

**September 28, 2005 Discussion Draft**  
**Cal/OSHA Airborne Infectious Disease Standard**

**Please Note:** This draft is provided solely for the purposes of discussion at the September 28, 2005 advisory meeting on controlling employee exposure to airborne infectious diseases, and is not a rulemaking proposal.

**Airborne Infectious Diseases**

**(a) Definitions**

**Acid-fast bacilli (AFB)** means bacteria that retain certain dyes after being washed in an acid solution. Most acid-fast organisms are mycobacteria.

**Accredited laboratory** means a laboratory that is licensed by the California Department of Health Services pursuant to Title 17 of the California Code of Regulations, or which has participated in a quality assurance program leading to a certification of competence administered by a governmental or private organization that tests and certifies laboratories.

**Airborne Infection Isolation room or area** means a room, area, booth, tent, or other enclosure that are 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 of Title 24, Part 4, for Isolation Rooms, or the requirements stated in subsection (d) of this standard

**Airborne Infection Isolation** means infection control procedures that are designed to reduce the risk of transmission of infectious agents through dissemination of either airborne droplet nuclei (small-particle residue [5 µm or smaller in size] of evaporated droplets that may remain suspended in the air for long periods of time) or dust particles containing the infectious agent. Airborne Infection Isolation procedures apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by the airborne route. (Ref CDC)

**Anergy** means the inability of a person to react to skin test antigens (even if the person is infected with the organisms tested) because of immunosuppression.

**BCG (Bacille Calmette-Guerin) vaccine** is a tuberculosis vaccine.

**CDC** means the United States Centers for Disease Control and Prevention.

**CDHS** means the California Department of Health Services.

**Chief** means the Chief of the Division of Occupational Safety and Health, Department of Industrial Relations.

**Clinical laboratory** is a laboratory or area of a facility that conducts routine and repetitive operations for the diagnosis of TB and other significant respiratory infectious diseases, such as preparing acid-fast smears and culturing sputa or other clinical specimens for identification, typing or susceptibility testing.

**Confirmed infectious state** is a disease state that has been diagnosed by positive identification of **M. tuberculosis** or other significant respiratory infectious pathogen from body fluid or tissue through positive culture, positive gene probe, positive polymerase chain reaction (PCR), or other diagnostic criteria accepted by the CDC or CDHS. The disease state must be capable of being transmitted to another individual (e.g.,

pulmonary or laryngeal TB or extrapulmonary TB where the infected tissue is exposed and could generate droplet nuclei).

**Director** means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

**Droplet Precautions** means infection control procedures 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  $\mu\text{m}$  in size) containing microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism. Droplets are generated from the source person primarily during coughing, sneezing, or talking and during the performance of certain procedures such as suctioning and bronchoscopy. Droplet Precautions apply to any patient known or suspected to be infected with epidemiologically important pathogens that can be transmitted by infectious droplets. (Ref CDC)

**Exposure incident** means an event in which an employee has been exposed to an individual with confirmed infectious TB or other confirmed significant respiratory infectious disease or to air containing aerosolized **M. tuberculosis** or significant respiratory infectious pathogens without the benefit of applicable exposure control measures required by this section.

**Field Operation** means an operation conducted by employees that is outside of a fixed establishment, such as paramedic and emergency medical services or transport, law enforcement outside of a fixed establishment, and home health care.

**First receiver** means an employee at a health care facility or operation, who is expected to receive victims from the site of hazardous substance release, as defined in Section 5192. A first receiver is located away from the site of the hazardous substance release, and therefore the possible exposure of first receivers is limited to the quantity of substance arriving at the hospital as a contaminant on victims and their clothing or personal effects

**High hazard procedures** means procedures performed on an individual with suspected or confirmed infectious tuberculosis or other confirmed significant respiratory infectious disease in which the potential for being exposed to **M. tuberculosis** or other significant respiratory infectious pathogens is increased due to the reasonably anticipated generation of aerosolized pathogens. Such procedures include, but are not limited to, sputum induction, bronchoscopy, endotracheal intubation or suctioning, aerosolized administration of pentamidine or other medications, and pulmonary function testing. They also include autopsy, clinical, surgical and laboratory procedures that may aerosolize significant respiratory infectious pathogens.

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

**Local Health Officer means** the health officer for the local jurisdiction responsible for receiving reports of communicable diseases, as defined in Title 17 of the California Code of Regulations.

