

Subchapter 7. General Industry Safety Orders
Group 16. Control of Hazardous Substances
Article 109. Hazardous Substances and Processes

§5199. Aerosol Transmissible Diseases.

Contents

- (a) Scope and Application**
- (b) Definitions**
- (c) Referring Employers**
- (d) Aerosol Transmissible Diseases Exposure Control Plan**
- (e) Engineering and Work Practice Controls and Personal Protective Equipment**
- (f) Laboratories**
- (g) Respiratory Protection**
- (h) Medical Services**
- (i) Training**
- (j) Recordkeeping**

(a) Scope and Application.

- (1) Scope. This section applies to work in the following facilities, service categories, or operations:
 - (A) Each of the following health care facilities, services, or operations:
 - 1. Hospitals
 - 2. Skilled nursing facilities
 - 3. Clinics, medical offices, and other outpatient medical facilities
 - 4. Facilities where high hazard procedures, as defined in subsection (b), are performed
 - 5. Home health care
 - 6. Long term health care facilities and hospices
 - 7. Medical outreach services
 - 8. Paramedic and emergency medical services including these services when provided by firefighters and other emergency responders
 - 9. Medical transport
 - (B) Facilities, services, or operations that are designated to receive persons arriving from the scene of an uncontrolled release of hazardous substances involving biological agents, as defined in Section 5192, Hazardous Waste Operations and Emergency Response, of these orders.
 - (C) Police services, provided during transport or detention of persons reasonably anticipated to be cases or suspected cases of aerosol transmissible diseases; and police services provided in conjunction with health care or public health operations.
 - (D) Public health services, such as communicable disease contact tracing or screening programs that are reasonably anticipated to be provided to cases or suspected cases of aerosol transmissible diseases, and public health services rendered in health care facilities or in connection with the provision of health care.

- (E) The following facilities, services or operations that are identified as being at increased risk for transmission of aerosol transmissible disease (ATD) infection:
 - 1. Correctional facilities and other facilities that house inmates or detainees
 - 2. Homeless shelters
 - 3. Drug treatment programs
- (F) Facilities, services or operations that perform aerosol-generating procedures on cadavers such as pathology laboratories, medical examiners' facilities, coroners' offices, and mortuaries.
- (G) Laboratories that perform procedures with materials that contain or are reasonably anticipated to contain aerosol transmissible pathogens – laboratory (ATP-L) or zoonotic aerosol transmissible pathogens as defined in Section 5199.1.
- (H) Any other facility, service or operation that has been determined in writing by the Chief of the Division of Occupational Safety and Health through the issuance of an Order to Take Special Action, in accordance with Section 332.3 of these orders, to require application of this standard as a measure to protect employees.
- (I) Maintenance, renovation, service, or repair operations involving air handling systems or equipment or building areas that may reasonably be anticipated to be contaminated with aerosol transmissible pathogens (ATPs) or ATPs-L, including:
 - 1. Areas in which Airborne Infectious Disease (AirID) cases and suspected cases are treated or housed.
 - 2. Air handling systems that serve airborne infection isolation rooms or areas (AIIRs).
 - 3. Equipment such as laboratory hoods, biosafety cabinets, and ventilation systems that are used to contain infectious aerosols.

NOTES to subsection (a)(1):

- (1) Employers who conduct hazardous waste and emergency response operations, as defined in Section 5192 of these orders, shall also comply with the applicable requirements of Section 5192.
- (2) Occupational exposure to animals infected by aerosol transmissible pathogens which cause human disease are regulated by Section 5199.1 of these orders.
- (2) The following are not covered by this standard:
 - (A) Outpatient dental clinics or offices are not required to comply with this standard if they meet all of the following conditions:
 - 1. Dental procedures are not performed on patients identified to them as ATD cases or suspected ATD cases.
 - 2. The Injury and Illness Prevention Program includes a written procedure for screening patients for ATDs that is consistent with current guidelines issued by the Centers for Disease Control and Prevention (CDC) for infection control in dental settings, and this procedure is followed before performing any dental procedure on a patient to determine whether the patient may present an ATD exposure risk.
 - 3. Employees have been trained in the screening procedure in accordance with Section 3203.
 - 4. Aerosol generating dental procedures are not performed on a patient identified through the screening procedure as presenting a possible ATD exposure risk unless a licensed physician determines that the patient does not currently have an ATD.

(B) Outpatient medical specialty practices whose policy is not to diagnose or treat ATDs are not required to comply with this standard if they meet all of the following conditions:

1. The medical specialty practice does not perform aerosol-generating procedures on cases or suspected cases of ATD;
2. The Injury and Illness Prevention Program includes written screening procedures to identify potential ATD cases, and then refer those patients for further evaluation to an appropriate medical provider;
3. Employees have been trained in the screening procedure in accordance with Section 3203.

(3) Application.

(A) Referring Employers. A referring employer is required only to comply with the provisions of subsection (a), subsection (c), including all parts of Section 5199 referred to in subsection (c), and subsection (j). To be a referring employer, the operation, service or facility must conform to each of the following, as indicated:

1. Screen persons for airborne infectious diseases (AirID).
2. Refer any person identified as a case or suspected case of AirID.
3. Not intend to provide further medical services to AirID cases and suspected cases beyond first aid, initial treatment or screening and referral as described in subsections (a)(3)(A)1 and (a)(3)(A)2 immediately above.
4. Not provide transport, housing, or airborne infection isolation (as defined in subsection (b)) to any person identified as an AirID case or suspected case, unless the transport provided is only non-medical transport in the course of a referral.

(B) Laboratories. A laboratory facility or operation in which employees do not have direct contact with cases or suspected cases of ATD or with potentially infected cadavers is required to comply only with the provisions of subsection (a), subsection (f), all provisions of Section 5199 referred to in subsection (f), subsection (i) and subsection (j).

(C) Work settings, operations, or facilities included within the scope of this standard that are not identified in subsections (a)(3)(A) or (a)(3)(B) shall comply with subsections (a), (d), (e), (f), (g), (h), (i), and (j).

(4) The employer shall provide all safeguards required by this section, including provision of personal protective equipment, respirators, training, and medical services, at no cost to the employee, at a reasonable time and place for the employee, and during the employee's working hours.

(b) Definitions.

Accredited laboratory. A laboratory that is licensed by the CDPH pursuant to Title 17 of the California Code of Regulations (CCR), or which has received a certification of competence based on participation in a quality assurance program administered by a governmental or private organization that tests and certifies laboratories.

Aerosol transmissible disease (ATD) or aerosol transmissible pathogen (ATP). A disease or pathogen for which droplet or airborne precautions are required, as listed in Appendix A.

Aerosol transmissible pathogen -- laboratory (ATP-L). A pathogen that meets one of the following criteria: (1) the pathogen appears on the list in Appendix D, (2) the Biosafety in Microbiological and Biomedical Laboratories (BMBL) recommends biosafety level 3 or above

for the pathogen, (3) the biological safety officer recommends biosafety level 3 or above for the pathogen, or (4) the pathogen is a novel or unknown pathogen.

Airborne infection isolation (AII). Infection control procedures as described in Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings. These procedures are designed to reduce the risk of transmission of airborne infectious pathogens, and apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by the airborne route.

Airborne infection isolation room or area (AIIR). A room, area, booth, tent, or other enclosure that is maintained at negative pressure to adjacent areas in order to control the spread of aerosolized *M. tuberculosis* and other airborne infectious pathogens and that meets the requirements stated in subsection (e)(5)(D) of this standard.

Airborne infectious disease (AirID). Either: (1) an aerosol transmissible disease transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the disease agent for which AII is recommended by the CDC or CDPH, as listed in Appendix A, or (2) the disease process caused by a novel or unknown pathogen for which there is no evidence to rule out with reasonable certainty the possibility that the pathogen is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the novel or unknown pathogen.

Airborne infectious pathogen (AirIP). Either: (1) an aerosol transmissible pathogen transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the infectious agent, and for which the CDC or CDPH recommends AII, as listed in Appendix A, or (2) a novel or unknown pathogen for which there is no evidence to rule out with reasonable certainty the possibility that it is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the novel or unknown pathogen.

Biological safety officer(s). A person who is qualified by training and/or experience to evaluate hazards associated with laboratory procedures involving ATPs-L, who is knowledgeable about the facility biosafety plan, and who is authorized by the employer to establish and implement effective control measures for laboratory biological hazards.

Biosafety level 3. Compliance with the criteria for laboratory practices, safety equipment, and facility design and construction recommended by the CDC in Biosafety in Microbiological and Biomedical Laboratories for laboratories in which work is done with indigenous or exotic agents with a potential for aerosol transmission and which may cause serious or potentially lethal infection.

Biosafety in Microbiological and Biomedical Laboratories (BMBL). Biosafety in Microbiological and Biomedical Laboratories, Fifth Edition, CDC and National Institutes for Health, 2007, which is hereby incorporated by reference for the purpose of establishing biosafety requirements in laboratories.

CDC. United States Centers for Disease Control and Prevention.

CDPH. California Department of Public Health and its predecessor, the California Department of Health Services (CDHS).

Case. Either of the following:

- (1) A person who has been diagnosed by a health care provider who is lawfully authorized to diagnose, using clinical judgment or laboratory evidence, to have a particular disease or condition.

- (2) A person who is considered a case of a disease or condition that satisfies the most recent communicable disease surveillance case definitions established by the CDC and published in the Morbidity and Mortality Weekly Report (MMWR) or its supplements.

Chief. The Chief of the Division of Occupational Safety and Health of the Department of Industrial Relations, or his or her designated representative.

CTCA. The California Tuberculosis Controllers Association.

Droplet precautions. Infection control procedures as described in Guideline for Isolation Precautions designed to reduce the risk of transmission of infectious agents through contact of the conjunctivae or the mucous membranes of the nose or mouth of a susceptible person with large-particle droplets (larger than 5 µm in size) containing microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism.

Drug treatment program. A program that is (A) licensed pursuant to Chapter 7.5 (commencing with Section 11834.01), Part 2, Division 10.5 of the Health and Safety Code; or Chapter 1 (commencing with Section 11876), Part 3, Article 3, Division 10.5 of the Health and Safety Code; or (B) certified as a substance abuse clinic or satellite clinic pursuant to Section 51200, Title 22, CCR, and which has submitted claims for Medi-Cal reimbursement pursuant to Section 51490.1, Title 22, CCR, within the last two calendar years or (C) certified pursuant to Section 11831.5 of the Health and Safety Code.

Emergency medical services. Medical care provided pursuant to Title 22, Division 9, by employees who are certified EMT-1, certified EMT-II, or licensed paramedic personnel to the sick and injured at the scene of an emergency, during transport, or during interfacility transfer.

Epidemiology and Prevention of Vaccine-Preventable Diseases. Epidemiology and Prevention of Vaccine-Preventable Diseases. Centers for Disease Control and Prevention, Atkinson W, Hamborsky J, McIntyre L, Wolfe S, eds. 10th ed. 2nd printing, including chapters from the 9th edition on Anthrax and Smallpox, Washington DC: Public Health Foundation, 2008, which is hereby incorporated by reference.

Exposure incident. An event in which all of the following have occurred: (1) An employee has been exposed to an individual who is a case or suspected case of a reportable ATD, or to a work area or to equipment that is reasonably expected to contain ATPs associated with a reportable ATD; and (2) The exposure occurred without the benefit of applicable exposure controls required by this section, and (3) It reasonably appears from the circumstances of the exposure that transmission of disease is sufficiently likely to require medical evaluation.

Exposure incident (laboratory). A significant exposure to an aerosol containing an ATP-L, without the benefit of applicable exposure control measures required by this section.

