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Attachment No. 2

INITIAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Division 1, Chapter 4, Subchapter 7, Group 16, Article 109, New Section 5199.1
of the General Industry Safety Orders

Aerosol Transmissible Diseases - ZoonoticSUMMARY

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

Proposed Section 5199.1 would establish minimum requirements for protecting employees who are exposed to animals and animal products or wastes that are known or suspected to be carriers of zoonotic diseases, such as avian influenza, that can be transmitted to humans from aerosolized infectious particles and can cause human disease. This section would require employers included within the scope of the standard to develop control measures that would reduce the risk of infection for employees, based on the nature of the exposure, the type of work setting, and the level of recognized risk. With the assistance of an advisory committee, the Division of Occupational Safety and Health (Division) developed this proposal to reduce the likelihood that the employees who have occupations with an elevated risk of exposure will become infected by an aerosol transmissible disease.

There is no existing federal OSHA standard that specifically and comprehensively addresses occupational exposure to zoonotic aerosol transmissible diseases.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

The purpose and factual basis of the standard proposed to be adopted as a permanent rule are outlined below:

New Section 5199.1. Operations involving animals infected with aerosol transmissible pathogens.

The section proposed to be adopted as a permanent rule is to be placed in Article 109, Hazardous Substances.

Subsection (a) Scope, Application and Definitions.

Subsection (a)(1) Scope.

Proposed subsection (a)(1) would apply to establishments and operations that have an elevated risk of exposure to diseases that are transmitted from animals to humans by aerosolized particles. The proposed subsection identifies the occupational settings that would be required to comply with the provisions of proposed Section 5199.1. The proposed subsection would enable employers and employees to determine if the requirements apply to their specific work settings.

The factual basis for including these employers is provided by the outbreaks in California agricultural settings within the last few years of Exotic Newcastle Disease (END) and bovine tuberculosis (bovine TB); human cases of avian influenza as a result of exposures to wild birds and poultry as documented in Asia, Europe and Africa (H5N1),^{1,2} Canada (H7N3)³ and the Netherlands (H7N7);⁴ and exposures to Q fever and other zoonotic diseases in research institutions, veterinary operations, laboratories, pet stores and zoos.⁵ The United States Centers for Disease Control and Prevention (CDC) has also identified other occupational settings where there have been zoonotic disease occurrences, and the agency reports research indicating that 75% of emerging infectious diseases are zoonotic.⁶ This subsection is needed to limit the scope of this section to those environments with increased risk of exposure to zoonotic aerosol transmissible diseases, and to provide notice to affected employers of their responsibilities under the proposed standard. The intended effect of including these settings is to include the settings in which there is an increased risk of exposure to a zoonotic aerosol transmissible pathogen (zoonotic ATP). The rationale for including these settings is as follows:

Subsection (a)(1)(A)1. Operations involving the management, capture, sampling and disposal of wild birds or other wildlife.

This category of employers includes wildlife management operations, park services, game preserves, and similar operations that deal directly with wild animals. Various species of wildlife are the reservoirs for zoonotic ATPs that include but are not limited to: avian influenza, histoplasmosis, hantavirus, and monkeypox. Examples of hazards in these work settings include the CDC report of confirmed cases of wildlife professionals who became infected with the H1N9 avian influenza A in 2004 from handling wild fowl,⁷ and the Division investigation of hantavirus exposure to field biologists.⁸

Subsection (a)(1)(A)2. Farms producing animals or animal products, including the transport of animals and untreated animal products, byproducts, or wastes to or from farms.

¹ Chotpitayasonondh T, Ungchusak K, Hanshaoworakul W, Chunsuthiwat S, Sawanpanyalert P, Kijphati R, et al. Human disease from influenza A (H5N1), Thailand, 2004. *Emerg Infect Dis* [serial on the Internet]. 2005 Feb [date cited]. Available from <http://www.cdc.gov/ncidod/EID/vol11no02/04-1061.htm>

² Bartlett, John G Planning for Avian Influenza, *Annals of Internal Medicine* 2006, 18 July. Volume 145 #2; 141-144

³ Tweed SA, Skowronski DM, David ST, Larder A, Petric M, Lees M, et al. Human illness from avian influenza H7N3, British Columbia. *Emerg Infect Dis* [serial on the Internet]. 2004 Dec]. Available from <http://www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm>

⁴ A. Bosman, YM Mulder, JRI de Leeuw, A. Meijer, M Du Ry Van Beest Holle, RA Kamst, PG van der Velden, MAE Conyn-van Spaendonck, MPG Koopmans, MWMM Ruijten, "Executive Summary Avian Flu Epidemic 2003: Public Health Consequences", RIVM report 630940004/2004

⁵ Gold, D. Memo to File, January 12, 2007

⁶ Chomel BB, Belotto A, Meslin F-X, Wildlife, Exotic Pets, and Emerging Zoonoses *Emerging Infectious Diseases* Volume 13, Number 1 January 2007 (serial on the internet)

⁷ Gill, James S. et al. Avian Influenza Among Waterfowl Hunters and Wildlife Professionals. *Emerging Infectious Diseases*, Vol. 12, Number 8, August 2006

⁸ Gold, D. Memo to File, January 12, 2007

Farms have a variety of animals that are potential sources of zoonotic ATP's such as bovine TB, swine flu, Q fever, and avian influenza. Examples of the hazards in these work settings include the recent outbreak of bovine TB, which can be transmitted to humans, in three California dairy herds in 2002 and 2003,⁹ and cases of conjunctivitis in employees participating in the response to a 2002 California outbreak of Exotic Newcastle Disease.¹⁰

Subsection (a)(1)(A)3. Slaughterhouses and processing facilities for untreated animal products, byproducts, or wastes.

Processing meat, meat byproducts and wastes can expose employees to zoonotic ATPs such as bovine TB, swine flu, Q fever, avian influenza, and anthrax. Examples of the hazards in these work settings include the detection of bovine TB in an animal at a slaughterhouse during the 2002 outbreak in California mentioned previously and the detection of anthrax in untreated animal hides.¹¹

Subsection (a)(1)(A)4. Veterinary, animal inspection and other animal health operations.

