by this section. Recordkeeping regarding respirator use would be referred to Section 5144, which contains the same requirements as federal OSHA, 29 CFR 1910.134.

Appendix A (mandatory) is the list of aerosol transmissible pathogens, derived from the CDC guidelines and the input of the advisory committee. The list is divided into those diseases for which

droplet precautions are recommended and those for which airborne infection isolation is recommended.

Appendix B is the alternate medical questionnaire. This questionnaire is mandatory if the employer chooses not to use the medical questionnaire included in Section 5144, Appendix C.

Appendix C is the mandatory vaccine declination wording.

Appendix D (mandatory) is the list of aerosol transmissible pathogens, (ATP-L), derived from the BMBL and from the input of the advisory committee.

Appendix E (mandatory) is the list of recommended vaccinations for health care workers, which was provided by the CDPH and is consistent with CDC recommendations.

Appendix F (non-mandatory) contains sample criteria for the identification of persons in non-medical settings who require referral to a health care provider for evaluation of whether the person has an aerosol transmissible disease.

DOCUMENTS INCORPORATED BY REFERENCE

- Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, December 2005, CDC.
- Biosafety in Microbiological and Biomedical Laboratories, 5th Edition, CDC and National Institutes for Health, 2007.
- Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, June 2007, CDC.
- Respiratory Hygiene/Cough Etiquette in Health Care Settings, CDC, November 4, 2004.

These documents are too cumbersome or impractical to publish in Title 8. Therefore, it is proposed to incorporate the documents by reference. Copies of these documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

The Division has determined that the proposal as a whole will not result in significant costs or savings to state agencies. The Division anticipates that any potential costs would in part be balanced by avoiding the costs inherent in workers' compensation claims, lost work time, and productivity losses that would have been caused by infection of employees with aerosol transmissible diseases. The standard would apply to hospitals and other health care institutions operated by the State of California or the University of California. Infection control requirements, including requirements pertaining to airborne infection isolation, are currently incorporated into Title 22, and the proposed standard is not projected to create significant new costs. Any costs are anticipated to be offset by savings incorporated into the proposal, particularly in regards to biannual fit-testing for non-high hazard respirator use, and a more streamlined respirator evaluation. Prisons and detention facilities operated by the Department of Corrections and Rehabilitation should not incur significant additional costs because provisions relating to tuberculosis surveillance and infection control are consistent with current requirements of Title 15 and Title 22. Prisons, detention facilities, and emergency response organizations may incur some one-time costs in assessing whether their current infection control and communicable disease control programs address all of the elements required in this section. Hospitals, prisons and detention facilities, and emergency response organizations may incur costs of \$5 to \$20 per employee per year in providing the annual seasonal influenza vaccine; however all hospitals are now required by state law to provide these vaccinations, including a declination statement if an employee elects not to take the vaccine. The Joint Committee on the Accreditation of Healthcare Organization (JCAHO) requires flu vaccine for hospitals and skilled nursing facilities under their jurisdiction. These costs should be offset by certain exceptions provided in this section to respiratory protection program requirements, resulting in no significant net costs or savings to any state agency. A detailed discussion of these provisions is included in the section on cost impact on private persons or businesses.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. See discussion below.

Cost Impact on Private Persons or Businesses

The Board has identified the following components of the proposed standard that may result in additional costs or savings to some employers.

Implementation of subsection c: Referring Employers

The following requirements apply to "referring employers," as described by subsection (c).

(c)(1) Designation of responsible person.

(c)(2), (c)(3), and (c)(5) Requirement to develop and implement written procedures for identifying infectious disease hazards and controlling those hazards through "source control"

methods, patient referral or transfer, and risk reduction methods where infectious persons are in the facility or work operations.

(c)(4) Requirement to develop and implement written procedures for communication with employees regarding infectious disease hazards.

(c)(7) Requirements to train employees in regards to these hazards and the employer's control measures.

(c)(8) Requirements for annual review of procedures.

The actions required by these subsections are already required by existing Sections 3203, 3204, 5143, and for respirator users, Section 5144. Therefore no additional costs are associated with these provisions.

The following requirements may require additional actions for some employers, as described below:

Subsection (c)(6) requires medical surveillance for employees with occupational exposure. For health care workers only, this includes provision of four recommended vaccines for employees who are not immune and have not been previously vaccinated. The costs associated with those vaccines are as follows^{1, 2}:

Vaccination	Cost per treatment	Diseases prevented	Ave. Lost workdays caused by disease
MMR	\$43 (may require 2 doses)	Measles, mumps, rubella	20-30 days for the 3 diseases
Varicella zoster	\$142 (total for 2 doses for adults)	Varicella	5-10 days
DTaP	\$22 (+booster every 10 years)	Diphtheria, tetanus, pertussis.	15-43 days
Seasonal Flu (see discussion above)	\$5-20	Influenza unspecified	3 days

These vaccinations have been recommended by the CDC and many employers with facilities licensed under Title 22 have implemented vaccination policies. Most employees in the United States are either considered immune to MMR, or have already been vaccinated. Some employees have already been vaccinated for varicella. Therefore the vaccination provisions of this section, other than the seasonal influenza vaccine, would impose one-time costs ranging from \$0 to \$225 per previously unvaccinated employee, and an additional cost of \$22 per employee per 10 years (or \$2.2 per year). The cost of the seasonal influenza vaccine ranges from \$5 to \$20 per year per exposed employee. These costs will be offset by savings in employee absenteeism and productivity. (See discussion below regarding subsection (h)).

TB surveillance is currently required by Titles 9, 15, and 22 for many of the settings that are included in this subsection, and for those facilities would not impose any new costs. In other settings, as cited above, TB surveillance is recommended by the CDC, CDPH, or other public health authority, and/or is a requirement of block grants or other government funding sources. TB surveillance is currently recommended for workers in these high-risk settings, and employers should be implementing TB surveillance as part of their Injury and Illness Prevention Program. Therefore this subsection should not impose additional costs.

¹ National Immunization Program, Vaccines for Children Program (VFC) CDC Vaccine Price List Prices last reviewed/updated: August 3, 2006

² Advisory Committee on Immunization Practices, Recommended Adult Immunization Schedule --- United States, October 2005--September 2006 Quick Guide MMWR Weekly, October 14, 2005/54(40): Q1-Q4

This subsection also requires employers to establish procedures for exposure incidents. The requirement to investigate and record harmful exposures is already required under Section 3203 and Title 8, Chapter 7, Section 14300 et. seq., so this requirement would create no additional costs. Employers may incur some additional administrative costs in communication with other employers regarding potential infections, although for the most part the effect of this section is to improve the quality and timeliness of these communications. The required communications are expected to involve less than one additional hour per exposure incident for the administrator, and therefore would be a minor cost.