Field operation. An operation conducted by employees that is outside of the employer's fixed establishment, such as paramedic and emergency medical services or transport, law enforcement, home health care, and public health.

Guideline for Isolation Precautions. The Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, June 2007, CDC, which is hereby incorporated by reference for the sole purpose of establishing requirements for droplet and contact precautions.

Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings. The Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, December 2005, CDC, which is hereby incorporated by reference for the sole purpose of establishing requirements for airborne infection isolation.

Health care provider. A physician and surgeon, a veterinarian, a podiatrist, a nurse practitioner, a physician assistant, a registered nurse, a nurse midwife, a school nurse, an infection control practitioner, a medical examiner, a coroner, or a dentist.

Health care worker. A person who works in a health care facility, service or operation, or who has occupational exposure in a public health service described in subsection (a)(1)(D).

High hazard procedures. Procedures performed on a person who is a case or suspected case of an aerosol transmissible disease or on a specimen suspected of containing an ATP-L, in which the potential for being exposed to aerosol transmissible pathogens is increased due to the reasonably anticipated generation of aerosolized pathogens. Such procedures include, but are not limited to, sputum induction, bronchoscopy, aerosolized administration of pentamidine or other medications, and pulmonary function testing. High Hazard Procedures also include, but are not limited to, autopsy, clinical, surgical and laboratory procedures that may aerosolize pathogens.

Individually identifiable medical information. Medical information that includes or contains any element of personal identifying information sufficient to allow identification of the individual, such as the patient's name, address, electronic mail address, telephone number, or social security number, or other information that, alone or in combination with other publicly available information, reveals the individual's identity.

Infection control PLHCP. A PLHCP who is knowledgeable about infection control practices, including routes of transmission, isolation precautions and the investigation of exposure incidents.

Initial treatment. Treatment provided at the time of the first contact a health care provider has with a person who is potentially an AirID case or suspected case. Initial treatment does not include high hazard procedures.

Laboratory. A facility or operation in a facility where the manipulation of specimens or microorganisms is performed for the purpose of diagnosing disease or identifying disease agents, conducting research or experimentation on microorganisms, replicating microorganisms for distribution or related support activities for these processes.

Latent TB infection (LTBI). Infection with *M. tuberculosis* in which bacteria are present in the body, but are inactive. Persons who have LTBI but who do not have TB disease are asymptomatic, do not feel sick and cannot spread TB to other persons. They typically react positively to TB tests.

Local health officer. The health officer for the local jurisdiction responsible for receiving and/or sending reports of communicable diseases, as defined in Title 17, CCR.

NOTE: Title 17, Section 2500 requires that reports be made to the local health officer for the jurisdiction where the patient resides.

M. tuberculosis. *Mycobacterium tuberculosis* complex, which includes *M. tuberculosis*, *M. bovis*, *M. africanum*, and *M. microti*. *M. tuberculosis* is the scientific name of the group of bacteria that cause tuberculosis.

Medical specialty practice. A medical practice other than primary care, general practice, or family medicine.

Negative pressure. A relative air pressure difference between two areas. The pressure in a containment room or area that is under negative pressure is lower than adjacent areas, which keeps air from flowing out of the containment facility and into adjacent rooms or areas.

NIOSH. The Director of the National Institute for Occupational Safety and Health, CDC, or his or her designated representative.

Non-medical transport. The transportation by employees other than health care providers or emergency medical personnel during which no medical services are reasonably anticipated to be provided.

Novel or unknown ATP. A pathogen capable of causing serious human disease meeting the following criteria:

- (1) There is credible evidence that the pathogen is transmissible to humans by aerosols; and
- (2) The disease agent is:
 - (a) A newly recognized pathogen, or
 - (b) A newly recognized variant of a known pathogen and there is reason to believe that the variant differs significantly from the known pathogen in virulence or transmissibility, or
 - (c) A recognized pathogen that has been recently introduced into the human population, or
 - (d) A not yet identified pathogen.

NOTE: Variants of the human influenza virus that typically occur from season to season are not considered novel or unknown ATPs if they do not differ significantly in virulence or transmissibility from existing seasonal variants. Pandemic influenza strains that have not been fully characterized are novel pathogens.

Occupational exposure. Exposure from work activity or working conditions that is reasonably anticipated to create an elevated risk of contracting any disease caused by ATPs or ATPs-L if protective measures are not in place. In this context, “elevated” means higher than what is considered ordinary for employees having direct contact with the general public outside of the facilities, service categories and operations listed in subsection (a)(1) of this standard.

Occupational exposure is presumed to exist to some extent in each of the facilities, services and operations listed in subsection (a)(1)(A) through (a)(1)(I). Whether a particular employee has occupational exposure depends on the tasks, activities, and environment of the employee, and therefore, some employees of a covered employer may have no occupational exposure. For example, occupational exposure typically does not exist where a hospital employee works only in an office environment separated from patient care facilities, or works only in other areas separate from those where the risk of ATD transmission, whether from patients or contaminated items, would be elevated without protective measures. It is the task of employers covered by this standard to identify those employees who have occupational exposure so that appropriate protective measures can be implemented to protect them as required. Employee activities that involve having contact with, or being within exposure range of cases or suspected cases of ATD, are always considered to cause occupational exposure. Similarly, employee activities that involve contact with, or routinely being within exposure range of, populations served by facilities identified in subsection (a)(1)(E) are considered to cause occupational exposure. Employees working in laboratory areas in which ATPs-L are handled or reasonably anticipated to be present are also considered to have occupational exposure.

Physician or other licensed health care professional (PLHCP) means an individual whose legally permitted scope or practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by this section.

Public health guidelines. (1) In regards to tuberculosis, applicable guidelines published by the CTCA and/or CDPH as follows, which are hereby incorporated by reference:

- (A) Guidelines for Tuberculosis (TB) Screening and Treatment of Patients with Chronic Kidney Disease (CKD), Patients Receiving Hemodialysis (HD), Patients Receiving Peritoneal Dialysis (PD), Patients Undergoing Renal Transplantation and Employees of Dialysis Facilities, May 18, 2007.
- (B) Guidelines for the Treatment of Active Tuberculosis Disease, April 15, 2003 including related material: Summary of Differences Between 2003 California and National Tuberculosis Treatment Guidelines, 2004, Amendment to Joint CDHS/CTCA Guidelines for the Treatment of Active Tuberculosis Disease, May 12, 2006, Appendix 3 - Algorithm for MDR-TB Cases and Hospital Discharge, May 12, 2006.
- (C) Targeted Testing and Treatment of Latent Tuberculosis Infection in Adults and Children, May 12, 2006.
- (D) California Tuberculosis Controllers Association Position Statement: The Utilization of QuantiFERON – TB Gold in California, May 18, 2007.
- (E) Guidelines for Mycobacteriology Services in California, April 11, 1997.
- (F) Guidelines for the Placement or Return of Tuberculosis Patients into High Risk Housing, Work, Correctional, or In-Patient Settings, April 11, 1997.
- (G) Contact Investigation Guidelines, November 12, 1998.
- (H) Source Case Investigation Guidelines, April 27, 2001.
- (I) Guidelines on Prevention and Control of Tuberculosis in California Long-Term Health Care Facilities, October 2005.
- (J) Guidelines for Reporting Tuberculosis Suspects and Cases in California, October 1997.
- (K) CTCA recommendations for serial TB testing of Health Care Workers (CA Licensing and Certification), September 23, 2008.
- (2) In regards to vaccine-preventable diseases, the publication cited in the definition of Epidemiology and Prevention of Vaccine-Preventable Diseases.
- (3) In regards to any disease or condition not addressed by the above guidelines, recommendations made by the CDPH or the local health officer pursuant to authority granted under the Health and Safety Code and/or Title 17, California Code of Regulations.

Referral. The directing or transferring of a possible ATD case to another facility, service or operation for the purposes of transport, diagnosis, treatment, isolation, housing or care.

Referring employer. Any employer that operates a facility, service, or operation in which there is occupational exposure and which refers AirID cases and suspected cases to other facilities. Referring facilities, services and operations do not provide diagnosis, treatment, transport, housing, isolation or management to persons requiring AII. General acute care hospitals are not referring employers. Law enforcement, corrections, public health, and other operations that provide only non-medical transport for referred cases are considered referring employers if they do not provide diagnosis, treatment, housing, isolation or management of referred cases.

Reportable aerosol transmissible disease (RATD). A disease or condition which a health care provider is required to report to the local health officer, in accordance with Title 17 CCR, Division 1, Chapter 4, and which meets the definition of an aerosol transmissible disease (ATD).

Respirator. A device which has met the requirements of 42 CFR Part 84, has been designed to protect the wearer from inhalation of harmful atmospheres, and has been approved by NIOSH for the purpose for which it is used.

Respirator user. An employee who in the scope of their current job may be assigned to tasks which may require the use of a respirator, in accordance with subsection (g).

Respiratory Hygiene/Cough Etiquette in Health Care Settings. Respiratory Hygiene/Cough Etiquette in Health Care Settings, CDC, November 4, 2004, which is hereby incorporated by reference for the sole purpose of establishing requirements for source control procedures.

Screening (health care provider). The initial assessment of persons who are potentially AirID or ATD cases by a health care provider in order to determine whether they need airborne infection isolation or need to be referred for further medical evaluation or treatment to make that determination. Screening does not include high hazard procedures.

Screening (non health care provider). The identification of potential ATD cases through readily observable signs and the self-report of patients or clients. Screening does not include high hazard procedures.

Significant exposure. An exposure to a source of ATPs or ATPs-L in which the circumstances of the exposure make the transmission of a disease sufficiently likely that the employee requires further evaluation by a PLHCP.

Source control measures. The use of procedures, engineering controls, and other devices or materials to minimize the spread of airborne particles and droplets from an individual who has or exhibits signs or symptoms of having an ATD, such as persistent coughing.

Surge. A rapid expansion beyond normal services to meet the increased demand for qualified personnel, medical care, equipment, and public health services in the event of an epidemic, public health emergency, or disaster.

Susceptible person. A person who is at risk of acquiring an infection due to a lack of immunity as determined by a PLHCP in accordance with applicable public health guidelines.

Suspected case. Either of the following:

- (1) A person whom a health care provider believes, after weighing signs, symptoms, and/or laboratory evidence, to probably have a particular disease or condition listed in Appendix A.
- (2) A person who is considered a probable case, or an epidemiologically-linked case, or who has supportive laboratory findings under the most recent communicable disease surveillance case definition established by CDC and published in the Morbidity and Mortality Weekly Report (MMWR) or its supplements as applied to a particular disease or condition listed in Appendix A.

TB conversion. A change from negative to positive as indicated by TB test results, based upon current CDC or CDPH guidelines for interpretation of the TB test

Test for tuberculosis infection (TB test). Any test, including the tuberculin skin test and blood assays for *M. Tuberculosis* (BAMT) such as interferon gamma release assays (IGRAs) which:

(1) has been approved by the Food and Drug Administration for the purposes of detecting tuberculosis infection, and (2) is recommended by the CDC for testing for TB infection in the environment in which it is used, and (3) is administered, performed, analyzed and evaluated in accordance with those approvals and guidelines.

NOTE: Where surveillance for LTBI is required by Title 22, CCR, the TB test must be approved for this use by the CDPH.

Tuberculosis (TB). A disease caused by *M. tuberculosis*.

UVGI. Ultraviolet germicidal irradiation.