Veterinarians and their assistants can be exposed to a variety of endemic and exotic zoonotic pathogens, depending on the sources of the animals that they treat or inspect. Examples of such diseases would include avian influenza, psittacosis (avian chlamydiosis), Q fever, bovine TB, monkeypox, and anthrax. This is demonstrated by the recent death in Holland of a veterinarian who was screening poultry during a 2003 outbreak of H7N7 avian influenza; and acquired flu-like symptoms leading to pneumonia and death.¹² Veterinarians in the California Department of Food and Agriculture (CDFA) and private veterinarians would have similar duties in an avian flu outbreak in California poultry. The CDC reported that a Belgian veterinarian involved in handling eagles smuggled from Thailand and infected with highly pathogenic H5N1 influenza developed conjunctivitis.¹³

Subsection (a)(1)(A)5. Importers of live animals and untreated animal products.

Importers handling exotic animals or untreated animal products can be exposed to the zoonotic aerosol transmissible diseases (ZATDs) endemic to the places of origin of the animals or products. Examples of such diseases would include anthrax, avian influenza, psittacosis, Q fever, and monkeypox. This was demonstrated by a case reported by CDC of a man in New York who contracted anthrax by handling contaminated hides imported from Africa.¹⁴

⁹ California Dept. of Food and Agriculture, Animal Health Branch, Bovine Tuberculosis: An Update for California Livestock Producers, December 2005

¹⁰ Corn, J. Exotic Newcastle Disease Outbreak, Southeastern Cooperative Wildlife Disease Study Volume 18 Number 4

¹¹ Walsh, J. Inhalation Anthrax Associated with Dried Animal Hides—Pennsylvania and New York City, 2006 MMWR March 17, 2006/55(10); 280-282

¹² Fouchier, Ron A. M. Avian influenza A virus (H7N7) associated with human conjunctivitis and a fatal case of acute respiratory distress syndrome Proceedings of the National Academy of Sciences *PNAS* 2004;101;1356-1361; originally published online Jan 26, 2004 p. 1358

¹³ Van Borm, S et al, Highly pathogenic H5N1 influenza virus in smuggled eagles, Belgium, Emerging Infectious Diseases Vol. 11 number 05 May 2005

¹⁴ Walsh, J. Inhalation Anthrax Associated with Dried Animal Hides—Pennsylvania and New York City, 2006 MMWR March 17, 2006/55(10); 280-282

Subsection (a)(1)(A)6. Zoos, animal parks, pet stores and other operations in which animals are displayed or housed.

Facilities exhibiting animals for education, pet stores, or facilities sheltering animals have the potential for exposures to diseases that may be harbored by those animals. From 1979 to 2004, the Division had in place a special order due to exposures to Q fever from sheep at the University of California, San Francisco.¹⁵ The CDC reported that from 1987 through 1996, there were 831 reported cases of psittacosis. Of these, about 10% of the cases occurred in pet shop employees.¹⁶ The CDC also reported that twelve animal handlers contracted TB from elephants in an exotic animal farm in Illinois.¹⁷ The American Zoo and Aquarium Association has issued guidelines regarding avian influenza.¹⁸

Subsection (a)(1)(A)7. Laboratory operations involving samples, cultures, or other materials potentially containing zoonotic ATPs.

Laboratory operations have employees who work with materials of animal origin that may contain organisms that are zoonotic or human pathogens and can become aerosolized in the course of conducting procedures such as centrifuging or working with cultures. An example of this is brucellosis which is a widespread zoonosis and which may be contracted in the laboratory.¹⁹

Subsection (a)(1)(A)8. Operations involving the cleanup, decontamination, or disinfection of areas potentially contaminated with zoonotic aerosol transmissible pathogens.

Employees who clean, decontaminate, or disinfect areas in which contaminated materials such as wastes may be present are potentially exposed to zoonotic ATPs such as avian influenza and to bacteria which grow on organic matter.

Subsection (a)(1)(B)

Subsection (a)(1)(B) would exempt from the scope of this section restaurants and other operations involving the handling of animal products that have been inspected and approved or certified for public consumption or use by the United States Department of Agriculture (USDA) or the CDFA, such as meat or poultry that will enter the food supply. The exception is provided since the inspection process is intended to remove potentially harmful, diseased animal products from the supply stream to protect the general public. This should, in turn, protect employees in settings that handle the inspected products. The exception is needed to exclude work settings that do not have an elevated risk of exposure from the requirements of the proposed standard.

Subsection (a)(2) Application.

¹⁵ Gold, D. Memo to File, January 12, 2007

¹⁶ William B. Johnston, et al, Compendium of Measures To Control *Chlamydia psittaci* Infection Among Humans (Psittacosis) and Pet Birds (Avian Chlamydiosis), 2000 MMWR July 14, 2000/49(RR08); 1-17

¹⁷ National Association of State Public Health Veterinarians, Compendium of Measures To Prevent Disease Associated with Animals in Public Settings, 2005 March 25, 2005/54(RR04); 1-12

¹⁸ Flores, Graciela. United States zoos prepare for avian influenza. News from the Scientist. 6(1): 2005

¹⁹ Noviello S, Gallo R, Kelly M, Limberger RJ, DeAngelis K, Cain L, et al. Laboratory-acquired brucellosis. Emerg Infect Dis [serial on the Internet]. 2004 Oct [date cited]. Available from <http://www.cdc.gov/ncidod/EID/vol10no10/04-0076.htm>

This subsection would provide a tiered set of requirements for control measures based upon the zoonotic disease risk and the type of work operations. The purpose of this subsection is to direct employers with each type of work operation to the section of the standard that contains the applicable requirements.

Subsection (a)(2)(A) would require all employers listed in subsection (a)(1)(A) to adopt and use effective control measures as part of the employer's Injury and Illness Prevention Plan (IIPP) as set forth in Section 3203. This subsection is intended to relieve employers who do not meet the criteria in subsections (A)(2)(B) through (A)(2)(F) from compliance with other provisions of this section. It is intended that those employers adopt hazard reduction measures in their IIPP including sanitation and biosecurity measures, the proper selection and use of personal protective equipment that is appropriate for the hazard and route of exposure, training, and the investigation of occupational injuries and illnesses. This includes training the employees to apply these measures in an effective manner by providing the information in the appropriate language and literacy level. The factual basis for this requirement is found in the compliance experience of the Division involving employee exposures to zoonotic diseases. The Division has found deficiencies relating to Section 3203 in cases involving zoonotic diseases such as bovine TB, hantavirus, and leptospirosis.²⁰ The necessity for this is to ensure that employers are aware of their existing responsibilities under Section 3203 to identify hazards relating to zoonotic aerosol transmissible pathogens and to provide effective control measures. This subsection contains a clarifying statement that this section does not preclude the application of Section 3203 to other zoonotic disease hazards.