**Medical Removal Protection** means the maintenance of earnings, seniority and other benefits specified in paragraph (g)(6) of this section for an employee who has confirmed

or suspected infectious TB or other significant respiratory infectious disease, or is unable to wear a respirator.

**M. tuberculosis** means *Mycobacterium tuberculosis*, the scientific name of the bacillus that causes tuberculosis.

**Negative pressure** means the relative air pressure difference between two areas. A room that is under negative pressure has lower pressure than adjacent areas, which keeps air from flowing out of the room and into adjacent rooms or areas.

**Occupational exposure** means reasonably anticipated contact, that results from the performance of an employee's duties, with an individual with suspected or confirmed infectious TB or other significant respiratory infectious disease or air that may contain aerosolized **M. tuberculosis** or other significant respiratory infectious pathogen.

**Physician or other licensed health care professional** means an individual whose legally permitted scope of 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 subsection (g) of this section.

**Respirator** means 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 the National Institute for Occupational Safety and Health (NIOSH).

**Significant respiratory infectious pathogen (SRIP)** means a pathogen identified by the CDC or the CDHS as requiring airborne infection isolation or droplet precautions, including **M. tuberculosis**.

**Significant respiratory infectious disease (SRID)** means a disease identified by the CDC or the CDHS as requiring airborne infection isolation, or droplet precautions, including tuberculosis.

**Suspected infectious state** means a potential disease state in which an individual is known, or with reasonable diligence should be known, by the employer to have one or more of the following conditions, unless the individual's condition has been medically determined to result from a cause other than TB or other significant respiratory infectious disease:

- (1) To be infected with **M. tuberculosis** and to have the signs or symptoms of TB;
- (2) To have a positive acid-fast bacilli (AFB) smear; or
- (3) To have a persistent cough lasting 3 or more weeks and two or more symptoms of active TB (e.g., bloody sputum, night sweats, weight loss, fever, anorexia). An individual with suspected infectious TB has neither confirmed infectious TB nor has he or she been medically determined to be noninfectious.
- (4) To meet the criteria described by the Centers for Disease Control or the California Department of Health Services of a suspect case for a significant respiratory infectious disease.

**Source Containment** means the use of procedures, engineering controls, or personal protective devices to minimize the spread of airborne particles and droplets from an individual who has or may have a significant respiratory disease, eg. cough etiquette.

**Surge** means a rapid expansion beyond normal services to meet the increased demand for qualified personnel, medical care and public health in the event of large-scale public health emergencies or disasters.

**TB Conversion** means a change in tuberculosis infection test results from negative to positive, based upon current Centers for Disease Control and Prevention (CDC)

guidelines.

**Test for tuberculosis infection (TB Test)** means any test, including the Tuberculin skin test which has been approved by the Food and Drug Administration for the purposes of detecting tuberculosis infection, is recommended by the Centers for Disease Control for testing for tuberculosis infection in the environment in which it is used, and which is administered, performed, analyzed and evaluated in accordance with those approvals and guidelines.

**Tuberculin skin test** means a method used to evaluate the likelihood that a person is infected with **M. tuberculosis**. The method utilizes an intradermal injection of tuberculin antigen with subsequent measurement of the reaction induration. It is also referred to as a PPD skin test.

**Tuberculosis (TB)** means a disease caused by **M. tuberculosis**.

**Tuberculosis infection** means a condition in which living **M. tuberculosis** bacilli are present in the body without producing clinically active disease. Although the infected individual has a positive tuberculin skin test reaction or other positive TB Test reaction, he or she may have no symptoms related to the infection and may not be capable of transmitting the disease.

**Tuberculosis disease** is a condition in which living **M. tuberculosis** bacilli are present in the body, producing clinical illness. The individual may or may not be infectious.

**Two-step testing** is a baseline skin testing procedure used to identify a boosted skin test reaction from that of a new infection. The procedure involves placing a second skin test 1 to 3 weeks after an initial negative test. A positive reaction on the second test indicates a boosted reaction.