(c) Referring Employers. In facilities, services, or operations in which there is occupational exposure and which meet the criteria specified by (a)(3)(A), employers are only required to comply with the following provisions:

- (1) The employer shall designate a person as the administrator who will be responsible for the establishment, implementation and maintenance of effective written infection control procedures to control the risk of transmission of aerosol transmissible diseases. The administrator shall have the authority to perform this function and shall be knowledgeable in infection control principles as they apply specifically to the facility, service or operation. The administrator shall also identify in writing the job categories in which employees have occupational exposure to ATDs. When the administrator is not on site, there shall be a designated person with full authority to act on his or her behalf. The infection control procedures shall include procedures for the cleaning and disinfection of work areas, vehicles, and equipment that may become contaminated with ATPs and pose an infection risk to employees. The written procedures shall be available at the worksite.
- (2) The employer shall establish, implement, and maintain effective written source control procedures. For fixed health care and correctional facilities, and in other facilities, services, and operations to the extent reasonably practicable, these procedures shall incorporate the recommendations contained in the Respiratory Hygiene/Cough Etiquette in Health Care Settings. These procedures shall include the method of informing persons with whom employees will have contact of the employer's source control measures.
- (3) The employer shall establish, implement, and maintain effective written procedures for the screening and referral of cases and suspected cases of AirIDs to appropriate facilities.
 - (A) Transfers shall occur within 5 hours of the identification of the case or suspected case, unless:
 - (1) the initial encounter with the case or suspected case occurs after 3:30 p.m. and prior to 7 a.m., in which event the employer shall ensure that transfer occurs no later than 11:00 a.m.; or
 - (2) the employer has contacted the local health officer, determined that there is no facility that can provide appropriate AII, and complied with all of the conditions in (e)(5)(B)2.; or
 - (3) the case meets the conditions of either of the exceptions to subsection (e)(5)(B).
 - (B) When screening is provided by persons who are not health care providers, the employer shall meet the requirements of this section by establishing criteria and procedures for referral of persons to a health care provider for further evaluation within the timeframes in subsection (c)(3)(A). Referrals shall be provided to persons who do any of the following:
 1. Have a cough for more than three weeks that is not explained by non-infectious conditions.
 2. Exhibit signs and symptoms of a flu-like illness during March through October, the months outside of the typical period for seasonal influenza, or exhibit these signs and symptoms for a period longer than two weeks at any time during the year. These signs and symptoms generally include combinations of the following: coughing and other respiratory symptoms, fever, sweating, chills, muscle aches, weakness and malaise.
 3. State that they have a transmissible respiratory disease, excluding the common cold and seasonal influenza.

4. State that they have been exposed to an infectious ATD case, other than seasonal influenza.

NOTES to subsection (c)(3):

1. Seasonal influenza does not require referral.
2. Appendix F contains sample criteria for screening that may be adopted by employers in non-medical settings for the purpose of meeting the requirements of this subsection.

(4) The employer shall establish, implement, and maintain effective written procedures to communicate with employees, other employers, and the local health officer regarding the suspected or diagnosed infectious disease status of referred patients. These shall include procedures to receive information from the facility to which patients were referred and to provide necessary infection control information to employees who were exposed to the referred person.

(5) The employer shall establish, implement and maintain effective written procedures to reduce the risk of transmission of aerosol transmissible disease, to the extent feasible, during the period the person requiring referral is in the facility or is in contact with employees. In addition to source control measures, these procedures shall include, to the extent feasible:

- (A) placement of the person requiring referral in a separate room or area;
- (B) provision of separate ventilation or filtration in the room or area; and
- (C) employee use of respiratory protection when entering the room or area in which the person requiring referral is located, if that person is not compliant with source control measures. Respirator use shall meet the requirements of subsection (g) and Section 5144, Respiratory Protection, of these orders.

EXCEPTION to subsection (c)(5)(C): Law enforcement or corrections personnel who transport a person requiring referral in a vehicle need not use respiratory protection if all of the following conditions are met:

- i. A solid partition separates the passenger area from the area where employees are located;
- ii. The employer implements written procedures that specify the conditions of operation, including the operation of windows and fans;
- iii. The employer tests (e.g., by the use of smoke tubes) the airflow in a representative vehicle (of the same model, year of manufacture, and partition design) under the specified conditions of operation, and finds that there is no detectable airflow from the passenger compartment to the employee area;
- iv. The employer records the results of the tests and maintains the results in accordance with subsection (j)(3)(F); and
- v. The person performing the test is knowledgeable about the assessment of ventilation systems.

(6) The employer shall establish a system of medical services for employees which meets the following requirements:

- (A) The employer shall make available to all health care workers with occupational exposure all vaccinations recommended by the CDPH as listed in Appendix E in accordance with subsection (h). These vaccinations shall be provided by a PLHCP at a reasonable time and place for the employee.

- (B) The employer shall develop, implement, and maintain effective written procedures for exposure incidents in accordance with subsections (h)(6) through (h)(9).
 - (C) The employer shall establish, implement, and maintain an effective surveillance program for LTBI in accordance with subsections (h)(3) and (h)(4).
 - (D) The employer shall establish, implement, and maintain effective procedures for providing vaccinations against seasonal influenza to all employees with occupational exposure, in accordance with subsection (h)(10).
EXCEPTION to subsection (c)(6)(D): Seasonal influenza vaccine shall be provided during the period designated by the CDC for administration and need not be provided outside of those periods.
- (7) Employers shall ensure that all employees with occupational exposure participate in a training program. Training shall be provided at the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter. Additional training shall be provided when there are changes in the workplace or when there are changes in procedures that could affect worker exposure to ATPs. The person conducting the training shall be knowledgeable in the subject matter covered by the training program as it relates to the workplace. Training material appropriate in content and vocabulary to the educational level, literacy, and language of employees shall be used. This training shall include:
- (A) A general explanation of ATDs including the signs and symptoms that require further medical evaluation;
 - (B) Screening methods and criteria for persons who require referral;
 - (C) The employer's source control measures and how these measures will be communicated to persons the employees contact;
 - (D) The employer's procedures for making referrals in accordance with subsection (c)(3);
 - (E) The employer's procedures for temporary risk reduction measures prior to transfer;
 - (F) Training in accordance with subsection (g) and Section 5144 of these orders, when respiratory protection is used;
 - (G) The employer's medical services procedures in accordance with subsection (h), the methods of reporting exposure incidents, and the employer's procedures for providing employees with post-exposure evaluation;
 - (H) Information on vaccines the employer will make available, including the seasonal influenza vaccine. For each vaccine, this information shall include the efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
 - (I) How employees can access the employer's written procedures and how employees can participate in reviewing the effectiveness of the employer's procedures in accordance with subsection (c)(8); and
 - (J) An opportunity for interactive questions and answers with a person who is knowledgeable in the subject matter as it relates to the workplace that the training addresses and who is also knowledgeable in the employer's infection control procedures. Training not given in person shall provide for interactive questions to be answered within 24 hours by a knowledgeable person.

- (8) The employer shall ensure that the infection control procedures are reviewed at least annually by the administrator and by employees regarding the effectiveness of the program in their respective work areas, and that deficiencies found are corrected.
- (9) The employer shall establish and maintain training records, vaccination records, records of exposure incidents, and records of inspection, testing, and maintenance of non-disposable engineering controls, in accordance with subsection (j). If the employer utilizes respirators, the employer shall maintain records of implementation of the Respiratory Protection Program in accordance with Section 5144, Respiratory Protection, of these orders.

(d) Aerosol Transmissible Diseases Exposure Control Plan.

- (1) The employer shall establish, implement, and maintain an effective, written ATD Exposure Control Plan (Plan) which is specific to the work place or operation(s), and which contains all of the elements in subsection (d)(2).
EXCEPTION to subsection (d)(1): Employers with laboratory operations in which employees do not have direct patient contact may establish, implement and maintain an effective, written Biosafety Plan meeting the requirements of subsection (f) in lieu of an Exposure Control Plan for those operations.
- (2) The Plan shall contain all of the following elements:
 - (A) The name(s) or title(s) of the person(s) responsible for administering the Plan. This person shall be knowledgeable in infection control principles and practices as they apply to the facility, service or operation.
 - (B) A list of all job classifications in which employees have occupational exposure.
 - (C) A list of all high hazard procedures performed in the facility, service or operation, and the job classifications and operations in which employees are exposed to those procedures.
 - (D) A list of all assignments or tasks requiring personal or respiratory protection.
 - (E) The methods of implementation of subsections (e), (g), (h), (i) and (j) as they apply to that facility, service or work operation. Specific control measures shall be listed for each operation or work area in which occupational exposure occurs. These measures shall include applicable engineering and work practice controls, cleaning and decontamination procedures, and personal protective equipment and respiratory protection. In establishments where the Plan pertains to laboratory operations, it also shall contain the methods of implementation for subsection (f), unless those operations are included in a Biosafety Plan.
 - (F) A description of the source control measures to be implemented in the facility, service or operation, and the method of informing people entering the work setting of the source control measures.
 - (G) The procedures the employer will use to identify, temporarily isolate, and refer or transfer AirID cases or suspected cases to AII rooms, areas or facilities. These procedures shall include the methods the employer will use to limit employee exposure to these persons during periods when they are not in airborne infection isolation rooms or areas. These procedures shall also include the methods the employer will use to document medical decisions not to transfer patients in need of AII in accordance with subsection (e)(5)(B).
 - (H) The procedures the employer will use to provide medical services, including recommended vaccinations and follow-up, as required in subsection (h). This

shall include the procedures the employer will use to document the lack of availability of a recommended vaccine.

- (I) The procedures for employees and supervisors to follow in the event of an exposure incident, including how the employer will determine which employees had a significant exposure, in accordance with subsections (h)(6) through (h)(9).
 - (J) The procedures the employer will use to evaluate each exposure incident, to determine the cause, and to revise existing procedures to prevent future incidents.
 - (K) The procedures the employer will use to communicate with its employees and other employers regarding the suspected or confirmed infectious disease status of persons to whom employees are exposed in the course of their duties, in accordance with subsection (h).
 - (L) The procedures the employer will use to communicate with other employers regarding exposure incidents, including procedures for providing or receiving notification to and from health care providers about the disease status of referred or transferred patients, in accordance with subsection (h).
 - (M) The procedures the employer will use to ensure that there is an adequate supply of personal protective equipment and other equipment necessary to minimize employee exposure to ATPs, in normal operations and in foreseeable emergencies.
 - (N) The procedures the employer will use to provide initial and annual training in accordance with subsection (i) to employees in job categories identified in subsection (d)(2)(B).
 - (O) The procedures the employer will use for recordkeeping, in accordance with subsection (j).
 - (P) An effective procedure for obtaining the active involvement of employees in reviewing and updating the exposure control plan with respect to the procedures performed in their respective work areas or departments in accordance with subsection (d)(3).
 - (Q) Surge procedures. Employers of employees who are designated to provide services in surge conditions, and employers of employees who are designated to provide services to persons who have been contaminated as the result of a release of a biological agent as described in subsection (a)(1)(B), shall include procedures for these activities in the plan. The plan shall include work practices, decontamination facilities, and appropriate personal protective equipment and respiratory protection for such events. The procedures shall include how respiratory and personal protective equipment will be stockpiled, accessed or procured, and how the facility or operation will interact with the local and regional emergency plan.
- (3) The ATD Plan shall be reviewed at least annually by the program administrator, and by employees regarding the effectiveness of the program in their respective work areas. Deficiencies found shall be corrected. The review(s) shall be documented in writing, in accordance with subsection (j)(3)(A).
 - (4) The Plan shall be made available to employees, employee representatives, the Chief and NIOSH for examination and copying, in accordance with subsection (j)(4).
- (e) Engineering and Work Practice Controls, and Personal Protective Equipment.**

- (1) General. Employers shall use feasible engineering and work practice controls to minimize employee exposures to ATPs. Where engineering and work practice controls do not provide sufficient protection (e.g., when an employee enters an AII room or area) the employer shall provide, and ensure that employees use, personal protective equipment, and shall provide respiratory protection in accordance with subsection (g) to control exposures to AirIPs.
 - (A) Work practices shall be implemented to prevent or minimize employee exposures to airborne, droplet, and contact transmission of aerosol transmissible pathogens (ATP), in accordance with Appendix A, and where not addressed by Appendix A, in accordance with the Guideline for Isolation Precautions. Droplet and contact precautions shall be in accordance with Guideline for Isolation Precautions. Airborne precautions shall be in accordance with Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings.