Subsection (a)(2)(B) would require additional control measures to protect employees who capture or sample animals for the presence of infection with zoonotic ATPs, or the collection and disposal of animals for which an alert regarding the potential of zoonotic infection has been issued by designated agencies, which include the CDC, the California Department of Public Health (CDPH), the California Department of Fish and Game (CDFG), the USDA, and the United States Department of the Interior (USDO I). These measures are described in subsections (b) and (e). This subsection is needed to direct employers and employees to the applicable portions of the standard.

Subsection (a)(2)(C) would require an employer that has been placed under an infection control order such as a quarantine or movement restriction by the USDA or CDFA to adopt additional control measures to protect employees. These measures are described in subsections (c) and (e). This subsection is needed to direct employers and employees to the applicable portions of the standard.

Subsection (a)(2)(D) would require employers with work operations involving the handling, culling, transport, killing, eradication, or disposal of animals infected, or suspected of being infected, with zoonotic ATPs, or the cleaning and disinfection of areas that contain or contained those animals, to adopt appropriate control measures for those operations. These measures are described in subsections (d) and (e). This subsection is needed to direct employers and employees to the applicable portions of the standard.

Subsection (a)(2)(E) would require that laboratory operations that process samples, cultures, or other materials potentially containing zoonotic ATPs, comply with Section 5199(f). This subsection is intended to relieve laboratories who do not meet other criteria in subsection (a)(2)(B) through (a)(2)(D) or (a)(2)(F) from compliance with other requirements of this section. It directs laboratory employers to comply with Section 5199(f) which requires a biosafety plan and other control measures applicable to laboratory

²⁰ Gold, D. Memo to File, January 12, 2007

operations. This subsection is needed to ensure that laboratories develop appropriate control measures including a biosafety plan.

Subsection (a)(2)(F) informs employers that this proposed standard does not supersede Section 5192 and that hazardous waste or emergency response operations, as defined in Section 5192, must also comply with that section. This is necessary to be consistent with existing sections of Title 8 and the equivalent federal standard.

Subsection (a)(3)

The purpose of subsection (a)(3) is to provide notice to the regulated public of requirements that all safeguards required by this section, including personal protective equipment, respirators, medical surveillance and treatment, and training, are to be provided at no cost to the employee at a reasonable time and place for employees, and during the employee's working hours. This is intended to provide notice to the regulated public of an existing requirement of Labor Code Section 6311, as interpreted by the courts.²¹ This is necessary in order that employees and employers understand their responsibilities under this standard, and that employees are not prevented from participating in medical surveillance or training, or using other required safeguards by cost or impediments to access.

Subsection (a)(4) Definitions.

This proposed standard includes a number of definitions that would explain the terminology and concepts that have been incorporated into the text. The necessity for the definitions is to clearly explain the terminology and ensure that the terms in the text are understood in the appropriate context, noting that the standard applies to a variety of establishments that do not share terminology, technology, or procedures.

Subsection (b) Exposure to potentially infectious wildlife.

Proposed subsection (b) would establish specific requirements for employers with operations involving the sampling or capturing of potentially infected wildlife, or the collection and disposal of dead animals, for which an alert has been issued by one of the referenced agencies. The intended effect is to establish control methods that are the most appropriate for these employers. The necessity for these requirements is discussed under subsection (a)(2)(B).

Subsection (b)(1) would require an employer to develop and implement written procedures that are to be followed for sampling or capturing wild animals to test them for the presence of zoonotic ATPs once an alert for the disease has been issued by one of the specified agencies. These procedures must establish appropriate protective measures that the employees will use. An employer whose employees will collect or dispose of animals for which an alert has been issued would also be required to develop and implement control measures.

Subsection (b)(2) specifies that the procedures would include work practices that minimize the production of aerosols such as the use of an inverted plastic bag to pick up individual bird carcasses. The subsection

²¹ BENDIX FOREST PRODUCTS CORPORATION, Petitioner, v. DIVISION OF OCCUPATIONAL SAFETY AND HEALTH, Respondent, S.F. No. 24018. Supreme Court of California. 25 Cal. 3d 465; 600 P.2d 1339; 158 Cal. Rptr. 882; 1979 Cal. LEXIS 318

further requires the use of personal protective equipment (PPE) that is appropriate for the task and the type of zoonotic ATP as well as the implementation of cleaning and decontamination procedures for the equipment, PPE, and site. Additionally, if the CDC, CDPH or Local Health Officer recommends medical surveillance, the employer must implement the recommended procedures. To enable employees to properly conduct these operations, the subsection also requires the employer to train them to implement the proper work practices. The necessity for requiring an employer to implement these control methods is shown by the case of wildlife professionals infected with influenza A from handling wild fowl discussed previously and by exposures to hantavirus sustained by wildlife biologists.

Subsection (b)(3) would require the use of respiratory protection when there is an increased potential of exposure to infectious aerosols. Animals will typically release infectious materials in their respiration and excretion. Employees may be exposed to these materials either through direct contact with the animal or through infectious agents in wastes. When employees are collecting the infected or potentially infected animals or their carcasses, there is an increased likelihood for exposure to infectious aerosols. This potential exposure has been demonstrated by studies that show that avian influenza remains viable in bird feces up to several days depending on the environmental conditions.²² The necessity for this requirement is further shown by cases of wildlife researchers who have contracted hantavirus pulmonary syndrome from contact with the contaminated mouse droppings.²³ This subsection refers to Section 5144 regarding the use of respiratory protective equipment.

Subsection (c) Operations under USDA or CDFA infection control orders.