**(b) Scope & application.** This section applies to occupational exposure to tuberculosis (TB) and other significant respiratory infectious disease or pathogens occurring:

- (1) In hospitals and other healthcare facilities having point of first contact with potentially infected persons, or persons arriving from the scene of a release of biological agents, as defined in Section 5192;
- (2) In emergency response to releases of biological agents, as defined in Section 5192.
- (3) In field operations that have the potential for occupational exposure including paramedics and emergency medical transport, first receivers, and fire and police personnel.
- (4) In long term care facilities
- (5) In correctional facilities and other facilities that house inmates or detainees;
- (6) In hospices;
- (7) In shelters, and outreach and administrative services for the homeless and
- (8) In facilities that offer treatment for drug abuse;
- (9) In facilities where high-hazard procedures (as defined by this section) are performed;
- (10) In home health care services and in other community-based services in which there is an elevated potential for occupational exposure to SRIP.
- (11) In any other workplace or type of workplace in which the CDC or CDHS determines that there is an elevated risk of infection with significant respiratory infectious pathogens.
- (12) In laboratories that handle specimens that may contain **M. tuberculosis** or other significant respiratory infectious pathogens, or process or maintain the resulting cultures, or perform related activity that may result in the aerosolization of **M. tuberculosis** or other significant respiratory infectious pathogens or other pathogens that may be

infectious when aerosolized by laboratory procedures;

**Note to subsection (b)(2):** Emergency response personnel at the site of a hazardous substance release, or who may be reasonably anticipated to be exposed to unknown or IDLH quantities of hazardous substances, as defined in section 5192, must also be protected as required by section 5192(q).

**Note to subsection (b):** Occupational exposure incurred in any of the work settings listed in paragraphs (b)(1) through (b)(11) of this section by temporary or contract employees or by personnel who service or repair air systems or equipment or who renovate, repair, or maintain areas of buildings that may reasonably be anticipated to contain aerosolized **M. tuberculosis** or other significant respiratory infectious pathogens is covered by this section.

### **(c) Infectious Disease Exposure Control Plan**

#### **(1) Written plan.**

(A) Each employer having an employee(s) with occupational exposure as defined by subsection (b)(1) through (b)(11) of this section shall establish, implement and maintain an effective Infectious Disease Exposure Control Plan (Plan) which is designed to eliminate or minimize employee exposure.

(B) The Plan shall be in writing and shall contain at least the following elements:

1. The exposure determination required by subsection (c)(2);
2. The schedule and method of implementation for each of the applicable subsections: engineering controls, work practice controls, personal protective equipment, respiratory protection, vaccination, medical surveillance, training, hazard communications, and record-keeping [reference to appropriate subsection]. Specific engineering, work practice, personal protective and respiratory protective control measures shall be listed for each task in which occupational exposure occurs for routine procedures and for surge and emergency response conditions;
3. An effective procedure for the evaluation of circumstances surrounding exposure incidents;
4. An effective procedure for identifying currently available engineering controls, and selecting such controls, where appropriate, for the procedures performed by employees in their respective work areas or departments;
5. An effective procedure for obtaining the active involvement of employees in reviewing and updating the exposure control plan with respect to the procedures performed by employees in their respective work areas or departments;
6. An effective system for informing employees about the suspected or confirmed infectious disease status of patients;
7. An effective procedure for communicating with the local health officer regarding an exposure incident.
8. An effective procedure for communicating with other employers with exposed employees, regarding an exposure incident.

(C) Each employer shall ensure that a copy of the Plan is accessible to employees in accordance with Section 3204(e).

(D) The Plan shall be reviewed and updated at least annually and whenever necessary as follows:

1. When the CDC or the CDHS announces that additional pathogen(s) require droplet precautions or airborne infection isolation, revises definitions for a suspected case of a

significant respiratory infectious disease, or revises recommendations for control measures for significant respiratory infectious diseases;

2. To reflect new or modified tasks and procedures which affect occupational exposure;

3. To reflect changes in technology that eliminates or reduces exposure to M.

Tuberculosis and other significant respiratory infectious pathogens;

4. To include new or revised employee positions with occupational exposure;

5. To review and evaluate the exposure incidents which occurred since the previous update; and

6. To review and respond to information indicating that the Plan is deficient in any area.

(E) Employees responsible for direct patient care. In addition to complying with subsections (c)(1)(B)5., the employer shall solicit input from non-managerial employees responsible for direct patient care in the identification, evaluation, and selection of effective engineering and work practice controls, and shall document the solicitation in the Plan.

(F) The Plan shall be made available to the Chief or the Director or their respective designee upon request for examination and copying.

**(2) Exposure Determination.**

(A) Each employer who has an employee(s) with occupational exposure as defined by subsection (a) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

1. A list of all job classifications in which all employees in those job classifications have occupational exposure;

2. A list of job classifications in which some employees have occupational exposure; and

3. A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of subsection (c)(2)(A)2. of this standard

4. A list of all high risk procedures performed by employees and the job classification in which employees are exposed to those procedures.