NOTE: These work practices may include, but are not limited to; handwashing and gloving procedures; the use of anterooms; and cleaning and disinfecting contaminated surfaces, articles and linens.
 - (B) Each employer shall implement written source control procedures. For fixed health care and correctional facilities, and in field operations to the extent that it is reasonably practicable, these procedures shall incorporate the recommendations contained in the Respiratory Hygiene/Cough Etiquette in Health Care Settings. The procedures shall include methods to inform individuals entering the facility, being transported by employees, or otherwise in close contact with employees, of the source control practices implemented by the employer.
 - (C) Employers shall develop and implement engineering and work practice controls to protect employees who operate, use, or maintain vehicles that transport persons who are ATD cases or suspected cases. The employer shall give consideration to implementing barriers and air handling systems, where feasible. Employers shall document the results and the basis for the results of their consideration process. These control measures shall be included in the annual review of the Plan, in accordance with subsection (d)(3).
- (2) The employer shall develop and implement effective written decontamination procedures, including appropriate engineering controls, for the cleaning and decontamination of work areas, vehicles, personal protective equipment, and other equipment.
- (3) The employer shall provide information about infectious disease hazards to any contractor who provides temporary or contract employees who may be reasonably anticipated to have occupational exposure so that the contractors can institute precautions to protect their employees.
- (4) Engineering controls shall be used in workplaces that admit, house, or provide medical services to AirID cases or suspected cases, except in settings where home health care or home-based hospice care is being provided.
- (5) AirID cases or suspected cases shall be identified, and except in field operations and in settings where home health care or home-based hospice care is being provided, these individuals shall be:

- (A) Provided with disposable tissues and hand hygiene materials and masked or placed in such a manner that contact with employees who are not wearing respiratory protection is eliminated or minimized until transfer or placement in an AII room or area can be accomplished and;
- (B) Placed in an AII room or area or transferred to a facility with AII rooms or areas. The employer shall ensure that this placement or transfer is effected in a timely manner.
 - 1. Transfers within facility. Transfers to airborne infection isolation rooms or areas within the facility shall occur within 5 hours of identification. If there is no AII room or area available within this time, the employer shall transfer the individual to another suitable facility in accordance with subsection (e)(5)(B)2.
 - 2. Transfers to other facilities. Transfers to other facilities shall occur within 5 hours of identification, unless the employer documents, at the end of the 5-hour period, and at least every 24 hours thereafter, each of the following:
 - a. The employer has contacted the local health officer.
 - b. There is no AII room or area available within that jurisdiction.
 - c. Reasonable efforts have been made to contact establishments outside of that jurisdiction, as provided in the Plan.
 - d. All applicable measures recommended by the local health officer or the Infection Control PLHCP have been implemented.
 - e. All employees who enter the room or area housing the individual are provided with, and use, appropriate personal protective equipment and respiratory protection in accordance with subsection (g) and Section 5144, Respiratory Protection of these orders.

EXCEPTIONS to subsection (e)(5)(B):

- (1) Where the treating physician determines that transfer would be detrimental to a patient's condition, the patient need not be transferred. In that case the facility shall ensure that employees use respiratory protection when entering the room or area housing the individual. The patient's condition shall be reviewed at least every 24 hours to determine if transfer is safe, and the determination shall be recorded as described in the Plan in accordance with (d)(2)(G). Once transfer is determined to be safe, transfer must be made within the time period set forth in subsection (e)(5)(B).
 - (2) Where it is not feasible to provide AII rooms or areas to individuals suspected or confirmed to be infected with or carriers of novel or unknown ATPs, the employer shall provide other effective control measures to reduce the risk of transmission to employees, which shall include the use of respiratory protection in accordance with subsection (g) and Section 5144, Respiratory Protection of these orders.
- (C) High-hazard procedures shall be conducted in AII rooms or areas, such as a ventilated booth or tent. Persons not performing the procedures shall be excluded from the area, unless they use the respiratory and personal protective equipment required for employees performing these procedures.

EXCEPTION to subsection (e)(5)(C): Where no AII room or area is available and the treating physician determines that it would be detrimental to the patient's condition to delay performing the procedure, high hazard procedures may be conducted in other

areas. In that case, employees working in the room or area where the procedure is performed shall use respiratory protection, in accordance with subsection (g) and Section 5144, Respiratory Protection of these orders, and shall use all necessary personal protective equipment.

(D) Specific requirements for AII rooms and areas.

1. Hospital isolation rooms constructed in conformance with Title 24, California Code of Regulations, Section 417, et seq., and which are maintained to meet those requirements shall be considered to be in compliance with subsection (e)(5)(D)2.
2. Negative pressure shall be maintained in AII rooms or areas. The ventilation rate shall be 12 or more air changes per hour (ACH). The required ventilation rate may be achieved in part by using in-room high efficiency particulate air (HEPA) filtration or other air cleaning technologies, but in no case shall the outdoor air supply ventilation rate be less than six ACH. Hoods, booths, tents and other local exhaust control measures shall comply with Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings.
3. Negative pressure shall be visually demonstrated by smoke trails or equally effective means daily while a room or area is in use for AII.
4. Engineering controls shall be maintained, inspected and performance monitored for exhaust or recirculation filter loading and leakage at least annually, whenever filters are changed, and more often if necessary to maintain effectiveness. Where UVGI is used, it shall be used, maintained, inspected and controlled in accordance with Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings. Problems found shall be corrected in a reasonable period of time. If the problem(s) prevent the room from providing effective AII, then the room shall not be used for that purpose until the condition is corrected.
5. Ventilation systems for AII rooms or areas shall be constructed, installed, inspected, operated, tested, and maintained in accordance with Section 5143, General Requirements of Mechanical Ventilation Systems, of these orders. Inspections, testing and maintenance shall be documented in writing, in accordance with subsection (j)(3)(F).
6. Air from AII rooms or areas, and areas that are connected via plenums or other shared air spaces shall be exhausted directly outside, away from intake vents, employees, and the general public. Air that cannot be exhausted in such a manner or that must be recirculated must pass through HEPA filters before discharge or recirculation.
7. Ducts carrying air that may reasonably be anticipated to contain aerosolized *M. tuberculosis* or other AirIP shall be maintained under negative pressure for their entire length before in-duct HEPA filtration or until the ducts exit the building for discharge.
8. Doors and windows of AII rooms or areas shall be kept closed while in use for airborne infection isolation, except when doors are opened for entering or exiting and when windows are part of the ventilation system being used to achieve negative pressure.

9. When a case or suspected case vacates an AII room or area, the room or area shall be ventilated according to Table 1 in the Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings for a removal efficiency of 99.9 % before permitting employees to enter without respiratory protection.

(f) Laboratories.

- (1) This subsection applies to laboratory operations where employees perform procedures capable of aerosolizing ATPs-L.
NOTE: Employers with laboratory operations in which employees have direct contact with cases or suspected cases are also required to comply with applicable portions of subsections (d), (e), (g), (h), (i) and (j).
- (2) The biological safety officer shall perform a risk assessment in accordance with the methodology included in Section II of the BMBL for each agent and procedure involving the handling of ATPs-L. The biosafety officer shall record the safe practices required for each evaluated agent/procedure in the Biosafety Plan.
- (3) The employer shall implement feasible engineering and work practice controls, in accordance with the risk assessment performed in subsection (f)(2), to minimize employee exposures to ATPs-L. Where exposure still remains after the institution of engineering and work practice controls, the employer shall provide, and ensure that employees use, personal protective equipment and, where necessary to control exposure, respiratory protection. Control measures shall be consistent with the recommendations in BMBL.
- (4) Biosafety Plan (BSP). The employer shall establish, implement, and maintain an effective written Biosafety Plan to minimize employee exposures to ATPs-L that may be transmitted by laboratory aerosols. The BSP may be incorporated into an existing Exposure Control Plan for bloodborne pathogens or an ATD Exposure Control Plan as described in subsection (d), and shall do all of the following:
 - (A) Identify a biological safety officer(s) with the necessary knowledge, authority and responsibility for implementing the BSP.
 - (B) Include a list of all job classifications in which all or some employees have occupational exposure, and a list of all tasks and procedures in which employees have occupational exposure.
 - (C) Include a list of ATPs-L known or reasonably expected to be present in laboratory materials and the applicable biosafety measures.
 - (D) Include a requirement that all incoming materials containing ATPs-L are to be treated as containing the virulent or wild-type pathogen, until procedures have been conducted at the laboratory to verify that a pathogen has been deactivated or attenuated.
 - (E) Identify and describe the use of engineering controls, including containment equipment and procedures, to be used to minimize exposure to infectious or potentially infectious laboratory aerosols.
 - (F) Establish safe handling procedures and prohibit practices, such as sniffing *in vitro* cultures, that may increase employee exposure to infectious agents.
 - (G) Establish effective decontamination and disinfection procedures for laboratory surfaces and equipment.

- (H) Identify and describe the use of the appropriate personal protective equipment to be used to minimize exposure to infectious or potentially infectious laboratory aerosols.
- (I) Identify any operations or conditions in which respiratory protection will be required. The use of respiratory protection shall be in accordance with subsection (g) and Section 5144 of these orders.
- (J) Establish emergency procedures for uncontrolled releases within the laboratory facility and untreated releases outside the laboratory facility. These procedures shall include effective means of reporting such incidents to the local health officer.
- (K) Include a medical services program consistent with subsection (h), including the provision of all vaccinations as recommended by applicable public health guidelines for the specific laboratory operations, and the methods for providing investigation and medical follow up for exposure incidents (laboratory).

EXCEPTION to subsection (f)(4)(K): Research and production laboratories in which it is not reasonably anticipated that materials containing *M. Tuberculosis* will be present need not provide surveillance for LTBI.

- (L) Include procedures for communication of hazards and employee training that complies with subsection (i). This shall include training in the employer's Biosafety Plan and emergency procedures.
- (M) Include an effective procedure for obtaining the active involvement of employees in reviewing and updating the Biosafety Plan with respect to the procedures performed by employees in their respective work areas or departments on an annual (or more frequent) basis.
- (N) Include procedures for the biological safety officer(s) to review plans for facility design and construction that will affect the control measures for ATPs-L.
- (O) Include procedures for inspection of laboratory facilities, including an audit of biosafety procedures. These inspections shall be performed at least annually. Hazards found during the inspection, and actions taken to correct hazards, shall be recorded.

(5) Recordkeeping shall be in accordance with subsection (j).

(g) Respiratory Protection.

- (1) Respirators provided for compliance with this section shall be approved by NIOSH for the purpose for which they are used.
- (2) Each employer who has any employee whose occupational exposure is based on entering any of the work settings or performing any of the tasks described in subsection (g)(4) shall establish, implement and maintain an effective written respiratory protection program that meets the requirements of Section 5144 of these orders, except as provided in subsections (g)(5) and (g)(6).

NOTE to subsection (g)(2): The respiratory protection program may be incorporated into the ATD Exposure Control Plan or the Biosafety Plan.