Proposed subsection (c) would require the employers identified in subsection (a)(2)(C) to adopt and implement written control procedures that protect employees from zoonotic ATP infection once an infection control notice, such as a movement restriction or quarantine, has been issued by the recognized agencies, such as the USDA or CDFA. These orders may be based on detection of infection at the premises, proximity to infected establishments or on contact with an identified infected establishment. This subsection is intended to protect employees during periods in which infection may not yet be apparent because of the incubation period in individual animals, or because the disease has not yet become widespread in the establishment. This subsection is necessary because persons exposed to infected animals are at risk of infection. In two recent studies of outbreaks of avian influenza in the Netherlands²⁴ and Canada,²⁵ farm employees exposed to poultry infected with avian influenza were found to be at increased risk of developing disease. Based on the increased risk of infection to employees, specific protective measures would be required by this subsection.

Subsection (c)(1) would require the employer to establish restricted areas and post signs at entrances to those areas identifying them as such. The establishment of restricted zones and access is intended to inform the employees at these facilities that the livestock in these areas may be infectious although they may not be

²² World Health Organization, "Review of latest available evidence on risks to human health through potential transmission of avian influenza (H5N1) through water and sewage" Water Sanitation and Health of the Human Environment, Geneva 2006, 3/24/06

²³ Gold, D. Memo to File. January 12, 2007

²⁴ A. Bosman, YM Mulder, JRI de Leeuw, A. Meijer, M Du Ry Van Beest Holle, RA Kamst, PG van der Velden, MAE Conyn-van Spaendonck, MPG Koopmans, MWMM Ruijten, "Executive Summary Avian Flu Epidemic 2003: Public Health Consequences", RIVM report 630940004/2004

²⁵ Tweed SA, Skowronski DM, David ST, Larder A, Petric M, Lees M, et al. Human illness from avian influenza H7N3, British Columbia. *Emerg Infect Dis* [serial on the Internet]. 2004 Dec]. Available from <http://www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm>

showing symptoms. The signs would be required to be in all languages necessary to ensure that they are understood by each employee. This is necessary to ensure that the entire workforce of the establishment is aware of the hazards and aware of the area in which the hazards are located. Advisory committee participants reported that there are many ethnicities and literacy levels among the employees comprising the workforce of these establishments who would require warning signs in their respective languages.²⁶

Subsection (c)(2) lists the exposure control elements that are to be used by the employees when entering and working in the restricted areas. Subsection (c)(2)(A) would require that the supervisor of the employees in the restricted area be knowledgeable about the employer's zoonotic disease control procedures. This is necessary to ensure that employees in the restricted area follow the disease control procedures and are provided with the resources necessary to do so. Subsection (c)(2)(B) would require that employers provide employees with protective clothing and ensure that the employees wear it while working in the restricted area. This subsection would further require that the employer provide for the disposal or laundering of this clothing in a manner that would not further expose employees to infectious materials. It requires that laundry be handled as contaminated laundry in accordance with Section 5193(d)(3)(J) which establishes bagging and handling requirements, labeling of laundry, and informing offsite laundry facilities of the infectious disease hazard. The use of personal protective equipment is referred to Sections 3380 through 3387 which establishes minimum requirements for this use. These provisions are necessary because employees working in areas housing animals or containing their wastes are likely to get this material on exposed portions of their bodies, which can be transferred to mucous membranes and become a source of infection. It is therefore necessary to protect exposed portions of the body from contact with contaminated materials. Material deposited on clothing may become aerosolized or re-aerosolized when the clothing is removed, and when it is handled. It is therefore necessary to adopt control measures for handling this clothing, and for informing offsite laundry facilities of the potential contamination.

Subsection (c)(2)(C) would require that the employer provide and require employees to use respiratory protection in enclosed areas in which aerosols from animals or animal wastes are present. This is necessary because the areas sheltering infected animals or containing their wastes are likely to be contaminated with infectious aerosols. To ensure the respirators are used properly, their use must be in accordance with Section 5144.

Subsection (c)(2)(D) would require that the employer provide the employee with sanitary facilities and drinking water and the means to access them. This subsection would also require that the employer provide change rooms and shower facilities complying with Sections 3360 through 3368, unless such facilities are not feasible. When such change rooms and shower facilities are not feasible, the employer must implement alternative means of sanitation and changing clothes. These provisions are necessary because many pathogens can be transmitted from a person's skin to the eyes, nose, mouth, or other mucous membranes and subsequently infect the person with the disease. Employees needing to use toilet or washing facilities, or to drink water, must be provided with a means to do so that protects them against infection. Also, employees leaving the work area must be able to wash off contaminated materials to avoid inhalation or mucous membrane contact with contaminated materials, and to prevent transport of contaminated materials off of the site.

²⁶ Minutes, Cal/OSHA Advisory Meeting, Aerosol Transmissible Diseases, May 19, 2006

Subsection (c)(2)(E) would require that the employer implement medical surveillance and provide recommended vaccinations or prophylaxis to exposed employees as recommended by the CDC, CDPH or the local health officer. Vaccines are recognized as one of the most effective measures to prevent, or mitigate the course of diseases. In the case of avian influenza, the seasonal flu vaccine has been recommended to prevent co-infection of an individual with the seasonal influenza and avian influenza viruses. This precautionary measure has been recently implemented by the British government for poultry workers in England.²⁷ During the 2003 avian influenza outbreak and eradication campaign in Canada, antiviral prophylaxis was found to be an effective measure in reducing disease.²⁸

Subsection (c)(2)(F) would require that the employer provide training to exposed employees that includes the nature of the hazards, the control measures that will be used, decontamination procedures, information about the recommended vaccinations and prophylaxis, and heat illness prevention. This training is necessary to ensure that employees recognize disease hazards, use the control measures, and obtain appropriate medical treatment if necessary. In order to ensure that the training is effectively conveyed to the employees, this subsection requires that training be appropriate in content and vocabulary to the educational level, literacy, and language of employees.

Subsection (c)(2)(G) would require that the employer establish procedures for recording the entry of persons into the restricted area in order to ensure that they are qualified to enter the area and would be under appropriate supervision. This record is also necessary for biosecurity purposes, to reduce the risk of transmission of disease between establishments or work areas. This record is also necessary to provide medical follow-up if it is indicated. Since these entry records record potential employee exposure to a biological hazard, this section restates the requirement that the records be maintained in accordance with Section 3204. This provision is necessary to insure that employers are aware of their responsibility under Section 3204.

Subsection (c)(3) would permit a decrease in protective measures if the agency which placed the quarantine order or movement restriction determines that the establishment is free from the pathogen. This is necessary in order to avoid imposing unnecessary requirements on establishments in which there is no increased risk of infection to employees, although movement restrictions may still exist in order to prevent the spread of disease to uninfected establishments.