(B) This exposure determination shall be made without regard to the use of personal protective equipment.

**(d) Methods of Compliance: Work Practices, Engineering Controls**

(1) General. Work practices and engineering controls shall be used to eliminate or minimize employee exposures to significant respiratory infectious pathogens (SRIP).

(2) The work practices in the Infectious Disease Exposure Control Plan shall be developed, implemented and maintained to prevent or minimize employee exposures to airborne, droplet, and contact transmission of significant respiratory infectious pathogens (SRIP). These work practices shall include but not be limited to appropriate handwashing and gloving procedures; the use of respiratory, eye and face protection; the use of gowns and other protective apparel; and adequate disinfection of contaminated surfaces, articles and linens.

(3) Each employer shall develop and implement written risk reduction procedures to be followed at the point of first contact with potentially infected people. For fixed health care and correctional facilities, and in field operations and homeless shelters to the extent that it is practicable, these procedures shall incorporate the recommendations contained in the [name and date of new HICPAC document on infection control] for respiratory

etiquette, which is incorporated by reference. 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 containment practices implemented by the employer.

(4) Engineering controls shall be used in facilities that admit or provide medical services or AII to individuals with suspected or confirmed infectious TB or other SRID that requires airborne infection isolation, except in settings where home health care or home-based hospice care is being provided.

(5) Employers shall develop and implement engineering and work practice controls to protect employees who use or maintain vehicles that transport individuals with suspected or confirmed TB or other SRID. The employer shall give consideration to implementing barriers and ventilation systems, where practicable. Employers shall document the basis for their decision in the exposure control plan.

(6) Individuals with suspected or confirmed infectious TB or other significant respiratory infectious disease that requires airborne infection isolation, shall be identified and, except in settings where home health care or home-based hospice care is being provided, shall be:

(A) Provided with disposable tissues and hand hygiene materials and masked or segregated in such a manner that contact with employees who are not wearing respiratory protection is eliminated or minimized until transfer or placement in an Airborne Infection Isolation (AII) room or area can be accomplished and;

(B) Placed in an AII room or area or transferred to a facility with AII rooms. 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.

2. **Transfers to other facilities.** Transfers to other facilities shall occur within 16 hours of identification, unless the employer can document, at the end of 16 hours and at least every 24 hours thereafter that:

a. The employer has contacted the local health officer, and  
b. There is no AII room or area available within that jurisdiction, and  
c.. Reasonable efforts have been made to contact establishments outside of that jurisdiction, as provided within the exposure control plan, and  
d.. All measures recommended by the local health officer have been implemented,  
and

e. All susceptible employees who enter the room or area housing the individual are provided with, and use, respiratory protection in accordance with Section 5144.

Exception to Subsection (6)(A): Employers of employees who are included in this standard under subsection (b)(3) and (b)(7) and who determine that source containment procedures are not practicable in their operations do not need to comply with the requirements of Subsection (6)(A) if:

1. The basis of this determination is recorded in the exposure control plan; and  
2. Employees are trained in and use alternate control measures such as respiratory protection; and  
3. The practicability of source control measures is reviewed annually by effected employees and the program administrator.

- (7) High-hazard procedures shall be conducted in an AII room or area.
- (8) Specific requirements for Airborne Infection Isolation Rooms.
  - (A) Negative pressure shall be maintained in AII isolation rooms or areas. The ventilation rate shall be 12 or more air changes per hour. The required ventilation rate may be achieved in part by high efficiency particulate aerosol (HEPA) filtration, but in no case shall the ventilation rate be less than six ACH.
  - (B) Negative pressure shall be qualitatively demonstrated (e.g., by smoke trails) daily while a room or area is in use for TB or airborne infection isolation (see appendix).
  - (C) Engineering controls shall be maintained, and inspected and performance monitored for filter loading and leakage every 6 months, whenever filters are changed, and more often if necessary to maintain effectiveness (see appendix).
  - (D) Air from AII isolation 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.
  - (E) Ducts carrying air that may reasonably be anticipated to contain aerosolized **M. tuberculosis** or other SRIPs that require airborne infection isolation shall be maintained under negative pressure for their entire length before in-duct HEPA filtration or until the ducts exit the building for discharge.
  - (F) Doors and windows of AII rooms or areas shall be kept closed while in use for airborne 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.
  - (H) Hospital isolation rooms constructed in conformance with Title 24, Part 4, Chapter 4, Section 417 et seq, and which are maintained to meet those requirements, and are evaluated in accordance with subsection (d)(8)(B) and (d)(8)(C) shall be considered to be in compliance with subsection(d)(8).
- (9) When an AII room or area is vacated by an individual with suspected or confirmed infectious TB or other SRIP requiring airborne infection isolation, the room or area shall be ventilated according to current CDC recommendations for a removal efficiency of 99.9 % before permitting employees to enter without respiratory protection.
- (10) Decontamination facilities with appropriate engineering controls shall be provided for employees to clean and decontaminate vehicles, PPE and equipment.
- (11) The employer shall provide information about the infectious disease hazard to any contractor who provides temporary or contract employees who may incur occupational exposure so that the contractor can institute precautions to protect his or her employees.
- (12) Response to the site of releases of pathogenic organisms shall be conducted in accordance with Section 5192, Hazardous Waste Operations and Emergency Response.
- (13) Surge capacity. Employers who will provide medical care for mass disease outbreaks or exposures to pathogenic organisms shall establish work practices and procedures, including patient isolation, the provision of decontamination facilities, appropriate personal protective equipment and respiratory protective equipment, for such events. Employees designated to provide care under these circumstances shall be trained in these practices and procedures