(3) Respirator selection.

- (A) Where respirator use is required for protection against potentially infectious aerosols and is not required to meet the requirements of subsections (g)(3)(B) or (g)(3)(C), the employer shall provide a respirator that is at least as effective as an N95 filtering facepiece respirator, unless the employer's evaluation of respiratory hazards determines that a more protective respirator is necessary, in which case the more protective respirator shall be provided.

(B) Effective September 1, 2010, the employer shall provide a powered air purifying respirator (PAPR) with a High Efficiency Particulate Air (HEPA) filter(s), or a respirator providing equivalent or greater protection, to employees who perform high hazard procedures on AirID cases or suspected cases and to employees who perform high hazard procedures on cadavers potentially infected with ATPs, unless the employer determines that this use would interfere with the successful performance of the required task or tasks. This determination shall be documented in accordance with the ATD Plan and shall be reviewed by the employer and employees at least annually in accordance with subsection (d)(3).

EXCEPTION 1 to subsection (g)(3)(B): Where a high hazard procedure is performed by placing the patient in a booth, hood or other ventilated enclosure that effectively contains and removes the aerosols resulting from the procedure, and the employee remains outside of the enclosure, the employee may use a respirator meeting the requirements of subsection (g)(3)(A).

EXCEPTION 2 to subsection (g)(3)(B): Paramedics and other emergency medical personnel in field operations may use a P100 respirator in lieu of a PAPR.

(C) Respirators used in laboratory operations to protect against infectious aerosols shall be selected in accordance with the risk assessment and biosafety plan, in accordance with subsection (f).

(D) Where respirators are necessary to protect the user from other hazards, including the uncontrolled release of microbiological spores, or exposure to chemical or radiologic agents, respirator selection shall also be made in accordance with Sections 5144, Respiratory Protection, and 5192, Hazardous Waste and Emergency Response Operations, of these orders, as applicable.

(4) The employer shall provide, and ensure that employees use, a respirator selected in accordance with subsection (g)(3) and Section 5144 when the employee:

(A) Enters an AII room or area in use for AII;

(B) Is present during the performance of procedures or services for an AirID case or suspected case;

(C) Repairs, replaces, or maintains air systems or equipment that may contain or generate aerosolized pathogens;

(D) Is working in an area occupied by an AirID case or suspected case, during decontamination procedures after the person has left the area and as required by subsection (e)(5)(D)9;

(E) Is working in a residence where an AirID case or suspected case is known to be present;

(F) Is present during the performance of aerosol generating procedures on cadavers that are suspected of, or confirmed as, being infected with aerosol transmissible pathogens;

(G) Is performing a task for which the Biosafety Plan or Exposure Control Plan requires the use of respirators; or

(H) Transports an AirID case or suspected case within the facility or in an enclosed vehicle (e.g., van, car, ambulance or helicopter) when the patient is not masked.
EXCEPTIONS to subsection (g)(4)(H):

(1) The employer shall not require or permit respirator use when an employee is operating a helicopter or other vehicle and the respirator may interfere with

the safe operation of that vehicle. When employees do not use respirators, the employer shall provide other means of protection such as barriers or source control measures, where feasible.

- (2) Law enforcement or corrections personnel who transport an airborne infectious disease case or suspected case in a vehicle need not use respiratory protection if all of the following conditions are met:
 - i. A solid partition separates the passenger area from the area where employees are located;
 - ii. The employer implements written procedures that specify the conditions of operation, including the operation of windows and fans;
 - iii. The employer tests (for example by the use of smoke tubes) the airflow in a representative vehicle (of the same model, year of manufacture, and partition design) under the specified conditions of operation, and finds that there is no detectable airflow from the passenger compartment to the employee area;
 - iv. The employer records and maintains the results, in accordance with subsection (j)(3)(F); and
 - v. The person performing the test is knowledgeable about the assessment of air handling systems.
- (5) Medical evaluation: The employer shall provide a medical evaluation, in accordance with Section 5144(e) of these orders, to determine the employee's ability to use a respirator before the employee is fit tested or required to use the respirator. For employees who use respirators solely for compliance with subsections (g)(3)(A) and (g)(3)(B), the alternate questionnaire in Appendix B may be used.
- (6) Fit testing.
 - (A) The employer shall perform either quantitative or qualitative fit tests in accordance with the procedures outlined in Appendix A of Section 5144, Respiratory Protection, of these orders. The fit test shall be performed on the same size, make, model and style of respirator as the employee will use. When quantitative fit testing is performed, the employer shall not permit an employee to wear a filtering facepiece respirator or other half-facepiece respirator, unless a minimum fit factor of one hundred (100) is obtained. When fit testing single use respirators, a new respirator shall be used for each employee.
 - (B) The employer shall ensure that each employee who is assigned to use a filtering facepiece or other tight-fitting respirator passes a fit test:
 1. At the time of initial fitting;
 2. When a different size, make, model or style of respirator is used; and
 3. At least annually thereafter.

EXCEPTION to subsection (g)(6)(B)3: Until January 1, 2014, employers may increase the interval for repeat fit testing to no more than two years for employees who do not perform high hazard procedures and are not using respirators for protection against laboratory generated aerosols. Employers shall provide to each employee who is not fit-tested within the previous 12 months a respirator fit-test screening that includes the information in Appendix G, and that obtains a response to the questions included in Appendix G. As of January 1, 2015, an employee who uses

a respirator under this section shall have been fit-tested within the previous 12 months.

(C) The employer shall conduct an additional fit test when the employee reports, or the employer, PLHCP, supervisor, or program administrator makes visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

(D) If, after passing a fit test, the employee subsequently notifies the employer, program administrator, supervisor, or PLHCP that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator facepiece and to be retested.

(7) The employer shall ensure that each respirator user is provided with initial and annual training in accordance with Section 5144, Respiratory Protection of these orders.

(h) Medical Services.

(1) Each employer who has any employee with occupational exposure shall provide the employee with medical services for tuberculosis and other ATDs, and infection with ATPs and ATPs-L, in accordance with applicable public health guidelines, for the type of work setting and disease. When an employer is also acting as the evaluating health care professional, the employer shall advise the employee following an exposure incident that the employee may refuse to consent to vaccination, post-exposure evaluation and follow-up from the employer-health care professional. When consent is refused, the employer immediately shall make available a confidential vaccination, medical evaluation or follow-up from a PLHCP other than the exposed employee's employer.

(2) Medical services, including vaccinations, tests, examinations, evaluations, determinations, procedures, and medical management and follow-up, shall be:

(A) Performed by or under the supervision of a PLHCP;

(B) Provided according to applicable public health guidelines; and

(C) Provided in a manner that ensures the confidentiality of employees and patients.

Test results and other information regarding exposure incidents and TB conversions shall be provided without providing the name of the source individual.

(3) The employer shall make assessment for latent tuberculosis infection (LTBI) available to all employees with occupational exposure. Assessment procedures shall be in accordance with applicable public health guidelines.

(A) TB tests and other forms of TB assessment shall be provided at least annually, and more frequently, if applicable public health guidelines or the local health officer recommends more frequent testing. Employees with baseline positive TB test shall have an annual symptom screen.

(B) The employer shall refer employees who experience a TB conversion to a PLHCP knowledgeable about TB for evaluation.

1. The employer shall provide the PLHCP with a copy of this standard and the employee's TB test records. If the employer has determined the source of the infection, the employer shall also provide any available diagnostic test results including drug susceptibility patterns relating to the source patient.

2. The employer shall request that the PLHCP, with the employee's consent, perform any necessary diagnostic tests and inform the employee about appropriate treatment options.
3. The employer shall request that the PLHCP determine if the employee is a TB case or suspected case, and to do all of the following, if the employee is a case or suspected case:
 - a. Inform the employee and the local health officer in accordance with Title 17.
 - b. Consult with the local health officer and inform the employer of any infection control recommendations related to the employee's activity in the workplace.
 - c. Make a recommendation to the employer regarding precautionary removal due to suspect active disease, in accordance with subsection (h)(8), and provide the employer with a written opinion in accordance with subsection (h)(9).

(C) TB conversions shall be recorded in accordance with California Code of Regulations, Title 8, Section 14300 et seq.

(D) Unless it is determined that the TB test conversion is not occupational, the employer shall investigate the circumstances of the conversion, and correct any deficiencies found during the investigation. The investigation shall be documented in accordance with subsection (j).

EXCEPTION to subsection (h)(3): Research and production laboratories in which *M. tuberculosis* containing materials are not reasonably anticipated to be present, need not provide assessment for LTBI infection.

(4) Laboratory tests shall be conducted by an accredited laboratory.

(5) The employer shall make available to all susceptible health care workers with occupational exposure all vaccine doses listed in Appendix E. Employees in laboratory operations outside of health care settings, and within the scope of subsection (f), shall be provided with vaccines in accordance with the BMBL for the specific laboratory operations. The requirements in subsection (h)(5) will become effective on September 1, 2010.

(A) Recommended vaccinations shall be made available to all employees who have occupational exposure after the employee has received the training required in subsection (c) or (i) and within 10 working days of initial assignment unless:

1. The employee has previously received the recommended vaccination(s) and is not due to receive another vaccination dose; or
2. A PLHCP has determined that the employee is immune in accordance with applicable public health guidelines; or
3. The vaccine(s) is contraindicated for medical reasons.

(B) The employer shall make additional vaccine doses available to employees within 120 days of the issuance of new applicable public health guidelines recommending the additional dose.

(C) The employer shall not make participation in a prescreening serology program a prerequisite for receiving a vaccine, unless applicable public health guidelines recommend this prescreening prior to administration of the vaccine.

- (D) If the employee initially declines a vaccination but at a later date, while still covered under the standard, decides to accept the vaccination, the employer shall make the vaccination available in accordance with subsection (h)(5)(A) within 10 working days of receiving a written request from the employee.
- (E) The employer shall ensure that employees who decline to accept a recommended and offered vaccination sign the statement in Appendix C1 for each declined vaccine.
- (F) The employer shall request the PLHCP administering a vaccination or determining immunity to provide only the following information to the employer:
 1. The employee's name and employee identifier.
 2. The date of the vaccine dose or determination of immunity.
 3. Whether the employee is immune to the disease, and whether there are any specific restrictions on the employee's exposure or ability to receive vaccine.
 4. Whether an additional vaccination dose is required, and if so, the date the additional vaccination dose should be provided.

EXCEPTION to subsection (h)(5): Where the employer cannot implement these procedures because of the lack of availability of vaccine, the employer shall document efforts made to obtain the vaccine in a timely manner and inform employees of the status of the vaccine availability, including when the vaccine is likely to become available. The employer shall check on the availability of the vaccine at least every 60 calendar days and inform employees when the vaccine becomes available.

(6) Exposure Incidents.

- (A) A health care provider, or the employer of a health care provider who determines that a person is an RATD case or suspected case shall report, or ensure that the health care provider reports, the case to the local health officer, in accordance with Title 17.
- (B) In addition to the report required in subsection (h)(6)(A), the employer in the facility, service or operation that originates the report shall determine, to the extent that the information is available in the employer's records, whether the employee(s) of any other employer(s) may have had contact with the case or suspected case while performing activities within the scope of this section. The employer shall notify the other employer(s) within a timeframe that will both provide reasonable assurance that there will be adequate time for the employee to receive effective medical intervention to prevent disease or mitigate the disease course, and will also permit the prompt initiation of an investigation to identify exposed employees. In no case, shall the notification be longer than 72 hours after the report to the local health officer. The notification shall include the date, time, and nature of the potential exposure, and provide any other information that is necessary for the other employer(s) to evaluate the potential exposure of his or her employees. The notifying employer shall not provide the identity of the source patient to the other employers.