Subsection (d) Work operations involving animals infected with zoonotic ATPs.

Subsection (d) is intended to establish the requirements for control methods that are to be used by employers whose operations involve handling or destroying animals infected, or suspected of being infected, with zoonotic ATPs or processing the facilities that quartered them. This subsection would require that the control methods be established in writing and implemented by the employer, thereby ensuring that effective measures are implemented to protect employees in these high-risk operations. Studies of exposure and

²⁷ Salisbury, David, (Director of Immunisation) United Kingdom Department of Health information leaflet, "Seasonal influenza vaccination programme for poultry workers," January 2007

²⁸ Tweed SA, Skowronski DM, David ST, Larder A, Petric M, Lees M, et al. Human illness from avian influenza H7N3, British Columbia. *Emerg Infect Dis* [serial on the Internet]. 2004 Dec]. Available from <http://www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm>

disease in recent avian influenza outbreaks in the Netherlands²⁹ and in Canada³⁰ found that workers in these operations are at increased risk of developing zoonotic disease.

Subsection (d)(1) would provide a list of the required elements of the employer's control plan. Subsection (d)(1)(A) would require that the employer develop a detailed work plan for the operations, that includes assessment of biological, chemical, physical, and safety hazards, and a description of the site's control measures. This subsection is intended to require employers to plan what work is to be done and how the hazards would be controlled, and to clearly set this forth in writing so that it can be communicated to all who enter the site. This is necessary to ensure that employees are adequately protected while performing these tasks and to ensure that workers who are not adequately trained and protected will not enter into high hazard areas. Subsection (d)(1)(B) would require that the employer develop and keep a list of all jobs, tasks or procedures in which employees have occupational exposure. This is needed to ensure that all exposed employees are provided with training, personal protective equipment and other control measures.

Subsection (d)(1)(C) would require that the control plan list the measures the employer will use to control employee exposure and protect employees from zoonotic diseases. This is necessary to inform persons entering the site of the control measures that would be used. Subsection (d)(1)(C)1 would require that the plan include the engineering and work practice controls and employee monitoring that are to be utilized in the operation. These controls are necessary in order to ensure that employees are protected from biological hazards, and from hazards that are introduced by the work operation, such as hazardous substances. Subsection (d)(1)(C)2 would require the employer to develop specific procedures for the handling of hazardous substances. Subsection (d)(1)(C)3 would require that the employer develop specific control measures for work operations involving the application of toxic or asphyxiant gases. This is necessary because eradication and mass decontamination operations may involve the application of carbon dioxide or other asphyxiants or toxics to large areas that were not designed to contain these hazards.

Subsection (d)(1)(C)4 would require that the plan address the respiratory protection that would be used during the work operation. Subsection (d)(1)(C)5 would require that the plan address the personal protective equipment and protective clothing that will be used in the operation. Subsection (d)(1)(C)6 would require that the plan address decontamination procedures that will be used in the operation. Subsection (d)(1)(C)7 would require that the plan address the method of disposal of animal waste and contaminated personal protective equipment. Subsection (d)(1)(C)8 would require that the plan address medical surveillance. Subsection (d)(1)(C)9 would require that the plan address the provision of training for employees in these work operations. Subsection (d)(1)(C)10 would require that the plan address the recordkeeping requirements of this section. These components ensure that the plan comprehensively addresses the hazards that may arise.

Subsection (d)(1)(D) would require that the plan include procedures to provide employees with ready and frequent access to drinking water and sanitary facilities. Since employees will need to wear protective

²⁹ A. Bosman, YM Mulder, JRI de Leeuw, A. Meijer, M Du Ry Van Beest Holle, RA Kamst, PG van der Velden, MAE Conyn-van Spaendonck, MPG Koopmans, MWMM Ruijten, "Executive Summary Avian Flu Epidemic 2003: Public Health Consequences", RIVM report 630940004/2004

³⁰ Tweed SA, Skowronski DM, David ST, Larder A, Petric M, Lees M, et al. Human illness from avian influenza H7N3, British Columbia. *Emerg Infect Dis* [serial on the Internet]. 2004 Dec]. Available from <http://www.cdc.gov/ncidod/EID/vol10no12/04-0961.htm>

clothing and respiratory protection while conducting these work operations, they may not be able to easily drink water while wearing the protective equipment, and will not be able to easily access drinking water or use sanitary facilities. Consequently, it is necessary that the employer develop procedures to provide employee access to drinking water and sanitation facilities, including appropriate decontamination methods.

Subsection (d)(1)(E) would require that the plan include procedures to protect employees from the risk of heat illness. Eradication and decontamination of infected facilities may occur during hot weather that will necessitate the use of procedures that protect employees from heat illness. Protective clothing may significantly increase the risk of heat illness during these operations, even in moderate temperatures. Consequently, it is necessary to require the employer to develop and implement procedures to protect employees from the risk of heat illness.

Subsection (d)(2) would establish that operations within the restricted area be supervised at all times by a person who knows the employer's control procedures and has the authority to enforce them. This is necessary to ensure that the activities are properly guided and the person directing the procedures has the authority to assure the employees conduct the operations in a manner that will minimize hazards. This subsection would also require the supervisor to record the entry and exit of persons into the restricted area. This is necessary for biosecurity purposes to reduce the risk of transmission of infection between establishments, in order to account for personnel, and in order to be able to provide medical follow-up to exposed persons.

Subsection (d)(3) would direct the employer to provide, and ensure that employees use, personal protective equipment and clothing in accordance with the requirements of Sections 3380 through 3387. The protective equipment and clothing would be required to protect the employees' skin and mucous membranes from contaminated fluids, aerosols and hazardous substances. These requirements are necessary to ensure that the employees are protected against infection and chemical hazards. This subsection would further require that the equipment and clothing be reasonably comfortable and not be unnecessarily restrictive to the movements required to perform the tasks. This requirement is necessary to minimize safety hazards and to encourage employees to use the equipment. This subsection would further require that personal protective equipment and clothing be capable of decontamination or disposal. This is necessary to prevent the transport of infectious materials or hazardous substances outside of the restricted area.