**(e) Laboratories**

- (1) This subsection shall apply to employers with a laboratory or using laboratory procedures for culturing, identifying, or modifying organisms, or their derivatives,

capable of causing significant respiratory infectious diseases or capable of transmitting disease via aerosolization from laboratory procedures.

(2) **Biosafety plan:** the employer shall establish, implement and maintain an effective biosafety plan, to minimize employee exposures to airborne infectious disease organisms.

[A] The plan shall identify a person with the authority and responsibility for implementing the plan and making an exposure determination as specified in subsection (c)(2).

[B] The plan may be integrated with an existing Exposure Control Plan for bloodborne pathogens or an Infectious Disease Exposure Control Plan as described in subsection (c).

[C] The plan shall establish a containment matrix that will implement the use of engineering controls that are appropriate for the hazard level of the organism or its derivatives as defined by Biosafety in Microbiological and Biomedical Laboratories, [quote latest edition], which is hereby incorporated by reference. The matrix shall also establish work practice controls, and appropriate PPE including respiratory protective equipment. The use of respiratory protective equipment shall be in accordance with subsection (f) and Section 5144.

[D] The plan shall establish safe handling procedures and prohibit practices, such as sniffing, that increase employee exposure to infectious agents including whole organisms or their derivatives.

[E] The plan shall establish emergency procedures for uncontrolled releases within the laboratory facility and untreated releases outside the laboratory facility which shall include a procedure and means of reporting such incidents to local health officers and other appropriate agencies. These procedures shall be tested and verified with those agencies.

[F] The plan shall include a medical surveillance program consistent with subsection (g).

[G] The plan shall include communication of hazards and training consistent with subsection (h).

[H] The plan shall 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.

(2). Recordkeeping shall be in accordance with subsection (i).

**(f) Respiratory Protection**

(1) Respirators provided for compliance with this section shall be approved by the National Institute for Occupational Safety and Health for the purpose for which they are used. The employer shall select respirators that are at least as effective as those specified in CDC and CDHS guidelines in controlling employee exposures to bloodborne pathogens.

(2) Employers shall provide a powered air purifying respirator equipped with N, P or R 100 filters or supplied air respirators to each employee:

Who performs high-hazard procedures on individuals with suspected or confirmed TB or other SRID

Who can not be fit-tested for a tight-fitting facepiece respirator

for whom a PLHCP recommends the use of a PAPR

who requests to use a PAPR

who is a "first receiver" for individuals who have been exposed to a release of biological agents

Exception to subsection (f)(2): Employers who document the basis for their decision that this not practicable for a given set of procedures, facilities, or operations may use other NIOSH approved respirators, so long as they provide a protection factor equal to or greater than respirators recommended by the CDC or DHS for the situation. This decision shall be reviewed annually during the review of the respiratory protection program required by section 5144.

(3) Employers shall provide a respirator to each employee who:

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

(B) Is present during the performance of procedures or services for an individual with suspected or confirmed infectious TB or SRID who is not masked; or

(C) Transports an individual with suspected or confirmed infectious TB or SRID in an enclosed vehicle (e.g., ambulance, helicopter, police car) or who transports an individual with suspected or confirmed infectious TB or SRID within the facility when that individual is not masked; or

(D) Repairs, replaces, or maintains air systems or equipment that may reasonably be anticipated to contain or generate aerosolized **M. tuberculosis** or other SRIP; or

(E) Is working in an area occupied by an unmasked individual with suspected or confirmed infectious TB or other SRID and during decontamination procedures after the person has left the area; or

(F) Is working in a residence where an individual with suspected or confirmed infectious TB or other SRID is known to be present.