Referring employers who implement respiratory protection for employees are already required to meet all requirements in this subsection for respirator use. These employers will experience some savings due to 1. fewer follow-up referrals for medical evaluations due to a more specific screening questionnaire, and 2. a reduced cost for fit-testing until 2013, because the required repeat fit-test interval for non high-hazard procedures would be lengthened to two years. (See discussion below regarding subsection (g)).

(c)(9) Recordkeeping. This subsection restates and clarifies existing provisions from Sections 3203, 3204, and Sections 5143 and 5144 where applicable. This subsection requires the establishment of a medical record for each employee with occupational exposure. In virtually all cases, this record has already been required to be established to comply with Section 5193. Additional items required to be included in this record would include vaccination records for health care workers, and records of seasonal influenza vaccine. Records of exposure incidents would be required to be included. Records of this type must be created to comply with requirements of Section 3203 regarding investigation of occupational illnesses, and Section 14300 et. seq., in regards to recording occupational illnesses. Therefore no significant new costs are associated with this provision. Some savings may be achieved in the event of an exposure incident as the immunization status of an employee may be immediately determined, thus avoiding unnecessary medical treatment.

In addition to the specific analysis above, the Board notes that many of the proposed requirements for jails and other correctional facilities are currently required to establish a communicable disease control plan, which includes providing transport of a suspect TB case to an appropriate facility, and to establish by Title 15 Crime Prevention and Corrections standards for the control of TB, and Title 17 of the California Code of Regulations, Chapter 4 Preventive Medical Service, also relating to the control of TB. Other existing standards for the control of TB are discussed below.

Implementation of subsection (d): Exposure Control Plans

Subsection (d) applies to establishments that furnish care or other services to individuals requiring airborne infection isolation, and to establishments that perform aerosol-generating procedures on cadavers that are suspect or confirmed cases of ATDs. These are primarily health care facilities that are regulated under current licensing requirements, or correctional health care facilities. Acute care hospitals and skilled nursing facilities, including correctional medical facilities are required by Title 22 Division 5 Licensing and Certification of Health Facilities, Home Health Agencies, Clinics and Referral Agencies to have infection control programs (Title 22 Section 70739). Title 15 additionally requires local correctional and detention facilities to have a communicable disease control plan. Another group of employers offering these services may include home health agencies and hospices, which are also required to establish these procedures under Title 22. Pathologists and other operations in which aerosol generating procedures may be performed on cadavers that are located in health care facilities are also regulated by Title 22. This subsection is not expected to impose any significant additional costs because these programs should already be in place, however, there may be

be some minor costs involved in ensuring that the existing facility program meets the specific requirements in this section. These costs are not expected to exceed a one-time cost of four hours of administrative time per facility, estimated at approximately \$200 or less. Mortuaries that perform embalming procedures on infectious cadavers should have established exposure control plans under Section 5193, and should further have developed infection control procedures under Section 3203, as recommended by the CDC for TB control. Therefore mortuaries are not expected to incur significant new costs.

Implementation of subsection (e): Engineering Controls and personal protective equipment

Source control measures and referral and transfer procedures are already recommended by CDC guidelines, and should have been implemented in accordance with Section 3203. State law now requires the implementation of source control measures in general acute care hospitals. Engineering controls such as airborne infection isolation rooms and areas are required by existing requirements based on the CDC guidelines, cited in this rulemaking, for the control of tuberculosis. The proposed standard does not require the installation of new control systems. The construction of new health care facilities and control systems must comply with the California Office of Statewide Health Planning and Development which specifies airborne infection isolation ventilation performance requirements. Personal protective equipment is already required by sections 3380-84 and Section 5193. Therefore no additional costs are anticipated in complying with this subsection.

Implementation of subsection (f): Laboratories

Subsection (f) is applicable to clinical laboratories and to research laboratories. Clinical laboratories are required to establish biosafety, infection control and quality control procedures under the Clinical Laboratory Improvement Amendments. Research laboratories that receive funding from the CDC are required to comply with the BMBL. Additionally, laboratories in California are required to be licensed by the Department of Health Services, under Title 17. The proposal includes standard laboratory practices that are referenced by all of these authorities, and therefore should not result in any substantial costs to laboratories. One-time costs relating to review and updating of existing biosafety plans to ensure compliance with the specific requirements of this subsection are not anticipated to exceed four hours of administrative time, estimated at approximately \$200 per facility. To the extent that laboratories utilize respiratory protection as a control measure, the requirements of subsection (g) impose no additional costs to the costs of current compliance with Section 5144. The exceptions in subsection (g) will result in savings to laboratories due to 1. fewer follow-up referrals for medical evaluations due to a more specific screening questionnaire, and 2. a reduced cost for fit-testing until 2013, because the required repeat fit-test interval for non high-hazard procedures would be lengthened to two years. (See discussion below regarding subsection (g)).

Implementation of subsection (g): Respiratory Protection

Employers within the scope of Section 5199, who provide care or services to persons requiring airborne infection isolation, or are exposed to laboratory aerosols etc., are already required to provide respirators in accordance with Section 5144. The proposal would affect respirator use as follows:

1. Respirator selection. The proposal would require at a minimum, the least expensive type of respiratory protection, the N95 filtering facepiece respirator for most exposures. This is consistent with current practice, and involves no additional costs. It is currently recommended that employees who perform high hazard procedures on suspected or

confirmed AirID cases, be provided with a higher level of protection, typically a PAPR.³ Some employers currently provide this type of respirator and will experience no additional costs due to this provision. For employers who must implement PAPRs to comply with the requirements in the proposal, the costs are as follows: PAPRs cost approximately \$500 each, which includes a replaceable hood as well as a motor and blower unit, battery and related tubing. The PAPR motor and blower unit can be re-used, and the hoods can be decontaminated. Additionally, the PAPRs used in health care settings do not require a fit-test, which reduces the cost of program administration. Johns Hopkins implemented PAPRs for all respirator use against TB, and according to John Schaefer⁴ experienced cost savings over a one to two year period compared to the use of filtering facepiece respirators. (The cost comparison included staff time spent disinfecting respirators and maintaining the PAPR).