Subsection (d)(4) would require the employer to provide and ensure that the employees use appropriate respiratory protection for operations in the restricted area in accordance with Section 5144. Respirators generally are required to protect employees against the aerosols present or generated in these operations. However, if the employer were to demonstrate that engineering and work practice controls have eliminated the risk to employees, the employer would not be required to provide respiratory protection. This subsection would further require that the employer base respirator selection on the infectious disease hazard and on any hazardous substances that are present in the work environment that would require respiratory protection. The respirators must be used until work areas have been decontaminated. For work in enclosed areas elastomeric facepiece respirators or powered air purifying respirators (PAPR) with appropriate cartridges would be the minimum required unless the employer could demonstrate that this level of protection would not be necessary to protect employees. This requirement is necessary because the work environment is expected to expose employees to infectious aerosols, high moisture, and/or hazardous vapors or gases. This subsection would also require the employer to provide and ensure that employees use appropriate eye protection, unless sufficient eye protection is provided by the respirator. This is necessary to protect

employees against acquiring infection due to eye contact with infectious aerosols, as well to provide employees with protection against eye contact with hazardous substances.

Subsection (d)(5) would require employers to utilize procedures to ensure that employees are not exposed to acutely hazardous environments due to the application of toxic or asphyxiant gases. These procedures are necessary because animal eradication operations may involve the application of these gases to large areas, such as barns or portions of barns. Atmospheres may contain 50 percent carbon dioxide or more,³¹ which would produce immediate death if an employee entered without their own air supply.³² Gases may also be applied to these areas to combat microbial growth or to aid in decontamination.

Subsection (d)(5)(A) would require that the employer assure that there are no persons remaining in occupiable areas prior to the application of toxic or asphyxiant gases. These procedures include all of the following: a physical or visual search of the area, an alarm, and an accounting for all persons known to be in the restricted area. Subsection (d)(5)(B) would require that warning signs be posted prior to the application of gases. The signs would be required to be visible from a distance of 12 feet, to contain the statement "Danger – Do Not Enter;" to include the poison symbol required by the department of transportation, which is included as appendix A; and to state the name of the agent being applied. This subsection would further require that the signs be in all languages necessary to be understood by employees. This subsection would also require the employer to prohibit employees from entering the posted area, unless the area is entered under procedures for atmospheres which are immediately dangerous to life or health (IDLH).

Subsection (d)(5)(C) would require that the area be effectively ventilated prior to the re-entry of employees. It would specify that the ventilation be accomplished in a manner that does not endanger employees working in other areas of the site. This would require that the employer consider the conditions downstream or adjacent to the ventilation to ensure that hazardous atmospheres are not created at other areas of the site.

Subsection (d)(5)(D) would require that prior to removal of signs, that the employer test the atmosphere in the posted area and determine that it is not oxygen deficient and that it does not contain an atmosphere that is IDLH or exceeds the ceiling or short-term exposure limits. This subsection would require that the testing represent all potential exposures in the area, in order to ensure that there are no areas where gases have pocketed or pooled. It is anticipated that this testing would be conducted by remote monitors placed prior to the application of the gas, or by employees who enter under IDLH procedures. This subsection would further require that the results of the testing be recorded, and that the record be posted at the entrance to the area for the duration of the work. After that time, the record would be required to be retained in accordance with subsection (e).

Subsection (d)(5)(E) would require continuous monitoring for employees working in areas adjacent to the area of application where a hazardous atmosphere may exist. This is necessary because the application of high concentrations of carbon dioxide or other gases to buildings which have not been designed to contain the gases may result in unforeseen leakage and the creation of hazardous atmospheres. This subsection would further require that employees be directed to immediately exit the area if an oxygen deficient or toxic atmosphere is detected. In this case, a toxic atmosphere is any atmosphere in which the concentration exceeds permissible exposure limits in Section 5155, regardless of the duration of exposure. The employer would be further required to post this area and to prohibit entry except under IDLH procedures until the

³¹ 2000 Report of the AVMA Panel on Euthenasia. Journal of the American Veterinary Medical Association, 218:5. March 1, 2001

³² National Institute for Occupational Safety and Health. Documentation of IDLH. Carbon Dioxide

employer has verified that the area is safe in accordance with subsection (d)(5)(D). This is necessary because detection of contaminants at these levels indicate that the asphyxiant or toxic gas has not been adequately contained, and the area is not safe to occupy.

Subsection (d)(5)(F) would require that when employees enter confined spaces, the entrance be in accordance with Section 5157, which requires a confined space program. This is necessary to protect employees from the additional hazards found in confined spaces and to ensure consistency with existing Title 8 requirements.

Subsection (d)(5)(G) requires that fumigation operations comply with Sections 5221 through 5223. This is necessary to ensure consistency with the existing Title 8 requirements and to clarify that this subsection does not supersede those requirements.

Subsection (d)(6) would require that employers implement procedures for treatment and disposal of animal waste and contaminated personal protective equipment that will minimize employee exposures to zoonotic disease hazards and that will be in accordance with California and U.S. Environmental Protection Agency standards. Animal wastes can harbor many pathogens, and proper disposal is necessary to prevent disease. Cal/EPA has adopted standards regarding the proper treatment and disposal of these materials. These requirements are necessary to protect employees from exposure to these pathogens, and to harmonize this standard with environmental standards.

Subsection (d)(7) would require employers to ensure that employees have the appropriate means to properly decontaminate themselves and their clothing, PPE, and equipment when leaving the restricted area, or that contaminated clothing and equipment are appropriately disposed of. It also would require that employees be provided with change rooms and shower facilities in accordance with Sections 3360 through 3368, unless such facilities are not feasible, in which case the employer would be required to provide alternate means for decontamination and changing clothes. These requirements are necessary to avoid transporting infectious material outside of the restricted area and to minimize exposure to employees.

Subsection (d)(8) would establish medical surveillance requirements for these operations. This subsection is intended to ensure that the employer provides a medical surveillance program to all employees who enter into the restricted area. The employer would be required to consult a physician or other licensed health care professional (PLHCP) knowledgeable about zoonotic disease hazards in developing the program. This is necessary to ensure that employees are provided with medically recommended vaccinations and prophylaxis and with prompt and appropriate medical treatment. Medical surveillance is also a means for assessing the effectiveness of the work practices and PPE. This subsection would require that the medical surveillance program maintain the employee's rights to medical confidentiality in accordance with Section 3204. This is necessary to ensure that this provision is consistent with other applicable sections of Title 8, federal standards, and other provisions of the law. This subsection would further require that the employer provide, all vaccinations, prophylaxis, and medical surveillance recommended by the PLHCP, CDC, CDPH or the local health officer. This is necessary to reduce the risk of infection and to mitigate the disease course if employees become infected. This subsection further enumerates the minimum requirements for medical surveillance, and thereby ensures effective surveillance.