(4) The employer shall provide the respirator at no cost to the employee and shall assure that the employee uses the respirator in accordance with the requirements of this section, and section 5144, except as provided in subsection (f)(8).

(5) The employer shall assure that the employee dons the respirator before entering any of the work settings or performing any of the tasks set forth in subsection (f)(3) of this section and uses it until leaving the work setting or completing the task, regardless of other control measures in place.

(6) 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 paragraph (f)(3) of this section shall establish and implement a written respiratory protection program that meets the requirements of Section 5144, except as provided in subsection (f)(8).

(7) No employee shall be assigned a task requiring the use of a respirator if, based upon the employee's most recent evaluation, the physician or other licensed health care professional, determines that the employee will be unable to function adequately while wearing a respirator. If the physician or other licensed health care professional, determines that the employee's job activities must be limited, or that the employee must be removed from the employee's current job because of the employee's inability to wear a respirator, the limitation or removal shall be performed in accordance with paragraph (g)(8) of this section.

(8) The use of filtering facepiece respirators for the purpose of infection control shall comply with all provisions of this section and section 5144, with the following exceptions:

(A) Medical Evaluation. Medical evaluations solely for the use of filtering facepiece respirators for the purpose of infection control shall obtain the information contained in the questionnaire in Appendix B. The employer shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions --- through ---or whose initial medical examination demonstrates the need for a follow-up medical examination.

(B) Fit testing.

1. The employer shall perform either quantitative or qualitative face fit tests in accordance with the procedures outlined in appendix A to section 5144. 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 unless a minimum fit factor of one hundred (100) is obtained.

2. The employer shall assure that each employee who is assigned to use a filtering facepiece respirator passes a fit test:

a. At the time of initial fitting;

b. Whenever changes occur in the employee's facial characteristics which affect the fit of the respirator;

c. Whenever a different size, make, model or style of respirator is used; and

d. At least annually thereafter.

Exception to subsection (f)(8)(B)2.d.: Employers may increase the interval for repeat fit-testing to no more than two years for employees whose sole occupational exposure is anticipated to be during surge operations. In that case, the employer shall provide a fit-test within one week of any assignment to a task identified in subsection (f)(3) to any employee who had not been fit-tested within the previous 12 months.

(g) **Medical Surveillance**

(1) Each employer who has any employee with occupational exposure shall provide the employee with medical surveillance for tuberculosis and other SRID as recommended by the CDC and/or the CDHS. When an employer is also acting as the evaluating health care professional, the employer shall advise an employee following an exposure incident that the employee may refuse to consent to post-exposure evaluation and follow-up from the employer-healthcare professional. When consent is refused, the employer shall make immediately available to exposed employees a confidential medical evaluation and follow-up from a healthcare professional other than the exposed employee's employer.

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

(A) Provided at no cost to the employee;

(B) Provided at a reasonable time and place for the employee and during the employee's working hours;

(C) Performed by or under the supervision of a physician or other licensed health care professional, as appropriate; and

(D) Provided according to recommendations of CDC and/or CDHS current at the time these evaluations and procedures take place.

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

(4) The employer shall make available to all employees with occupational exposure all vaccinations and immunizations recommended by the CDC and/or the CDHS to protect employees from significant respiratory infectious diseases.

(A) Recommended vaccinations shall be made available after the employee has received the training required in subsection (h) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the recommended vaccination(s), antibody testing has revealed that the employee is immune, or the vaccine(s) is contraindicated for medical reasons.

(B) The employer shall make additional vaccination(s) available to employees within ten days of the issuance of new CDC or CDHS recommendations.

Exception: Where the employer can not implement these recommendations 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. This information shall be updated every 10 days.

(C) The employer shall not make participation in a prescreening program a prerequisite for receiving a vaccine, unless the CDC or CDHS guidelines recommend 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 within ten days of that request, in accordance with subsection (g)(4)(B).

(E) The employer shall assure that employees who decline to accept a recommended vaccination offered by the employer sign the statement in Appendix \_\_\_ for each recommended vaccine.