NOTE 1 to subsection (h)(6)(B): These employees may include, but are not limited to, paramedics, emergency medical technicians, emergency responders, home health care personnel, homeless shelter personnel, personnel at referring health care facilities or agencies, and corrections personnel.

NOTE 2 to subsection (h)(6)(B): Some diseases, such as meningococcal disease, require prompt prophylaxis of exposed individuals to prevent disease. Some diseases, such as varicella, have a limited window in which to administer vaccine to non-immune contacts. Exposure to some diseases may create a need to temporarily remove an employee from certain duties during a potential period of communicability. For other diseases such as tuberculosis there may not be a need for immediate medical intervention, however prompt follow up is important to the success of identifying exposed employees.

- (C) Each employer who becomes aware that his or her employees may have been exposed to an RATD case or suspected case, or to an exposure incident involving an ATP-L shall do all of the following:
1. Within a timeframe that is reasonable for the specific disease, as described in subsection (h)(6)(B), but in no case later than 72 hours following, as applicable, the employer's report to the local health officer or the receipt of notification from another employer or the local health officer, conduct an analysis of the exposure scenario to determine which employees had significant exposures. This analysis shall be conducted by an individual knowledgeable in the mechanisms of exposure to ATPs or ATPs-L, and shall record the names and any other employee identifier used in the workplace of persons who were included in the analysis. The analysis shall also record the basis for any determination that an employee need not be included in post-exposure follow-up because the employee did not have a significant exposure or because a PLHCP determined that the employee is immune to the infection in accordance with applicable public health guidelines. The exposure analysis shall be made available to the local health officer upon request. The name of the person making the determination, and the identity of any PLHCP or local health officer consulted in making the determination shall be recorded.
 2. Within a timeframe that is reasonable for the specific disease, as described in subsection (h)(6)(B), but in no case later than 96 hours of becoming aware of the potential exposure, notify employees who had significant exposures of the date, time, and nature of the exposure.
 3. As soon as feasible, provide post-exposure medical evaluation to all employees who had a significant exposure. The evaluation shall be conducted by a PLHCP knowledgeable about the specific disease, including appropriate vaccination, prophylaxis and treatment. For *M. tuberculosis*, and for other pathogens where recommended by applicable public health guidelines, this shall include testing of the isolate from the source individual or material for drug susceptibility, unless the PLHCP determines that it is not feasible.
 4. Obtain from the PLHCP a recommendation regarding precautionary removal in accordance with subsection (h)(8), and a written opinion in accordance with subsection (h)(9).
 5. Determine, to the extent that the information is available in the employer's records, whether employees of any other employers may have been exposed to the case or material. The employer shall notify these other employers within a time frame that is reasonable for the specific disease, as described in subsection (h)(6)(B), but in no case later than 72 hours of becoming aware of

the exposure incident of the nature, date, and time of the exposure, and shall provide the contact information for the diagnosing PLHCP. The notifying employer shall not provide the identity of the source patient to other employers.

(7) Information provided to the Physician or Other Licensed Health Care Professional.

(A) Each employer shall ensure that all PLHCPs responsible for making determinations and performing procedures as part of the medical services program are provided a copy of this standard and applicable public health guidelines. For respirator medical evaluations, the employer shall provide information regarding the type of respiratory protection used, a description of the work effort required, any special environmental conditions that exist (e.g., heat, confined space entry), additional requirements for protective clothing and equipment, and the duration and frequency of respirator use.

(B) Each employer shall ensure that the PLHCP who evaluates an employee after an exposure incident is provided the following information:

1. A description of the exposed employee's duties as they relate to the exposure incident;
2. The circumstances under which the exposure incident occurred;
3. Any available diagnostic test results, including drug susceptibility pattern or other information relating to the source of exposure that could assist in the medical management of the employee; and
4. All of the employer's medical records for the employee that are relevant to the management of the employee, including tuberculin skin test results and other relevant tests for ATP infections, vaccination status, and determinations of immunity.

(8) Precautionary removal recommendation from the physician or other licensed health care professional.

(A) Each employer who provides a post-exposure evaluation in accordance with this Section, or an evaluation of an employee's TB conversion in accordance with subsection (h)(3) shall request from the PLHCP an opinion regarding whether precautionary removal from the employee's regular assignment is necessary to prevent spread of the disease agent by the employee and what type of alternate work assignment may be provided. The employer shall request that the PLHCP convey to the employer any recommendation for precautionary removal immediately via phone or fax and that the PLHCP document the recommendation in the written opinion as required in subsection (h)(9).

(B) Where the PLHCP recommends precautionary removal, or where the local health officer recommends precautionary removal, the employer shall maintain until the employee is determined to be noninfectious, the employee's earnings, seniority, and all other employee rights and benefits, including the employee's right to his or her former job status, as if the employee had not been removed from his or her job or otherwise medically limited.

EXCEPTION to subsection (h)(8)(B): Precautionary removal provisions do not extend to any period of time during which the employee is unable to work for reasons other than precautionary removal.

(9) Written opinion from the physician or other licensed health care professional.

- (A) Each employer shall obtain, and provide the employee with a copy of, the written opinion of the PLHCP within 15 working days of the completion of all medical evaluations required by this section.
 - (B) For respirator use, the physician's opinion shall have the content required by Section 5144(e)(6) of these orders.
 - (C) For TB conversions and all RATD and ATP-L exposure incidents, the written opinion shall be limited to the following information:
 - 1. The employee's TB test status or applicable RATD test status for the exposure of concern;
 - 2. The employee's infectivity status;
 - 3. A statement that the employee has been informed of the results of the medical evaluation and has been offered any applicable vaccinations, prophylaxis, or treatment;
 - 4. A statement that the employee has been told about any medical conditions resulting from exposure to TB, other RATD, or ATP-L that require further evaluation or treatment and that the employee has been informed of treatment options; and
 - 5. Any recommendations for precautionary removal from the employee's regular assignment.
 - (D) All other findings or diagnoses shall remain confidential and shall not be included in the written report.
- (10) The employer shall make available seasonal influenza vaccine to all employees with occupational exposure. The employer shall ensure that each employee who declines to accept the seasonal influenza vaccine signs the statement in Appendix C2.
- EXCEPTION 1 to subsection (h)(10): Seasonal influenza vaccine shall be provided during the period designated by the CDC for administration, and need not be provided outside of those periods.
- EXCEPTION 2 to subsection (h)(10): In lieu of the statement in Appendix C2, the employer may utilize an influenza vaccine declination statement acceptable to the CDPH in accordance with Health and Safety Code Section 1288.7.

(i) Training.

- (1) Employers shall ensure that all employees with occupational exposure participate in a training program.
- (2) Employers shall provide training as follows:
 - (A) At the time of initial assignment to tasks where occupational exposure may take place;
 - (B) At least annually thereafter, not to exceed 12 months from the previous training;
 - (C) For employees who have received training on aerosol transmissible diseases in the year preceding the effective date of the standard, only training with respect to the provisions of the standard that were not included previously need to be provided.
 - (D) When changes, such as introduction of new engineering or work practice controls, modification of tasks or procedures or institution of new tasks or procedures, affect the employee's occupational exposure or control measures. The additional training may be limited to addressing the new exposures or control measures.
- (3) Training material appropriate in content and vocabulary to the educational level, literacy, and language of employees shall be used.
- (4) The training program shall contain at a minimum the following elements:

- (A) An accessible copy of the regulatory text of this standard and an explanation of its contents.
 - (B) A general explanation of ATDs including the signs and symptoms of ATDs that require further medical evaluation.
 - (C) An explanation of the modes of transmission of ATPs or ATPs-L and applicable source control procedures.
 - (D) An explanation of the employer's ATD Exposure Control Plan and/or Biosafety Plan, and the means by which the employee can obtain a copy of the written plan and how they can provide input as to its effectiveness.
 - (E) An explanation of the appropriate methods for recognizing tasks and other activities that may expose the employee to ATPs or ATPs-L.
 - (F) An explanation of the use and limitations of methods that will prevent or reduce exposure to ATPs or ATPs-L including appropriate engineering and work practice controls, decontamination and disinfection procedures, and personal and respiratory protective equipment.
 - (G) An explanation of the basis for selection of personal protective equipment, its uses and limitations, and the types, proper use, location, removal, handling, cleaning, decontamination and disposal of the items of personal protective equipment employees will use.
 - (H) A description of the employer's TB surveillance procedures, including the information that persons who are immune-compromised may have a false negative test for LTBI.
EXCEPTION: Research and production laboratories do not need to include training on surveillance for LTBI if *M. tuberculosis* containing materials are not reasonably anticipated to be present in the laboratory.
 - (I) Training meeting the requirements of Section 5144(k) of these orders for employees whose assignment includes the use of a respirator.
 - (J) Information on the vaccines made available by the employer, including information on their efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
 - (K) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident, the medical follow-up that will be made available, and post-exposure evaluation.
 - (L) Information on the employer's surge plan as it pertains to the duties that employees will perform. As applicable, this training shall cover the plan for surge receiving and treatment of patients, patient isolation procedures, surge procedures for handling of specimens, including specimens from persons who may have been contaminated as the result of a release of a biological agent, how to access supplies needed for the response including personal protective equipment and respirators, decontamination facilities and procedures, and how to coordinate with emergency response personnel from other agencies.
- (5) Every training program shall include an opportunity for interactive questions and answers with a person who is knowledgeable in the subject matter of the training as it relates to the workplace that the training addresses and who is also knowledgeable in the employer's ATD exposure control or biosafety plan. Training not given in person shall fulfill all the subject

matter requirements of subsections (i)(4) and shall provide for interactive questions to be answered within 24 hours by a knowledgeable person as described above.

(j) Recordkeeping.

(1) Medical records.

(A) The employer shall establish and maintain an accurate medical record for each employee with occupational exposure, in accordance with Section 3204, Access to Employee Exposure and Medical Records, of these orders.

NOTE to subsection (j)(1)(A): This record may be combined with the medical record required by Section 5193, Bloodborne Pathogens, of these orders, but may not be combined with non-medical personnel records.

(B) This record shall include:

1. The employee's name and any other employee identifier used in the workplace;
2. The employee's vaccination status for all vaccines required by this standard, including the information provided by the PLHCP in accordance with subsection (h)(5)(F), any vaccine record provided by the employee, and any signed declination forms;
EXCEPTION to subsection (j)(1)(B)2.: As to seasonal influenza vaccine, the medical record need only contain a declination form for the most recent seasonal influenza vaccine.
3. A copy of all written opinions provided by a PLHCP in accordance with this standard, and the results of all TB assessments; and
4. A copy of the information regarding an exposure incident that was provided to the PLHCP as required by subsection (h)(7)(B).

(C) Confidentiality. The employer shall ensure that all employee medical records required by this section are:

1. Kept confidential; and
2. Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as permitted by this section or as may be required by law.

NOTE to subsection (j)(1)(C): These provisions do not apply to records that do not contain individually identifiable medical information, or from which individually identifiable medical information has been removed.

(D) The employer shall maintain the medical records required by this section for at least the duration of employment plus 30 years in accordance with Section 3204, Access to Employee Exposure and Medical Records, of these orders.

(2) Training records.

(A) Training records shall include the following information:

1. The date(s) of the training session(s);
2. The contents or a summary of the training session(s);
3. The names and qualifications of persons conducting the training or who are designated to respond to interactive questions; and
4. The names and job titles of all persons attending the training sessions.

(B) Training records shall be maintained for 3 years from the date on which the training occurred.

(3) Records of implementation of ATD Plan and/or Biosafety Plan.