Subsection (d)(8)(A) would require that employees be provided with an initial medical evaluation prior to their first entry into a restricted area. This evaluation would include a respirator medical evaluation in

accordance with Section 5144(e). This is necessary to establish a baseline evaluation for the employee, provide any recommended immunizations and prophylaxis, and ensure the employee is physiologically able to use the respirator selected for the work operation.

Subsection (d)(8)(B) would require ongoing surveillance for signs and symptoms of zoonotic diseases as recommended by the PLHCP. This subsection would also require immediate referral to a PLHCP of employees who exhibit those signs and symptoms or request a referral. This is necessary because the transmission of zoonotic diseases cannot be monitored by air or surface testing. Employees exhibiting signs or symptoms of zoonotic disease, and employees requesting referral must be referred immediately to the PLHCP in order to ensure prompt and appropriate evaluation and treatment.

Subsection (d)(8)(C) would require surveillance for signs and symptoms of over-exposure to hazardous substances that are present in the work operation. This subsection would further require referral of such an employee to a PLHCP. This is necessary to ensure that overexposures to hazardous substances are detected promptly and are referred for appropriate medical attention. This subsection would also require the employer to investigate the source of a potential overexposure and to take corrective action, if necessary. This is necessary because these operations involve unusual and often uncharacterized exposures to hazardous substances such as asphyxiant and toxic gases.

Subsection (d)(8)(D) would require the medical surveillance program to include the provision of vaccinations or prophylaxis as recommended by CDC, CDPH, the local health officer or the PLHCP. This is necessary to reduce the risk of infection and disease.

Subsection (d)(8)(E) would require the medical surveillance program to include follow-up medical evaluations as recommended by CDC, CDPH, the local health officer, or the PLHCP. This is necessary to ensure that employees are provided with appropriate medical follow-up as recommended to enable early detection and treatment of disease in order to mitigate the disease course.

Subsection (d)(8)(F) would restrict the information that is provided to the employer by the PLHCP. This is intended to ensure that only information necessary to control work operations is transmitted to the employer, that the employee's medical confidentiality is safeguarded, and ensure that fear of disclosure does not discourage employees from participating in the medical surveillance program. Subsection (d)(8)(F)1 would require that for respirator medical evaluations, information provided to the employer be limited to the information required in Section 5144(e)(6)(A) regarding the employee's ability to use a respirator. This provision is necessary to ensure consistency with existing Section 5144, and the equivalent federal standard. Subsection (d)(8)(F)2 would require that when vaccination or prophylaxis has been recommended, the PLHCP would only inform the employer as to whether the employee was vaccinated and/or provided with prophylaxis and whether the employee is authorized to enter the restricted area. This is necessary to permit a qualified medical professional to determine whether an employee's risk is sufficiently controlled to allow the employee to work in the restricted area.

Subsection (d)(8)(F)3 would require that for referrals and follow-up medical evaluations, the PLHCP only inform the employer that the employee has received the evaluation, whether additional evaluation is required, and whether the employee is authorized to work in the restricted area. This is necessary to ensure that the personal medical information of the employee is protected while conveying to the employer the information necessary to conduct work operations.

Subsection (d)(9) would establish requirements for training to be provided to employees in these work operations. This subsection is intended to ensure that employees receive training upon initial assignment and when site conditions are substantially changed. This is necessary because the operations regulated by this subsection involve a variety of hazards that may change throughout the different phases of the operations. Employee training is particularly necessary to control those hazards because of the unusual and changing conditions in the work environment. This subsection would further require that training be appropriate in content and vocabulary to the educational level, literacy, and language of employees, so as to ensure that the training is effective for each employee. This subsection would require the training to include the processes and procedures employees will use in restricted areas or when dealing with infected animals or their waste; the employer's safety program, including engineering and administrative controls; any exposure monitoring that is or will be conducted; the results of that monitoring; the use of personal and respiratory protection equipment, cleaning and decontamination procedures; medical surveillance; and the meaning of signs that are used on site. It would also require hazard communications training for hazardous substances in the work area in accordance with Section 5194. This is necessary to ensure consistency with existing Title 8 sections and the equivalent federal standards.

Subsection (e) would establish requirements for recordkeeping for work operations covered by this section. This subsection is intended to instruct employers to establish and maintain records of implementation of the employer's zoonotic disease control procedures and to ensure that these procedures are in accordance with the existing and applicable sections of the General Industry Safety Orders.

Subsection (e)(1) would require that records of implementation of hazard identification, evaluation, and control and of employee training be in accordance with Section 3203. This is necessary to verify that identified hazards are appropriately evaluated and controlled and that employees are trained and to enable the Division to effectively enforce this section.

Subsection (e)(2) would require that employee exposure records be maintained in accordance with Section 3204. Among those records are the employer's zoonotic disease control procedures for operations covered by subsections (b), (c) and (d); records of entry into restricted areas; records of atmospheric testing; and records of exposures to hazardous substances. This is necessary to ensure that the records of exposure will be available to employees, their representatives, and public health and occupational health and safety agencies. This requirement is also necessary to ensure consistency with existing sections of Title 8 and the equivalent federal standard.

Subsection (e)(3) would require that the records pertaining to medical surveillance which would include personal medical information be maintained in a confidential manner and be maintained and made available in accordance with Section 3204. This is necessary to be consistent with existing sections in Title 8, and the equivalent federal standards. These records are also necessary for the Division to be able to effectively enforce this section.

Subsection (e)(4) would require the records pertaining to the respiratory protection program to be established and maintained in accordance with Section 5144. This is necessary to be consistent with existing sections in Title 8, and the equivalent federal standards. These records are also necessary for the Division to be able to effectively enforce this section.

Subsection (e)(5) would establish requirements regarding the availability of records. These requirements are necessary to ensure that employers are aware of their responsibilities in this regard. This subsection is also necessary for the Division to be able to effectively enforce this section.