2. Subsection (g)(6) contains a provision which would, for non-high hazard procedures, permit a re-fit-test interval of up to 24 months, as compared to the 12 month fit-test interval currently required in Section 5144(f)(2). The effect will be to reduce the cost to employers for conducting fit testing by fifty percent. Information provided to the Standards Board on May 27, 2004, by the California Association for Professionals in Infection Control and Epidemiology Coordinating Council showed that the total number of health care workers fit tested in California was approximately 272,000 and the cost to fit test them was 5.1 million dollars. There would thus be an annual savings of about 2.55 million dollars for this industry segment alone.⁵ At an institution with 500 respirator users, this savings would be \$5000 per year, for the six-year period prior to this provision expiring. These savings would more than off-set any costs sustained by the institution in implementing other portions of this standard.
3. Subsection (g)(5) permits employers to utilize a more specific questionnaire for respirator medical evaluations. This questionnaire is expected to reduce the number of unnecessary referrals to a PLHCP for further medical evaluation for respirator use. This is expected to save employers the cost of the medical visit, estimated at approximately \$100, and the cost of the employee's time, approximately \$50 on average.

Implementation of subsection (h): Medical Surveillance

As described below, all employers included within the scope of this section must comply with some or all of the subsections regarding medical surveillance. All employers included within the scope of this standard have been identified by the CDC as being at increased risk for tuberculosis, and therefore requiring medical surveillance. In addition, licensed health care facilities and correctional facilities and other detention facilities are required to have infection control and/or communicable disease control programs that include medical surveillance provisions. Drug treatment programs require tuberculosis surveillance as part of the block grant provisions. For many employers, the medical surveillance provisions should not result in any increased costs. To the extent that employers are not providing the recommended or required medical surveillance, the Division has identified the following potential costs, and savings.

Vaccinations and prophylaxis

The actual cost of providing vaccinations recommended by the California Department of Health Services is summarized in the table below. The ACIP of the CDC recommends that all health care workers be immune to mumps, measles and rubella, tetanus, diphtheria and pertussis and varicella

³ American College of Chest Physicians and American Association for Bronchology Consensus Statement: Prevention of Flexible Bronchoscopy-Associated Infection Atul C. Mehta, Udaya B.S. Prakash, Robert Garland, Edward Haponik, Leonard Moses, William Schaffner and Gerard Silvestri Chest 2005;128;1742-1755 DOI: 10.1378/chest.128.3.1742

⁴ Private conversation, John Shaefer reported in minutes 9-28-05 meeting

⁵ APIC, letter dated May 27, 2004

zoster. MMR is recommended for non-vaccinated health care workers born after 1957. Most persons born after 1957 have already been vaccinated for MMR, but for those who have not been vaccinated, the one-time cost for two doses is \$86. Tdap requires a booster every 10 years, and costs approximately \$22. That is an annual cost of \$2.20 per employee. Varicella zoster vaccine is recommended for non-vaccinated health care workers born after 1980. Most persons born after 1980 have been vaccinated, but for those who have not, there would be a one-time cost of \$142 for two doses. However, the cost of each dose would be offset by the prevention or mitigation of the specific disease, and the reduction of lost work time and workers' compensation benefits that would otherwise be incurred by the employer. The vaccine, cost per treatment and average lost workdays are listed in the table below. The table does not include the additional significant costs that would be incurred if the disease is transmitted from an infected employee to other employees, or from employees to patients or residents, clients or inmates.

Vaccination	Cost per treatment	Diseases prevented	Ave. Lost workdays due to disease
MMR	\$43 (may require 2 doses)	Measles, mumps, rubella	20-30 days for the 3 diseases
Varicella zoster	\$142 (total, private, for 2 doses for adults)	Varicella	5-10 days
Tdap DTaP?(See box on page 47)	\$22 (+booster every 10 years)	Diphtheria, tetanus, pertussis.	15-43 days
Seasonal Flu (see discussion above)	\$5-20	Influenza unspecified	3 days

Seasonal influenza vaccine

It was reported to the Division during the advisory process that many health care institutions in California already offer free seasonal flu vaccinations to health care workers. California law now requires that acute care hospitals provide seasonal influenza vaccine to employees, and require a written declination by employees who do not accept the vaccine. JCAHO has also made this a requirement for accreditation, which applies to critical access hospitals, hospitals, and long-term care facilities. For other employers who do not already offer the vaccinations, an independent analysis by the Stanford Medical Center in 2004 concluded that the cost of the vaccine, ranging from 5-20 dollars per vaccination, for employees in general would be offset by savings due to preventing a productivity loss of almost 3 sick days per individual.

Implementation of subsection (i): Training

The Division has determined that the training requirements do not impose significant additional costs because most of the required training elements are currently required as part of the Injury and Illness Prevention Plan, and may also be required under California Code of Regulations, Titles 15, 17, or 22 for the specific type of employer.

Implementation of subsection (j): Recordkeeping

The Division has determined that the recordkeeping requirements of this section do not impose significant costs to employers because the records that would be required are for the most part required under current standards.

Subsection (j)(1) would require the employer to establish and maintain a medical record for each employee with occupational exposure. For most employees covered under this standard, a medical record is already required to be established under Section 5193. Section 3204 also establishes requirements for medical records. The proposed standard would require the placement of additional vaccination records and records of exposure incidents in this file. There are minimal costs associated with these filings.

Subsection (j)(2) would require the maintenance of training records. The maintenance of training records is currently required under Section 3203.

Subsection (j)(3) would require records of Plan implementation. These records are currently required under Section 3203. Records of inspection of ventilation systems are also required to be kept under Sections 5142 and 5143. New records would be required to be created regarding the unavailability of vaccine, which would be a single record for an institution, and for the unavailability of isolation facilities. These records are required to be created only in the unusual circumstance of the unavailability of a required control measure, and are expected to create minimal costs. Recordkeeping requirements of the respiratory protection program are referenced to the current requirements of Section 5144.

The availability of records is consistent with other sections, including Sections 3204 and 3203, and does not impose any additional costs.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does impose nondiscretionary costs or savings on local agencies.

The costs and savings expected to be incurred by local agencies are those of a typical business, as described above. Overall, this proposal is expected to result in savings in regards to respirator use that will offset any additional costs incurred in the implementation of other provisions of the standard.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because this standard does not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements

on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standard does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed standard does not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standard.