- (A) Records of annual review of the ATD Plan and Biosafety Plan shall include the name(s) of the person conducting the review, the dates the review was conducted and completed, the name(s) and work area(s) of employees involved, and a summary of the conclusions. The record shall be retained for three years.
 - (B) Records of exposure incidents shall be retained and made available as employee exposure records in accordance with Section 3204. These records shall include:
 - 1. The date of the exposure incident;
 - 2. The names, and any other employee identifiers used in the workplace, of employees who were included in the exposure evaluation;
 - 3. The disease or pathogen to which employees may have been exposed;
 - 4. The name and job title of the person performing the evaluation;
 - 5. The identity of any local health officer and/or PLHCP consulted;
 - 6. The date of the evaluation; and
 - 7. The date of contact and contact information for any other employer who either notified the employer or was notified by the employer regarding potential employee exposure.
 - (C) Records of the unavailability of vaccine shall include the name of the person who determined that the vaccine was not available, the name and affiliation of the person providing the vaccine availability information, and the date of the contact. This record shall be retained for three years.
 - (D) Records of the unavailability of AII rooms or areas shall include the name of the person who determined that an AII room or area was not available, the names and the affiliation of persons contacted for transfer possibilities, and the date of the contact, the name and contact information for the local health officer providing assistance, and the times and dates of these contacts. This record, which shall not contain a patient's individually identifiable medical information, shall be retained for three years.
 - (E) Records of decisions not to transfer a patient to another facility for AII for medical reasons shall be documented in the patient's chart, and a summary shall be provided to the Plan administrator providing only the name of the physician determining that the patient was not able to be transferred, the date and time of the initial decision and the date, time and identity of the person(s) who performed each daily review. The summary record, which shall not contain a patient's individually identifiable medical information, shall be retained for three years.
 - (F) Records of inspection, testing and maintenance of non-disposable engineering controls including ventilation and other air handling systems, air filtration systems, containment equipment, biological safety cabinets, and waste treatment systems shall be maintained for a minimum of five years and shall include the name(s) and affiliation(s) of the person(s) performing the test, inspection or maintenance, the date, and any significant findings and actions that were taken.
 - (G) Records of the respiratory protection program shall be established and maintained in accordance with Section 5144, Respiratory Protection, of these orders. Employers who provide fit-test screening, in accordance with the exception to subsection (g)(6)(B)3 shall retain the screening record for two years.
- (4) Availability.
- (A) The employer shall ensure that all records, other than the employee medical records more specifically dealt with in subsection (j)(4)(C), required to be maintained by this

- section shall be made available upon request to the Chief and NIOSH and the local health officer for examination and copying.
- (B) Employee training records, the exposure control plan and/or biosafety plan, and records of implementation of the ATD exposure control plan and biosafety plan, other than medical records containing individually identifiable medical information, shall be made available as employee exposure records in accordance with Section 3204(e)(1) to employees and employee representatives.
 - (C) Employee medical records required by this subsection shall be provided upon request to the subject employee, anyone having the written consent of the subject employee, the local health officer, and to the Chief and NIOSH in accordance with Section 3204 of these orders, Access to Employee Exposure and Medical Records, for examination and copying.
- (5) Transfer of Records.
- (A) The employer shall comply with the requirements involving the transfer of employee medical and exposure records that are set forth in Section 3204, Access to Employee Exposure and Medical Records, of these orders.
 - (B) If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Chief and NIOSH, at least three months prior to the disposal of the records and shall transmit them to NIOSH, if required by NIOSH to do so, within that three-month period.

NOTE: Authority cited: Sections 142.3 and 6308; Labor Code. Reference: Sections 142.3 and 6308, Labor Code, and 8 CCR 332.3.

HISTORY

1. New section filed 7-6-2009; operative 8-5-2009 (Register 2009, No. 28). For prior history, see Register 87, No. 51.

Appendix A – Aerosol Transmissible Diseases/Pathogens (Mandatory)

This appendix contains a list of diseases and pathogens which are to be considered aerosol transmissible pathogens or diseases for the purpose of Section 5199. Employers are required to provide the protections required by Section 5199 according to whether the disease or pathogen requires airborne infection isolation or droplet precautions as indicated by the two lists below.

Diseases/Pathogens Requiring Airborne Infection Isolation

Aerosolizable spore-containing powder or other substance that is capable of causing serious human disease, e.g. Anthrax/*Bacillus anthracis*

Avian influenza/Avian influenza A viruses (strains capable of causing serious disease in humans)

Varicella disease (chickenpox, shingles)/Varicella zoster and Herpes zoster viruses, disseminated disease in any patient. Localized disease in immunocompromised patient until disseminated infection ruled out

Measles (rubeola)/Measles virus

Monkeypox/Monkeypox virus

Novel or unknown pathogens

Severe acute respiratory syndrome (SARS)

Smallpox (variola)/Variola virus

Tuberculosis (TB)/*Mycobacterium tuberculosis* -- Extrapulmonary, draining lesion; Pulmonary or laryngeal disease, confirmed; Pulmonary or laryngeal disease, suspected

Any other disease for which public health guidelines recommend airborne infection isolation

Diseases/Pathogens Requiring Droplet Precautions

Diphtheria pharyngeal

Epididymitis, due to *Haemophilus influenzae* type b

Haemophilus influenzae Serotype b (Hib) disease/*Haemophilus influenzae* serotype b -- Infants and children

Influenza, human (typical seasonal variations)/influenza viruses

Meningitis

Haemophilus influenzae, type b known or suspected

Neisseria meningitidis (meningococcal) known or suspected

Meningococcal disease sepsis, pneumonia (see also meningitis)

Mumps (infectious parotitis)/Mumps virus

Mycoplasma pneumoniae

Parvovirus B19 infection (erythema infectiosum)

Pertussis (whooping cough)

Pharyngitis in infants and young children/Adenovirus, Orthomyxoviridae, Epstein-Barr virus, Herpes simplex virus,

Pneumonia

Adenovirus

Haemophilus influenzae Serotype b, infants and children

Meningococcal

Mycoplasma, primary atypical

Streptococcus Group A

Pneumonic plague/*Yersinia pestis*

Rubella virus infection (German measles)/Rubella virus

Severe acute respiratory syndrome (SARS)

Streptococcal disease (group A streptococcus)

Skin, wound or burn, Major

Pharyngitis in infants and young children

Pneumonia

Scarlet fever in infants and young children

Serious invasive disease

Viral hemorrhagic fevers due to Lassa, Ebola, Marburg, Crimean-Congo fever viruses (airborne infection isolation and respirator use may be required for aerosol-generating procedures)

Any other disease for which public health guidelines recommend droplet precautions

Aerosol Transmissible Diseases

Appendix B – Alternate Respirator Medical Evaluation Questionnaire (This Appendix is Mandatory if the Employer chooses to use a Respirator Medical Evaluation Questionnaire other than the Questionnaire in Section 5144 Appendix C)

To the PLHCP: Answers to questions in Section 1, and to question 6 in Section 2 do not require a medical examination. Employees must be provided with a confidential means of contacting the health care professional who will review this questionnaire.

To the employee: Can you read and understand this questionnaire (circle one): Yes No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Section 1. The following information must be provided by every employee who has been selected to use any type of respirator (please print).

Today's date: _____

Name: _____

Job Title: _____

Your age (to nearest year): _____

Sex (circle one): Male Female

Height: _____ ft. _____ in. Weight: _____ lbs.

Phone number where you can be reached (include the Area Code): () _____

The best time to phone you at this number: _____

Has your employer told you how to contact the health care professional who will review this questionnaire (circle one) : Yes No

Check the type of respirator you will use (you can check more than one category):

- o N, R, or P disposable respirator (filter-mask, non-cartridge type only).
o Other type (ex, half- or full-facepiece type, PAPR, supplied-air, SCBA). (fill in type here) _____

Have you worn a respirator (circle one): Yes No

If "yes," what type(s): _____

Section 2. Questions 1 through 6 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Have you ever had any of the following conditions?

Allergic reactions that interfere with your breathing: Yes No What did you react to? _____
Claustrophobia (fear of closed-in places) Yes No

2. Do you currently have any of the following symptoms of pulmonary or lung illness?

Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes No Coughing that produces phlegm (thick sputum): Yes No
Have to stop for breath when walking at your own pace on level ground: Yes No Coughing up blood in the last month: Yes No
Shortness of breath that interferes with your job: Yes No Wheezing that interferes with your job: Yes No
Any other symptoms that you think may be related to lung problems: Yes No Chest pain when you breathe deeply: Yes No

3. Do you currently have any of the following cardiovascular or heart symptoms?

Frequent pain or tightness in your chest: Yes No
Pain or tightness in your chest during physical activity: Yes No

Pain or tightness in your chest that interferes with your job: Yes No
Any other symptoms that you think may be related to heart or circulation problems: Yes No

4. Do you currently take medication for any of the following problems?

Breathing or lung problems: Yes No
Heart trouble: Yes No
Nose, throat or sinuses: Yes No
Are your problems under control with these medications? Yes No

5. If you've used a respirator, have you ever had any of the following problems while respirator is being used?

(If you've never used a respirator, check the following space and go to question 6:) _____

Skin allergies or rashes: Yes No
Anxiety: Yes No
General weakness or fatigue: Yes No
Any other problem that interferes with your use of a respirator: Yes No

6. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes No

Employee Signature

Date

PLHCP Signature

Date

Appendix C1 – Vaccination Declination Statement (Mandatory)

The employer shall ensure that employees who decline to accept a recommended vaccination offered by the employer sign and date the following statement as required by subsection (h)(5)(E):

I understand that due to my occupational exposure to aerosol transmissible diseases, I may be at risk of acquiring infection with _____ (name of disease or pathogen). I have been given the opportunity to be vaccinated against this disease or pathogen at no charge to me. However, I decline this vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring _____, a serious disease. If in the future I continue to have occupational exposure to aerosol transmissible diseases and want to be vaccinated, I can receive the vaccination at no charge to me.

Employee Signature

Date

Appendix C2 – Seasonal Influenza Vaccination Declination Statement (Mandatory)

The employer shall ensure that employees who decline to accept the seasonal influenza vaccination offered by the employer sign and date the following statement as required by subsection (h)(10):

I understand that due to my occupational exposure to aerosol transmissible diseases, I may be at risk of acquiring seasonal influenza. I have been given the opportunity to be vaccinated against this infection at no charge to me. However, I decline this vaccination at this time. I understand that by declining this vaccine, I continue to be at increased risk of acquiring influenza. If, during the season for which the CDC recommends administration of the influenza vaccine, I continue to have occupational exposure to aerosol transmissible diseases and want to be vaccinated, I can receive the vaccination at no charge to me.

Employee Signature

Date

Appendix D: Aerosol Transmissible Pathogens – Laboratory (Mandatory)

This appendix contains a list of agents that, when reasonably anticipated to be present, require a laboratory to comply with Section 5199 for laboratory operations by performing a risk assessment and establishing a biosafety plan that includes appropriate control measures as identified in the standard.