Exception to subsection (g)(4)(E) for annual influenza vaccination: In the place of a written declination, the employer may establish effective procedures to offer the influenza vaccine. These procedures shall be in writing, and shall include 1. the manner in which employees will be made aware of that the vaccine is available, and is provided at no cost and during working hours, and 2. the manner in which employees are informed about the benefits and risks of the vaccine and the risk of not taking the vaccine.

Information may be provided through postings, notices and/or announcements so long as the information is made available in a language and manner that is understood by the employees. Employers shall maintain records of employees who were vaccinated.

**(5) Exposure Incidents.**

(A) When the employer first identifies an individual with confirmed infectious TB or other SRID, the employer shall:

1. Notify each employee who has had an exposure incident involving that individual of his or her exposure; and
2. Provide post-exposure evaluation by a PLHCP knowledgeable about the specific disease, including prophylactic treatment as recommended. For M. tuberculosis, and other pathogens where recommended by the CDC or CDHS, this shall include testing of the isolate from the source individual for drug susceptibility, unless the employer can demonstrate that this determination is not feasible.
3. Obtain from the PLHCP a written opinion, as described in subsection (g)(7).
4. Notify the local health officer, and any employers of employees who provided care or transport to the confirmed case.

Note: These employees may include, but are not limited to, paramedics, emergency medical technicians, emergency responders, home health care personnel, homeless shelter personnel, and referring health care facilities or agencies.

(B) **Information Provided to the Physician or Other Licensed Health Care Professional.**

The employer shall ensure that the PLHCP evaluating an employee after an exposure incident is provided information in accordance with subsection (g)(6).

(C) When an exposure incident or a TB Test conversion occurs, the employer shall investigate and document the circumstances surrounding the exposure incident or conversion (**e.g.** failure of engineering controls or work practices, respiratory and personal protective equipment, and events leading to the exposure incident) to determine if changes can be instituted to prevent similar occurrences in the future.

**(6) Information Provided to Physician or Other Licensed Health Care Professionals.**

(A) Each employer shall assure that all PLHCPs responsible for making determinations and performing procedures as part of the medical surveillance program are provided a copy of this regulation, applicable CDC and CDHS guidelines, and, for those employees required to wear respirators under this section, information regarding the type of respiratory protection used, a description of the work effort required, any special environmental conditions (**e.g.**, heat, confined space entry), additional requirements for protective clothing and equipment, and the duration and frequency of usage of the respirator.

(B) Each employer shall assure 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. Circumstances under which the exposure incident occurred;
3. Any diagnostic test results, including drug susceptibility pattern or other information relating to the source of exposure which could assist in the medical management of the employee; and
4. All of the employee's medical records relevant to the management of the employee, including tuberculin skin testing and other relevant testing for SRIP infections, and vaccination status.

**(7) Written Opinion from the Physician or Other Licensed Health Care Provider.**

(A) Each employer shall obtain and provide the employee with a copy of the written opinion of the physician or other licensed health care professional, as appropriate, within 15 days of the completion of all medical evaluations required by this section.

(B) For exposure incidents, the written opinion shall be limited to the following information:

1. The employee's TB Test status or applicable SRID test status;
2. The employee's infectivity status;
3. A statement that the employee has been informed of the results of the medical evaluation;
4. A statement that the employee has been told about any medical conditions resulting from exposure to TB or other SRID that require further evaluation or treatment;
5. Recommendations for medical removal or work restrictions

(C) For respirator medical evaluations, the PLHCP's written opinion shall be limited to whether the employee's ability to wear a respirator, any limitations on its use, and the need, if any, for follow-up medical evaluations.

(C) All other findings or diagnoses shall remain confidential and shall not be included in the written report.

**(8) Medical Removal Protection**

(A) Each employee with suspected or confirmed infectious TB or other SRID shall be removed from the workplace until determined to be noninfectious.

(B) For each employee who is removed from the workplace under paragraph (g)(8)(A) of this section, the employer shall maintain the total normal 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 the employee's job or otherwise medically limited until the employee is determined to be noninfectious or for a maximum of 18 months, whichever comes first.

(C) For each employee who is removed from his or her job under paragraph (f)(7), Respiratory Protection, of this section the employer shall transfer the employee to comparable work for which the employee is qualified or can be trained in a short period (up to 6 months), where the use of respiratory protection is not required. The employer shall maintain the total normal earnings, seniority, and all other employee rights and benefits. If there is no such work available, the employer shall maintain the employee's total normal earnings, seniority, and all other employee rights and benefits until such work becomes available or for a maximum of 18 months, whichever comes first.