The proposal does require employers to provide information to the local health officer, and requires the employer to take certain actions when recommended by the local health officer. The role of the local health officer under this standard is to fulfill the mandatory functions under Title 17, and Title 15 of the California Code of Regulations, and under the Health and Safety Code.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses.

ASSESSMENT

The adoption of the proposed standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

REASONABLE ALTERNATIVES CONSIDERED

Our Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective as and less burdensome to affected private persons than the proposed action.

2. **TITLE 8:** **GENERAL INDUSTRY SAFETY ORDERS**
Division 1, Chapter 4, Subchapter 7, Article 109
New Section 5199.1
Aerosol Transmissible Diseases—Zoonotics

INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT OVERVIEW

Pursuant to California Labor Code Section 142.3, the Occupational Safety and Health Standards Board (Standards Board) may adopt, amend, or repeal occupational safety and health standards or orders. Section 142.3 permits the Standards Board to prescribe, where appropriate, suitable protective equipment and control or technological procedures to be used in connection with occupational hazards and provide for monitoring or measuring employee exposure for their protection.

The Division of Occupational Safety and Health (Division) is proposing that the Standards Board add new Section 5199.1 to control aerosol transmissible disease hazards resulting from exposures to

infected animals or animal products. Employees in a variety of settings may be exposed to existing zoonotic infection risks, such as hantavirus pulmonary syndrome, monkeypox, anthrax (from untreated animal hides), bovine tuberculosis, and Q fever, and emerging zoonotic threats including some strains of avian influenza.

This proposed section incorporates a graduated system of controls based on the level of disease hazard and type of operation. For normal operations, where there is no alert or warning from the applicable government agency regarding an aerosol transmissible zoonotic disease, the standard refers to existing requirements under Section 3203, Injury and Illness Prevention Program, for hazard identification and control, investigation of injury and illness, and training. It also refers to other protective measures such as sanitation and personal protective equipment, which are covered by Sections 3360 through 3368 and 3380 through 3387.

The proposed section includes additional requirements for operations in which employees are exposed to an aerosol transmissible zoonotic disease hazard in wildlife. These requirements are triggered by the issuance of an alert or other notification by agencies of the United States Department of the Interior (USDO I), the United States Department of Agriculture (USDA), or by the United States Centers for Disease Control and Prevention (CDC), the California Department of Food and Agriculture (CDFA), California Department of Fish and Game (CDFG), or the California Department of Public Health (CDPH). These measures would include training, use of work methods that minimize the production of aerosols, the use of personal protective equipment, sanitation and decontamination practices, and medical surveillance measures. Respiratory protection would be required where there is an increased concentration of potentially infectious aerosols.

Similarly, farms and associated operations identified by the USDA or the CDFA as being at increased risk of infection would be required to implement sanitation and other protective measures for employees who are in contact with potentially infected animals or their products, byproducts or wastes. These measures would include the identification of areas in which exposure is likely to occur, and the restriction of entry into those areas, which would be under the supervision of a trained person. For employees who enter these areas, the proposal includes requirements for training, protective clothing and personal protective equipment, sanitation facilities, medical surveillance, and respiratory protection.

The highest level of protection would be required for operations involving the handling, culling, transport, killing, eradication, or disposal of animals infected with zoonotic aerosol transmissible pathogens, or the cleaning and disinfection of areas that contain or contained those animals. Because of the increased risk of infection, these operations would require a detailed work plan, including a supervised restricted area and contaminant reduction (decontamination) zone; employee training; personal protective equipment and clothing; respiratory protection; and medical surveillance.

The specific effects of the proposed standard and related federal equivalency of specific sections are discussed below.

This proposal arises in the context of increased awareness of the importance of zoonotic diseases as a threat to human health. Avian influenza epidemics among poultry in Canada and in the Netherlands resulted in significant infections in farm workers and in veterinarians and workers engaged in animal eradication and related tasks. One veterinarian died as a result of disease contracted while performing surveillance activities. Persons exposed to birds infected with the current Asian origin strains of H5N1 avian influenza have experienced significant morbidity and mortality. Some California employees who engaged in eradication efforts related to Exotic Newcastle Disease (END) developed eye infection related to that exposure. In the past, the Division has investigated zoonotic disease

hazards in the context of Q fever in an animal research facility which resulted in a special order (Special Order [Cal/OSHA Form 3] is an Order written by the Chief of the Division of Occupational Safety and Health, or his or her authorized representative, to remedy an unsafe condition, device, or place of employment which poses a threat to the health or safety of an employee, and which cannot be made safe under an existing Title 8 Safety Order [P&P C-3, ref Labor Code 6305(b), 6308(c), and 6600.5]).

The Division has also investigated zoonotic disease hazards in farms, veterinary practices, research facilities and pet stores.

Federal Equivalence

There is no federal standard that is equivalent to the proposed standard or to Section 3203. The proposed standard refers the use of respiratory protection to existing Section 5144 which is equivalent to the federal OSHA Respiratory Protection standard, 29 CFR 1910.134. It refers access to employee exposure and medical records to Section 3204, which is equivalent to the federal OSHA standard, 29 CFR 1910.1020. It refers certain requirements for the use of personal protective equipment to Sections 3380-87, which has been previously determined to be equivalent to 29 CFR 1910 Subpart I. It refers certain requirements for hygiene facilities to Sections 3360-68 which is equivalent to 29 CFR 1910.141. The proposed standard is at least as effective as existing federal standards.

Specific Effects of the Proposed Standard

Subsection (a) includes the scope, application and definitions applicable to this section. The effect of subsection (a)(1) is to apply the standard to occupational exposure to animals and to animal products, byproducts or wastes, unless they have been processed to effectively reduce zoonotic disease hazards. The work operations specifically included in the standard are those involving occupational exposure to wildlife; farms which produce animals or animal products; animal transport operations; slaughterhouses and initial processing facilities for untreated animal products, byproducts or wastes; animal health and surveillance operations, such as veterinary services and animal inspection; importers of live animals or untreated animal products; places which house animals, such as zoos, pet stores, and animal research facilities; operations that clean, disinfect, or decontaminate areas in which animals have been housed; and laboratories in which exposure occurs. The standard would not apply to meat or animal products which have been inspected in accordance with the standards of the USDA or CDFA, and it does not apply in restaurants.