- Adenovirus (in clinical specimens and in cultures or other materials derived from clinical specimens)
- Arboviruses, unless identified individually elsewhere in this list (large quantities or high concentrations* of arboviruses for which CDC recommends BSL-2, e.g., dengue virus; potentially infectious clinical materials, infected tissue cultures, animals, or arthropods involving arboviruses for which CDC recommends BSL-3 or higher, e.g., Japanese encephalitis, West Nile virus, Yellow Fever)
- Arenaviruses (large quantities or high concentrations of arenaviruses for which CDC recommends BSL-2, e.g., Pichinde virus; potentially infectious clinical materials, infected tissue cultures, animals, or arthropods involving arenaviruses for which CDC recommends BSL-3 or higher, e.g., Flexal virus)
- Bacillus anthracis* (activities with high potential for aerosol production**, large quantities or high concentrations, screening environmental samples from *b. anthracis* - contaminated locations)
- Blastomyces dermatitidis* (sporulating mold-form cultures, processing environmental materials known or likely to contain infectious conidia)
- Bordetella pertussis* (aerosol generation, or large quantities or high concentrations)
- Brucella abortus*, *B. canis*, *B. "maris"*, *B. melitensis*, *B. suis* (cultures, experimental animal studies, products of conception containing or believed to contain pathogenic *Brucella* spp.)
- Burkholderia mallei*, *B. pseudomallei* (potential for aerosol or droplet exposure, handling infected animals, large quantities or high concentrations)
- Cercopithecine herpesvirus (see Herpesvirus simiae)
- Chlamydia pneumoniae* (activities with high potential for droplet or aerosol production, large quantities or high concentrations)
- Chlamydia psittaci* (activities with high potential for droplet or aerosol production, large quantities or high concentrations, non-avian strains, infected caged birds, necropsy of infected birds and diagnostic examination of tissues or cultures known to contain or be potentially infected with *C. psittaci* strains of avian origin)
- Chlamydia trachomatis* (activities with high potential for droplet or aerosol production, large quantities or high concentrations, cultures of lymphogranuloma venereum (LGV) serovars, specimens known or likely to contain *C. trachomatis*)
- Clostridium botulinum* (activities with high potential for aerosol or droplet production, large quantities or high concentrations)
- Coccidioides immitis*, *C. posadasii* (sporulating cultures, processing environmental materials known or likely to contain infectious arthroconidia, experimental animal studies involving exposure by the intranasal or pulmonary route)
- Corynebacterium diphtheriae*

Coxiella burnetii (inoculation, incubation, and harvesting of embryonated eggs or cell cultures; experimental animal studies, animal studies with infected arthropods, necropsy of infected animals, handling infected tissues)

Crimean-Congo haemorrhagic fever virus

Cytomegalovirus, human (viral production, purification, or concentration)

Eastern equine encephalomyelitis virus (EEEV) (clinical materials, infectious cultures, infected animals or arthropods)

Ebola virus

Epstein-Barr virus (viral production, purification, or concentration)

Escherichia coli, shiga toxin-producing only (aerosol generation or high splash potential)

Flexal virus

Francisella tularensis (suspect cultures—including preparatory work for automated identification systems, experimental animal studies, necropsy of infected animals, high concentrations of reduced-virulence strains)

Guanarito virus

Haemophilus influenzae, type b

Hantaviruses (serum or tissue from potentially infected rodents, potentially infected tissues, large quantities or high concentrations, cell cultures, experimental rodent studies)

Helicobacter pylori (homogenizing or vortexing gastric specimens)

Hemorrhagic fever -- specimens from cases thought to be due to dengue or yellow fever viruses or which originate from areas in which communicable hemorrhagic fever are reasonably anticipated to be present

Hendra virus

Hepatitis B, C, and D viruses (activities with high potential for droplet or aerosol generation, large quantities or high concentrations of infectious materials)

Herpes simplex virus 1 and 2

Herpesvirus simiae (B-virus) (consider for any material suspected to contain virus, mandatory for any material known to contain virus, propagation for diagnosis, cultures)

Histoplasma capsulatum (sporulating mold-form cultures, propagating environmental materials known or likely to contain infectious conidia)

Human herpesviruses 6A, 6B, 7, and 8 (viral production, purification, or concentration)

Influenza virus, non-contemporary human (H2N2) strains, 1918 influenza strain, highly pathogenic avian influenza (HPAI) (large animals infected with 1918 strain and animals infected with HPAI strains in ABSL-3 facilities, loose-housed animals infected with HPAI strains in BSL-3-Ag facilities)

Influenza virus, H5N1 - human, avian

Junin virus

Kyasanur forest disease virus

Lassa fever virus

Legionella pneumophila, other legionella-like agents (aerosol generation, large quantities or high concentrations)

Lymphocytic choriomeningitis virus (LCMV) (field isolates and clinical materials from human cases, activities with high potential for aerosol generation, large quantities or high concentrations, strains lethal to nonhuman primates, infected transplantable tumors, infected hamsters)

Machupo virus
 Marburg virus
 Measles virus
 Monkeypox virus (experimentally or naturally infected animals)
 Mumps virus
Mycobacterium tuberculosis complex (*M. africanum*, *M. bovis*, *M. caprae*, *M. microti*, *M. pinnipedii*, *M. tuberculosis* (aerosol-generating activities with clinical specimens, cultures, experimental animal studies with infected nonhuman primates)
Mycobacteria spp. other than those in the *M. tuberculosis* complex and *M. leprae* (aerosol generation)
Mycoplasma pneumoniae
Neisseria gonorrhoeae (large quantities or high concentrations, consider for aerosol or droplet generation)
Neisseria meningitidis (activities with high potential for droplet or aerosol production, large quantities or high concentrations)
 Nipah virus
 Omsk hemorrhagic fever virus
 Parvovirus B19
 Prions (bovine spongiform encephalopathy prions, only when supported by a risk assessment)
 Rabies virus, and related lyssaviruses (activities with high potential for droplet or aerosol production, large quantities or high concentrations)
 Retroviruses, including Human and Simian Immunodeficiency viruses (HIV and SIV) (activities with high potential for aerosol or droplet production, large quantities or high concentrations)
Rickettsia prowazekii, *Orientia (Rickettsia) tsutsugamushi*, *R. typhi* (*R. mooseri*), Spotted Fever Group agents (*R. akari*, *R. australis*, *R. conorii*, *R. japonicum*, *R. rickettsii*, and *R. siberica*) (known or potentially infectious materials; inoculation, incubation, and harvesting of embryonated eggs or cell cultures; experimental animal studies with infected arthropods)
 Rift valley fever virus (RVFV)
 Rubella virus
 Sabia virus
Salmonella spp. other than *S. typhi* (aerosol generation or high splash potential)
Salmonella typhi (activities with significant potential for aerosol generation, large quantities)
 SARS coronavirus (untreated specimens, cell cultures, experimental animal studies)
Shigella spp. (aerosol generation or high splash potential)
Streptococcus spp., group A
 Tick-borne encephalitis viruses (Central European tick-borne encephalitis, Far Eastern tick-borne encephalitis, Russian spring and summer encephalitis)
 Vaccinia virus
 Varicella zoster virus
 Variola major virus (Smallpox virus)
 Variola minor virus (Alastrim)
 Venezuelan equine encephalitis virus (VEEV) (clinical materials, infectious cultures, infected animals or arthropods)

West Nile virus (WNV) (dissection of field-collected dead birds, cultures, experimental animal and vector studies)

Western equine encephalitis virus (WEEV) (clinical materials, infectious cultures, infected animals or arthropods)

Yersinia pestis (antibiotic resistant strains, activities with high potential for droplet or aerosol production, large quantities or high concentrations, infected arthropods, potentially infected animals)

* ‘Large quantities or high concentrations’ refers to volumes or concentrations considerably in excess of those typically used for identification and typing activities. A risk assessment must be performed to determine if the quantity or concentration to be used carries an increased risk, and would therefore require aerosol control.

** ‘activities with high potential for aerosol generation’ include centrifugation

Appendix E: Aerosol Transmissible Disease Vaccination Recommendations for Susceptible Health Care Workers (Mandatory)

Vaccine	Schedule
Influenza	One dose annually
Measles	Two doses
Mumps	Two doses
Rubella	One dose
Tetanus, Diphtheria, and Acellular Pertussis (Tdap)	One dose, booster as recommended
Varicella-zoster (VZV)	Two doses

Source: California Department of Public Health, Immunization Branch

Immunity should be determined in consultation with *Epidemiology and Prevention of Vaccine-Preventable Diseases*.

Appendix F: Sample Screening Criteria for Work Settings Where No Health Care Providers Are Available (non-mandatory)

This appendix contains sample criteria to be used by non-medical employees for screening purposes in settings where no health care providers are available. Coordination with local health departments, including TB control programs, may be necessary for the success of this referral policy. Employees should be instructed in how clients' privacy will be maintained during screening procedures.

1. For screening a coughing client with potential TB – privately ask the person
 - a. if he/she has had a cough for more than three weeks.
 - b. if, in addition to cough, he/she has had one or more of the following clinical symptoms of TB disease:
 - Unexplained weight loss (>5lbs)
 - Night Sweats
 - Fever
 - Chronic Fatigue/Malaise
 - Coughing up blood

A person who has had a cough for more than three weeks and who has one of the other symptoms in b. must be referred to a health care provider for further evaluation, unless that person is already under treatment. Consider referring a person with any of the above symptoms, if there is no alternative explanation.

2. In addition to TB, other vaccine preventable aerosol transmissible diseases, including pertussis, measles, mumps, rubella (“German measles”) and chicken pox should be considered when non-medical personnel screen individuals in non-health care facilities. The following is a brief list of some findings that should prompt referral to a health care provider for further evaluation when identified through a screening process:
 - Severe coughing spasms, especially if persistent; coughing fits may interfere with eating, drinking and breathing
 - Fever, headache, muscle aches, tiredness, poor appetite followed by painful, swollen salivary glands, one side or both sides of face under jaw
 - Fever, chills, cough, runny nose, watery eyes associated with onset of an unexplained rash (diffuse rash or blister-type skin rash)
 - Fever, headache, stiff neck, possibly mental status changes
3. Any client who exhibits any of the above described findings and reports contact with individuals known to have any of these transmissible illnesses in the past 2-4 weeks should be promptly evaluated by a health care provider.
4. Health officials may issue alerts for community outbreaks of other diseases. They will provide screening criteria, and people must be referred to medical providers as recommended by the health officer.

Appendix G: Information for Respirator Fit-Test Screening (Mandatory if employer does not provide annual fit-test)

Respirators are an important means of reducing your exposure to infectious aerosols. Air purifying respirators provide a barrier to prevent health care workers from inhaling *Mycobacterium tuberculosis* and other pathogens. The level of protection a respirator provides is determined by the efficiency of the filter material and how well the facepiece fits or seals to your face.

Cal/OSHA regulations require that you be provided with a fit-test at the time of initial fitting, whenever a different size, make, model or style of respirator is used, and whenever you report a change in physical characteristics that may affect fit, such as major dental work, facial surgery or injury, or a change in weight.

Fit tests must also be repeated periodically, because people are not always aware of facial changes that may have affected the fit of the respirator. Generally, Cal/OSHA regulations require that fit-tests be repeated annually. The aerosol transmissible disease regulation permits employers to lengthen this interval to every two years for employees who are not exposed to high hazard procedures, such as bronchoscopies. However, if you believe that you need another fit-test to ensure that the respirator is fitting you correctly, you may request an additional fit-test, and your employer will provide it.

A respirator will not protect you if it does not fit, and if it is not worn properly. In addition to fit-testing, it is important for you to be aware of the size, make, model and style of respirator that fits you, and to understand and practice how to put the respirator on and take it off. It is particularly important to properly place the straps, and in some models, to adjust the straps and adjust the nose piece, so that it forms a snug seal on your face. During your annual training, you will be shown how to use a respirator.

Screening Questions (Answer Yes/No)

Have you had recent major dental work, facial injury or facial surgery since your last fit-test?

Have you had a significant weight gain or loss since your last fit-test?

Do you want to be provided with an additional fit-test for your current respirator?

Name _____

Date _____

Employee ID number _____

Date of fit-test (if provided) _____