(D) An employer's obligation to provide earnings, seniority and other benefits to a removed employee may be reduced to the extent that the employee receives compensation for earnings lost during the period of removal either from a publicly or employer-funded compensation program or from employment with another employer made possible by virtue of the employee's removal.

**(h) Training**

(1) Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.

(2) Training shall be provided as follows:

(A) At the time of initial assignment to tasks where occupational exposure may take place;

(B) At least annually thereafter.

(C) For employees who have received training on airborne infectious diseases in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

(D) Annual training for all employees shall be provided within twelve months of their previous training.

(E) Employers shall provide additional training when changes, such as introduction of new engineering, administrative or work practice controls, modification of tasks or procedures or institution of new tasks or procedures, affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(3) The training program shall contain at a minimum the following elements:

(A) Copy and Explanation of Standard. An accessible copy of the regulatory text of this standard and an explanation of its contents.

- (B) Epidemiology and Symptoms. A general explanation of the epidemiology and symptoms of respiratory infectious diseases, including definitions for suspect cases of significant respiratory infectious diseases.
- (C) Modes of Transmission. An explanation of the modes of transmission of respiratory infectious pathogens.
- (D) Employer's Exposure Control Plan. An explanation of the employer's exposure control plan and/or biosafety plan, and the means by which the employee can obtain a copy of the written plan.
- (E) Risk Identification. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to airborne infectious pathogens.
- (F) Methods of Compliance. An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, administrative or work practice controls and personal protective equipment. This shall include a description of the employer's source control measures.
- (G) Personal Protective Equipment. An explanation of the basis for selection of personal protective equipment and its uses and limitations.
- (H) Decontamination and Disposal. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
- (I) The employer's medical surveillance program.
- (J) Respiratory Protection, in accordance with the provisions of Section 5144.
- (K) Vaccination. Information on the available vaccines, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
- (L) Emergency. Information on the appropriate actions to take and persons to contact in an emergency involving significant respiratory infectious diseases.
- (M) Exposure Incident. 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.
- (N) Interactive Questions and Answers. An opportunity for interactive questions and answers with the person conducting the training session.
- (4) In addition to the training required in subsection (h)(3), first receivers shall be provided with the appropriate training in accordance with Section 5192(q). At a minimum this training shall include first responder operations level training, as well as training in personal protective equipment and decontamination procedures. The designated supervisor(s) of first receiver operations shall receive training equivalent to Section 5192(q) for incident commander.
- (5) Employees designated to respond to surge conditions at healthcare facilities shall receive additional training that covers the plan for surge receiving and treatment, how to access supplies needed for the response including personal protective equipment, decontamination facilities and procedures, and respiratory protection, and how to coordinate with emergency response personnel from other agencies.
- (6) Training material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.
- (i) **Record-keeping**
- (1) Medical Records.

(A) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with Section 3204.

(B) This record shall include:

1. The name and social security number of the employee;
2. A copy of the employee's vaccination status including the dates of all vaccinations and any medical records relative to the employee's ability to receive vaccination as required by subsection (g)(2);
3. A copy of all results of examinations, medical testing, and follow-up procedures as required by subsection (g);
4. The employer's copy of the healthcare professional's written opinion as required by subsection (g); and
5. A copy of the information provided to the healthcare professional as required by subsections (g).

(C) Confidentiality. The employer shall ensure that employee medical records required by subsection (g) 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 required by this section or as may be required by law.

(D) The employer shall maintain the records required by subsection (g) for at least the duration of employment plus 30 years in accordance with Section 3204.

(2) Employee illness resulting from occupational exposures or medical removal as defined by this standard shall be recorded on the Cal/OSHA Forms 301, 300, and 300A in accordance with section 14300 of the Division of Labor Statistics and Research standards.

(3) Training Records.

(A) Training records shall include the following information:

1. The dates of the training sessions;
2. The contents or a summary of the training sessions;
3. The names and qualifications of persons conducting the training; 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.

(4) Availability.

(A) The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Chief and NIOSH for examination and copying.

(B) Employee training records required by this subsection shall be provided upon request for examination and copying to employees, to employee representatives, to the Chief, and to NIOSH.

(C) Employee medical records required by this subsection shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Chief, and to NIOSH in accordance with Section 3204.

(5) Transfer of Records.

(A) The employer shall comply with the requirements involving transfer of records set forth in Section 3204.

(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 NIOSH, at least three months prior to their disposal and transmit them to the NIOSH, if required by the NIOSH to do so, within that three month period.