The effect of subsection (a)(2) is to specify which portions of the standard apply to certain types of zoonotic disease hazards. Subsection (a)(2)(A) would clarify the existing responsibility of employers to address zoonotic aerosol transmissible disease hazards in their Injury and Illness Prevention Program under Section 3203. The effect of this subsection is to relieve employers from further compliance with this section so long as they do not meet any of the criteria in subsections (a)(2)(B) through (a)(2)(F), and to direct them to address zoonotic ATP hazards through their Injury and Illness Prevention Program.

Subsection (a)(2)(B) would require additional protections as outlined in subsection (b) for employees who are exposed to wildlife for which there is an alert in effect regarding a zoonotic disease hazard and for employees who conduct capturing and sampling activities of animals to detect the presence of zoonotic infections. Employers affected by this subsection would also be required to comply with the recordkeeping requirements in subsection (e).

Subsection (a)(2)(C) would require additional protections as outlined in subsection (c) for employees in establishments or operations for which the USDA or CDFA requires additional infection control measures due to an increased risk of infection with zoonotic aerosol transmissible pathogens (ATPs). Employers affected by this subsection would also be required to comply with the recordkeeping requirements in subsection (e).

Subsection (a)(2)(D) would require additional protections, as enumerated in subsection (d), for employees who are involved in the handling, culling, transport, killing, eradication or disposal of animals infected with zoonotic ATPs or the cleaning and disinfection of areas that contain or contained those animals. Affected employers would also be required to comply with recordkeeping requirements in subsection (e).

Subsection (a)(2)(E) would require that laboratories comply with Section 5199(f). Subsection 5199(f) would require the establishment of a biosafety plan, which includes hazard identification, administrative and work practice controls, personal protective equipment, medical surveillance and recordkeeping. The effect of this subsection is to relieve laboratories from further compliance with this section, and to address hazards relating to zoonotic ATPs through compliance with Section 5199(f).

Subsection (a)(2)(F) requires that operations within the scope of Section 5192, Hazardous Waste and Emergency Response Operations, must also comply with that section.

The effect of subsection (a)(3) is to inform employers and employees of the existing employer obligation under the Labor Code to provide all safeguards, including training, personal protective equipment, respirators and medical surveillance and management, at no cost to the employee and during the employee's working hours.

The effect of subsection (a)(4) is to establish definitions for terms used in the proposed standard.

The effect of subsection (b) is to require protective measures for employees who are exposed to wildlife for which an alert regarding the potential of zoonotic infection has been issued by the USDOJ, USDA, CDC, CDFA, CDFG or CDPH. Subsection (b)(1) would require the employer to establish, implement and maintain effective written procedures for the capture or sampling of animals to detect the presence of zoonotic ATPs and for the collection and disposal of animals for which an alert has been issued. Subsection (b)(2) would require that the procedures include work practices that minimize the production of aerosols, the use of personal protective equipment, cleaning and decontamination procedures, medical surveillance and training. Subsection (b)(3) would require the use of respiratory protection in accordance with Section 5144 when there is an increased potential of exposure to infectious aerosols.

The effect of subsection (c) is to require written effective disease control measures for employees during a period when the USDA or CDFA has issued an infection control order applicable to an establishment due to an increased risk of a zoonotic ATP infection. Subsection (c)(1) would require the identification and posting of restricted areas in which these additional control measures are required due to the potential exposure of employees to sources of infection. Subsection (c)(2)(A) would require that employees who enter restricted areas be supervised by a person who is knowledgeable about the employer's control procedures. Subsection (c)(2)(B) would require that employees be provided with and use appropriate protective clothing and equipment and that the clothing and equipment be laundered or disposed of in a manner that would not further expose employees to potentially infectious materials. This subsection would also require the use of eye,

mouth and nose protection in accordance with Sections 3380-87 when it is necessary to prevent disease transmission by contact with mucous membranes.

Subsection (c)(2)(C) would require that the employer provide, and ensure that employees use, approved respiratory protection in accordance with Section 5144 when entering into enclosed areas where aerosols from potentially infectious animals or animal wastes are present. Subsection (c)(2)(D) would require that the employer provide sanitary facilities and a method to access them, including change and shower rooms in compliance with Sections 3360-3368. An exception allows alternate sanitation measures when change and shower rooms are not feasible. Subsection (c)(2)(E) would require the employer to provide any medical surveillance, vaccinations or prophylaxis that is recommended by the appropriate public health authority (CDC, CDPH, or Local Health Officer) for employees exposed to these hazards.

Subsection (c)(2)(F) would require that the employer provide training that is appropriate in content and vocabulary to the educational level, literacy and language of employees. Subsection (c)(2)(G) would require the employer to establish procedures to record the entry of persons into restricted areas and to maintain those records in accordance with Section 3204. The effect of subsection (c)(3) would be to permit employers to return to routine infection control measures (as adopted in accordance with subsection (a)(2)(A)) when testing acceptable to the agency placing the infection control order demonstrates that the premises are not at increased risk of infection, although the movement restriction may still be in force.

The effect of subsection (d) is to establish requirements for animal disease control procedures when work operations involve exposure to animals that are either diagnosed with or assumed to be infected with zoonotic ATPs. These operations include the handling, culling, transport, killing, eradication or disposal of infected animals, as well as the cleaning and disinfection of areas containing the animals or their wastes. It would require that the employer establish written procedures to control the zoonotic disease hazard.

Subsection (d)(1) would require that the written procedures include a detailed work plan that includes a hazard assessment and a description of site control measures and zones; a list of all jobs, tasks and procedures in which employees have occupational exposure; procedures for the safe handling of hazardous substances; a description of exposure control measures; procedures for the application of toxic or asphyxiant gases; procedures to provide access to drinking water and sanitation facilities; and procedures to protect employees against the risk of heat illness.

Subsection (d)(2) would require that operations in the restricted area be supervised by a person knowledgeable about, and authorized to enforce, the employer's zoonotic disease control procedures. This person is required to ensure that all persons who enter the restricted area are trained in those procedures and use appropriate protective measures. Subsection (d)(3) would require that the employer provide, and ensure that employees use, personal protective equipment and clothing meeting the requirements of Sections 3380 through 3387 and capable of being decontaminated or disposed of.

Subsection (d)(4) would require that the employer provide respiratory protection during operations in the restricted area in accordance with Section 5144, unless the employer demonstrates that other control measures have eliminated the risk to employees. This section would specify that employees working in an enclosed area use at a minimum elastomeric facepiece respirators or powered air-purifying respirators with appropriate cartridges unless the employer can demonstrate that this level of respiratory protection is not necessary to protect employees. This subsection would also require

that employees in the restricted area use appropriate eye protection, unless eye protection is provided by the respirator.

Subsection (d)(5) would establish requirements for the use of toxic or asphyxiant gases. These procedures would include the posting of signs outside of the area of application, the prohibition of entry while signs are posted unless entry is made in accordance with procedures for atmospheres immediately dangerous to life or health (IDLH) in Section 5144; procedures for ventilation and testing prior to removal of signs and re-entry; and requirements to protect workers in areas adjacent to the application area. This subsection additionally refers confined space operations to Section 5157, and fumigation operations to Sections 5221 through 5223.

Subsection (d)(6) would require that the procedures for treatment and disposal of animal waste and contaminated personal protective equipment and clothing minimize employee exposures to zoonotic disease hazards and be in accordance with the standards of the California Environmental Protection Agency and the United States Environmental Protection Agency. Subsection (d)(7) would require the employer to ensure that employees leaving the restricted area are appropriately decontaminated and that contaminated clothing and equipment be decontaminated or disposed of. Change rooms and showers would be required unless these facilities are not feasible, in which case the employer would be required to implement alternative measures for decontamination and changing clothes.

Subsection (d)(8) would establish requirements for a medical surveillance program. This subsection would require the employer to consult a physician or other licensed health care provider (PLHCP) who is knowledgeable about the zoonotic disease hazards and chemical hazards in the operation in developing the program. It would also require that the program maintain the employee's rights to medical confidentiality. It would require the employer to provide all medical surveillance, vaccination and prophylaxis recommended by the PLHCP or public health agencies. The minimum requirements for the medical surveillance program are enumerated in subsections (A) through (F).

Subsection (d)(8)(A) would require that employees be provided with an initial medical evaluation prior to initial entrance into a restricted area, including an evaluation in accordance with Section 5144(e) for the use of respirators. Subsection (d)(8)(B) would require that the employer refer employees who are exhibiting signs or symptoms of zoonotic diseases, or who request a referral, to a PLHCP.

Subsection (d)(8)(C) would require appropriate medical surveillance for the signs and symptoms of over-exposure to hazardous substances. It would require the referral of an employee exhibiting those signs or symptoms, or who requests a referral, to a PLHCP. The employer would also be required to investigate the exposure and correct any hazards found.

Subsection (d)(8)(D) would require the provision of vaccinations or prophylaxis as recommended by the Local Health Officer, the CDC, the CDPH, or the PLHCP. Subsection (d)(8)(E) would require follow-up medical evaluations as recommended by the CDC, the CDPH, the Local Health Officer or the PLHCP.

Subsection (d)(8)(F) would limit information the PLHCP provides to the employer for respirator medical evaluations to the information required in Section 5144(e)(6)(A). In regards to vaccination or prophylaxis, the information provided to the employer would be limited to whether the employee is authorized to enter the restricted area. For referrals and follow-up medical evaluations, the information would be limited to the statement that the employee has received the evaluation, whether further evaluation is required, and whether the employee is authorized to work in the restricted area.

Subsection (d)(9) would require training that is appropriate in content and vocabulary to the educational level, literacy and language of employees.

The effect of subsection (e) is to establish requirements for creating and maintaining records regarding zoonotic disease hazards and control measures. Subsection (e)(1) would require that records of implementation of hazard evaluation and control measures required by this section and training be maintained in accordance with Section 3203. Subsection (e)(2) would require that employee exposure records be maintained in accordance with Section 3204. These records would include zoonotic disease control procedures established under subsections (b), (c) and (d); records of entry into restricted areas; records of employee monitoring and atmospheric testing; and exposures to hazardous substances.

Subsection (e)(3) would require that records of medical surveillance be maintained in a confidential manner and in accordance with existing Section 3204. Subsection (e)(4) would require that records of the respiratory protection program be established and maintained in accordance with existing Section 5144 and Section 3204.

Subsection (e)(5) would establish access requirements for these records. Subsection (e)(5)(A) would require that all records established under this section be provided upon request to the Chief of the Division and his representatives, NIOSH, and the Local Health Officer. Subsection (e)(5)(B) would require that training records be made available to the employee, employee representatives, to the Chief and his representatives, and to NIOSH.

Subsection (e)(5)(C) would require that employee exposure records be made available to employees, employee representatives, the Chief and his representatives, NIOSH, and the Local Health Officer. Subsection (e)(5)(D) would require that employee medical records required by this section be provided to the employee, anyone having the employee's signed written consent, the Chief and his representatives, NIOSH, and the Local Health Officer, in accordance with Section 3204.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

State agencies whose employees are exposed to zoonotic disease hazards are required by current standards to develop procedures as part of the Injury and Illness Prevention Program (IIPP) and Sections 3360 through 3368 and 3380 through 3387. In addition to the requirements of Title 8, operations in agencies within the scope of this section must meet infection control or biosecurity guidelines applicable to their operations. Therefore, this standard is anticipated to provide no additional requirements or associated costs during normal operations. Field biologists and other employees at the CDFG and CDPH who are involved in disease surveillance would be affected by an alert involving wildlife potentially infected with a zoonotic aerosol transmissible pathogen. The provisions of subsection (b) would apply to those employers. These agencies have already adopted programs to protect employees who perform these functions, including avian influenza response plans. Other state agencies in which employees may have incidental contact with affected animal species, may elect to prevent occupational exposure through their IIPP, by instructing employees not to handle the effected dead animals or enter areas where these animals may be located. Employers who will deal with potentially infectious wildlife will be required by subsection (b) to adopt control procedures. These procedures are already be required by Section 3203, as illustrated by citations

issued by the Division for such exposures.⁶ Therefore, this section is not expected to impose additional costs.

State agencies, whose employees visit establishments which have been identified by the CDFA or the USDA as being at increased risk of infection with zoonotic aerosol transmissible pathogens would be required to implement additional control measures under subsection (c). Some of these agencies include the CDFA, the University of California and Avenal State Prison, which has a poultry operation. At the time of such an alert, these agencies would be required to implement additional biosecurity and control measures in accordance with the recommendations of the USDA Animal and Plant Health Inspection Service (APHIS) protocols.⁷ The CDFA implemented programs for control of exposures to END and bovine TB and has developed programs to control exposure to highly pathogenic avian influenza. The Division believes that these increased biosecurity protocols and associated zoonotic disease control procedures are required under existing Section 3203 as hazard control procedures, and therefore their requirement in this subsection does not impose additional costs. The University of California at Davis has developed recommendations for biosecurity and employee safety during such an alert period,⁸ including the implementation of filtering facepiece respirators and other protective equipment. The Division further believes that existing Section 5144 would require the use of respiratory protection where there is an aerosol infectious disease hazard, and therefore respirator use does not impose new costs. The Division further believes that sanitation facilities for employees, including shower and change rooms and use of personal protective equipment would also be required to comply with existing standards, and therefore these requirements do not impose new costs. This proposal does not require CDFA or CDPH to develop alerts. It recognizes the existing jurisdiction of those agencies to deal with animal disease threats and provides a mechanism to implement concurrent health and safety protections.

State agencies that conduct operations involving the culling, killing, disposal etc., of infected animals or the cleaning of areas harboring those animals would be regulated under subsection (d). The Division has identified these agencies as CDFA, the Governor's Office of Emergency Services, CDPH and CDFG. The requirements of this subsection include additional written procedures including a detailed work plan, establishment of restricted areas and decontamination procedures, access to drinking water and sanitation facilities, and provisions to reduce the risk of heat illness. This subsection requires respiratory protection in enclosed areas, and specifies the minimum level of protection required. It also requires medical surveillance and training.

It is likely that operations addressed in subsection (d) would be considered hazardous waste operations or emergency response operations, which would be regulated under Section 5192, which includes all of the elements in this subsection. This subsection is more specific to the hazard and adopts some pre-existing hazard assessment which was developed with the assistance of an advisory committee, and with the participation of various agencies and private entities. To the extent that this subsection makes the requirements of Section 5192 more specific to the anticipated level of hazard, it will reduce costs from those imposed under Section 5192. For example, Section 5192 requires air supplied respirators and level B clothing for an uncharacterized hazardous waste site and the use of self-contained breathing apparatus (SCBA). The costs of implementation of these provisions is far greater than the costs imposed by the protective requirements included in this subsection, which are elastomeric facepiece respirators or powered air purifying respirators. For example, an SCBA costs approximately \$2000 to \$3500 as compared with a PAPR, which costs approximately \$700 to \$900, or a full facepiece respirator, which costs about \$10-\$250, or a half-face air purifying respirator,

⁶ Gold, D. Memo to File. January 12, 2007

⁷ Animal and Plant Health Inspection Service. Summary of the National Highly Pathogenic Avian Influenza National Response Plan. United States Department of Agriculture. April 2006

⁸ Cardona C, Halverson, Hudson W. Poultry Industry Alert Levels. University of California at Davis. July 5, 2006

which costs \$50 or less.⁹ Where Section 5192 would not apply, then these control measures would be required under Section 5144, Section 3395, Section 3203, and Sections 3360 through 3368 and 3380 through 3387. It is likely that these disease control and clean-up operations involving agriculture or wildlife will be conducted under the supervision of USDA, CDFA or another government agency, which will be developing both the detailed work plan and other site safety measures that will be required as a cost of the contract. In addition, the USDA is expected to pay for some or all of the costs of operations that are carried out under its authority and mandate to control animal diseases. Finally, funding has been provided to state agencies for avian/pandemic flu preparedness which includes the development of procedures such as those required under this section, and the purchase of equipment. Therefore, the Division believes that this subsection will not impose significant increased costs beyond those already projected to be incurred by employers who perform these operations.

Subsection (e) enumerates recordkeeping requirements for this section. It incorporates existing requirements of Sections 3203, 3204, 5144 and 5194. It would require employers with operations under subsections (c) and (d) to establish records of persons entering the restricted area and make those records available to the local health officer upon request. To the extent that this is a new requirement, it is not expected to impose significant costs. The Division estimates that the time spent maintaining a log of persons entering the restricted area (which may already be required by other agencies) as less than one half hour per work shift for which the requirement is in effect.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. See discussion below.

Cost Impact on Private Persons or Businesses

The Board has identified the following components of the proposed standard that may result in additional costs or savings to some employers.

Employers whose employees are exposed to zoonotic disease hazards are required by current standards to develop procedures as part of the IIPP and Sections 3360 through 3368 and 3380 through 3387. In addition to the requirements of Title 8, operations in many of the establishments identified in the scope of this section must meet infection control or biosecurity guidelines and quarantine procedures applicable to their industry. Therefore, this standard is anticipated to provide no additional requirements or associated costs during normal operations.

Private employers who are affected by an alert involving wildlife potentially infected with a zoonotic aerosol transmissible pathogen include veterinarians, private parks and zoos, and animal shelters that accept wildlife. The provisions of subsection (b) would apply to those employers, who may elect to prevent occupational exposure through their IIPP, by instructing employees not to handle the effected dead animals or enter areas where these animals may be located. Employers who elect to deal with potentially infectious wildlife will be required by subsection (b) to adopt additional control

⁹ Lab Safety Supply, assorted items

procedures. These procedures would already be required by Section 3203, as illustrated by citations issued by the Division for such exposures. Therefore, this subsection is not expected to impose additional costs.

Subsection (c) would require agricultural establishments identified by the CDFA or USDA as being at increased risk of infection with zoonotic aerosol transmissible pathogens to implement additional control measures. As part of the CDFA or USDA order, affected establishments would be required to implement additional biosecurity measures, including restriction of persons and equipment entering the facility, posting of biosecure areas, increased use of such protective equipment as boot covers, and increased clothes changing and sanitation requirements. The Division believes that these increased biosecurity protocols and associated zoonotic disease control procedures would also be required under existing Section 3203, and therefore the requirements included in this subsection do not impose additional costs. The University of California at Davis has developed recommendations for biosecurity and employee safety during such an alert period,¹⁰ including the use of filtering facepiece respirators and other protective equipment. The Division believes that existing Section 5144 would require the use of respiratory protection where there is an aerosol infectious disease hazard, and therefore respirator use does not impose new costs. The Division further believes that sanitation facilities for employees, including shower and change rooms, and use of personal protective equipment, would be required to comply with existing standards, and therefore these requirements do not impose new costs. Therefore, this subsection clarifies how existing requirements would apply, and does not impose substantial additional costs.

Private employers who conduct operations involving the handling, culling, killing, disposal etc., of infected animals, or the cleaning of areas harboring those animals, would be regulated under subsection (d). This subsection includes additional written procedures including a detailed work plan, establishment of restricted areas and decontamination procedures, access to drinking water and sanitation facilities, and provisions to reduce the risk of heat illness. This subsection requires respiratory protection in enclosed areas and specifies the minimum level of protection required. It also requires medical surveillance and training. It is likely that the operations addressed in subsection (d) would be considered to be hazardous waste operations or emergency response operations, which would be regulated under Section 5192, which includes all of the elements in this subsection. This subsection is more specific to the hazard and adopts some pre-existing hazard assessment developed with the assistance of an advisory committee, and with the participation of various agencies and private entities. To the extent that this subsection makes the requirements of Section 5192 more specific to the anticipated level of hazard, it will reduce costs from those imposed under Section 5192 for work sites that have not been assessed. For example, Section 5192 requires air supplied respirators and level B clothing for an uncharacterized hazardous waste site and the use of self-contained breathing apparatus for emergency response. The costs of implementation of these provisions is far greater than the costs imposed by the protective requirement included in this subsection, which are elastomeric facepiece respirators or powered air purifying respirators. For example, an SCBA costs approximately \$2000 to \$3500 as compared to a PAPR, which costs approximately \$700 to \$900 or a full facepiece respirator, which costs about \$150-\$250, or a half-face air purifying respirator, which costs \$50 or less.¹¹ Where Section 5192 would not apply, then these control measures would be required under Section 5144, Section 3395, Section 3203, and Sections 3360 through 3368 and 3380 through 3387. It is likely that these disease control and clean-up operations involving agriculture or wildlife will be conducted under the supervision of the USDA, CDFA or other government agency, which will be developing both the detailed work plan and other site safety measures that will be required as a cost of the contract. Therefore the Division believes

¹⁰ Cardona C, Halverson, Hudson W. Poultry Industry Alert Levels. University of California at Davis. July 5, 2006

¹¹ Lab Safety Supply, assorted items

that this section will not impose significant increased costs beyond those already projected to be incurred by employers who perform these operations.

Subsection (e) enumerates recordkeeping requirements for this section. It incorporates existing requirements under Sections 3203, 3204, 5144 and 5194. It would require employers with operations under subsections (c) and (d) to establish records of persons entering the restricted area, and to make those records available to the local health officer upon request. To the extent that this is a new requirement it is not expected to impose significant costs. The Division estimates that the cost of maintaining a log of persons entering the restricted area (which may already be required by other agencies) as less than one half hour per work shift for which the requirement is in effect.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does impose nondiscretionary costs or savings on local agencies.

The costs and savings expected to be incurred by local agencies are those of a typical business, as described above. Overall, this proposal is expected to result in savings in regards to respirator use that will offset any additional costs incurred in the implementation of other provisions of the standard.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because this standard does not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standard does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed standard does not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standard.

The proposal does not impose additional duties upon the local health officer. It recognizes the existing authority of the local health officer under Title 17 of the California Code of Regulations and the Health and Safety Code to order control measures to protect the health of persons in the jurisdiction.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed standard may affect small businesses.

ASSESSMENT

The adoption of the proposed standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

REASONABLE ALTERNATIVES CONSIDERED

Our Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective as and less burdensome to affected private persons than the proposed action.

A copy of the proposed changes in STRIKEOUT/UNDERLINE format is available upon request made to the Occupational Safety and Health Standard Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833, (916) 274-5721. Copies will also be available at the Public Hearing.

An INITIAL STATEMENT OF REASONS containing a statement of the purpose and factual basis for the proposed actions, identification of the technical documents relied upon, and a description of any identified alternatives has been prepared and is available upon request from the Standards Board's Office.

Notice is also given that any interested person may present statements or arguments orally or in writing at the hearing on the proposed changes under consideration. It is requested, but not required, that written comments be submitted so that they are received no later than August 15, 2008. The official record of the rulemaking proceedings will be closed at the conclusion of the public hearing and written comments received after 5:00 p.m. on August 21, 2008, will not be considered by the Board unless the Board announces an extension of time in which to submit written comments. Written comments should be mailed to the address provided below or submitted by fax at (916) 274-5743 or e-mailed at oshsb@dir.ca.gov. The Occupational Safety and Health Standards Board may thereafter adopt the above proposals substantially as set forth without further notice.

The Occupational Safety and Health Standards Board's rulemaking file on the proposed actions including all the information upon which the proposals are based are open to public inspection Monday through Friday, from 8:30 a.m. to 4:30 p.m. at the Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833.

The full text of proposed changes, including any changes or modifications that may be made as a result of the public hearing, shall be available from the Executive Officer 15 days prior to the date on which the Standards Board adopts the proposed changes.

Inquiries concerning either the proposed administrative action or the substance of the proposed changes may be directed to Marley Hart, Executive Officer, or Michael Manieri, Principal Safety Engineer, at (916) 274-5721.

You can access the Board's notice and other materials associated with this proposal on the Standards Board's homepage/website address which is <http://www.dir.ca.gov/oshsb>. Once the Final Statement of Reasons is prepared, it may be obtained by accessing the Board's website or by calling the telephone number listed above.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

JOHN D. MACLEOD, Chairman

NOTICE OF ADOPTION OF
REGULATIONS
INTO TITLE 8, CALIFORNIA CODE OF REGULATIONS
BY THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

After proceedings held in accordance with and pursuant to the authority vested in Sections 142, 142.3 and 142.4, of the Labor Code to implement, interpret, or make specific, the Occupational Safety and Health Standards Board, by a majority vote, adopted additions, revisions, or deletions to the California Code of Regulations as follows:

1. Title 8, Division 1, Chapter 4, Subchapter 4, Article 29, Section 1710(k)(2), **Permanent Flooring—Skeleton Steel Construction in Tiered Buildings**

Heard at the April 17, 2008, Public Hearing; adopted on May 15, 2008; filed with the Secretary of State on June 6, 2008; and became effective on June 6, 2008.

Copies of this standard are available upon request from the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833, (916) 274-5721.

If you have Internet access, visit the Occupational Safety and Health Standards Board by going to: **<http://www.dir.ca.gov/oshsb>** and follow the links to the Standards Board. This information is updated monthly. The Standards Board's e-mail address is: **oshsb@dir.ca.gov**.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

Marley Hart, Executive Officer