Subsection (e)(5)(A) would require that all employee medical records required by this section be made available to the employee, anyone having the employee's written consent, the Chief of the Division, NIOSH, and the local health officer for examination and/or copying. This is necessary to be consistent with existing sections of Title 8 and equivalent federal standards, and to ensure ready access by the local public health authority responsible for the community in which the operation occurs and to ensure that exposed employees are provided with appropriate medical follow-up. Subsection (e)(5)(B) would require that all other records required by this section be made available to employees, their representatives, the Chief and to NIOSH. This is necessary so that employees and their representatives can ensure that appropriate precautions are taken, so that the Division may enforce the provisions of this section, and so that NIOSH may have this information for research.

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These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC
IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

State agencies whose employees are exposed to zoonotic disease hazards are required by current standards to develop procedures as part of the Injury and Illness Prevention Program (IIPP) and Sections 3360 through 3368 and 3380 through 3387. In addition to the requirements of Title 8, operations in agencies within the scope of this section must meet infection control or biosecurity guidelines applicable to their operations. Therefore, this standard is anticipated to provide no additional requirements or associated costs during normal operations. Field biologists and other employees at the CDFG and CDPH who are involved in disease surveillance would be affected by an alert involving wildlife potentially infected with a zoonotic aerosol transmissible pathogen. The provisions of subsection (b) would apply to those employers. These agencies have already adopted programs to protect employees who perform these functions, including avian influenza response plans. Other state agencies in which employees may have incidental contact with affected animal species, may elect to prevent occupational exposure through their IIPP, by instructing employees not to handle the effected dead animals or enter areas where these animals may be located. Employers who will deal with potentially infectious wildlife will be required by subsection (b) to adopt control procedures. These procedures are already be required by Section 3203, as illustrated by citations issued by the Division for such exposures.³³ Therefore, this section is not expected to impose additional costs.

State agencies, whose employees visit establishments which have been identified by the CDFA or the USDA as being at increased risk of infection with zoonotic aerosol transmissible pathogens would be required to implement additional control measures under subsection (c). Some of these agencies include the CDFA, the University of California and Avenal State Prison, which has a poultry operation. At the time of such an alert, these agencies would be required to implement additional biosecurity and control measures in accordance with the recommendations of the USDA Animal and Plant Health Inspection Service (APHIS) protocols.³⁴ The CDFA implemented programs for control of exposures to END and bovine TB and has developed programs to control exposure to highly pathogenic avian influenza. The Division believes that

³³ Gold, D. Memo to File. January 12, 2007

³⁴ Animal and Plant Health Inspection Service. Summary of the National Highly Pathogenic Avian Influenza National Response Plan. United States Department of Agriculture. April 2006

these increased biosecurity protocols and associated zoonotic disease control procedures are required under existing Section 3203 as hazard control procedures, and therefore their requirement in this subsection does not impose additional costs. The University of California at Davis has developed recommendations for biosecurity and employee safety during such an alert period,³⁵ including the implementation of filtering facepiece respirators and other protective equipment. The Division further believes that existing Section 5144 would require the use of respiratory protection where there is an aerosol infectious disease hazard, and therefore respirator use does not impose new costs. The Division further believes that sanitation facilities for employees, including shower and change rooms and use of personal protective equipment would also be required to comply with existing standards, and therefore these requirements do not impose new costs. This proposal does not require CDFA or CDPH to develop alerts. It recognizes the existing jurisdiction of those agencies to deal with animal disease threats and provides a mechanism to implement concurrent health and safety protections.

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

It is likely that operations addressed in subsection (d) would be considered hazardous waste operations or emergency response operations, which would be regulated under Section 5192, which includes all of the elements in this subsection. This subsection is more specific to the hazard and adopts some pre-existing hazard assessment which was developed with the assistance of an advisory committee, and with the participation of various agencies and private entities. To the extent that this subsection makes the requirements of Section 5192 more specific to the anticipated level of hazard, it will reduce costs from those imposed under Section 5192. For example, Section 5192 requires air supplied respirators and level B clothing for an uncharacterized hazardous waste site and the use of self-contained breathing apparatus (SCBA). The costs of implementation of these provisions is far greater than the costs imposed by the protective requirements included in this subsection, which are elastomeric facepiece respirators or powered air purifying respirators. For example, an SCBA costs approximately \$2000 to \$3500 as compared with a PAPR, which costs approximately \$700 to \$900, or a full facepiece respirator, which costs about \$10-\$250, or a half-face air purifying respirator, which costs \$50 or less.³⁶ Where Section 5192 would not apply, then these control measures would be required under Section 5144, Section 3395, Section 3203, and Sections 3360 through 3368 and 3380 through 3387. It is likely that these disease control and clean-up operations involving agriculture or wildlife will be conducted under the supervision of USDA, CDFA or another government agency, which will be developing both the detailed work plan and other site safety measures that will be required as a cost of the contract. In addition, the USDA is expected to pay for some or all of the costs of operations that are carried out under its authority and mandate to control animal diseases. Finally, funding has been provided to state agencies for avian/pandemic flu preparedness which includes the development of procedures such as those required under this section, and the purchase of equipment.

³⁵ Cardona C, Halverson, Hudson W. Poultry Industry Alert Levels. University of California at Davis. July 5, 2006

³⁶ Lab Safety Supply, assorted items

Therefore, the Division believes that this subsection will not impose significant increased costs beyond those already projected to be incurred by employers who perform these operations.

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

Impact on Housing Costs

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

Impact on Businesses

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

Cost Impact on Private Persons or Businesses

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

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

Private employers who are affected by an alert involving wildlife potentially infected with a zoonotic aerosol transmissible pathogen include veterinarians, private parks and zoos, and animal shelters that accept wildlife. The provisions of subsection (b) would apply to those employers, who may elect to prevent occupational exposure through their IIPP, by instructing employees not to handle the effected dead animals or enter areas where these animals may be located. Employers who elect to deal with potentially infectious wildlife will be required by subsection (b) to adopt additional control procedures. These procedures would already be required by Section 3203, as illustrated by citations issued by the Division for such exposures. Therefore, this subsection is not expected to impose additional costs.

Subsection (c) would require agricultural establishments identified by the CDFA or USDA as being at increased risk of infection with zoonotic aerosol transmissible pathogens to implement additional control measures. As part of the CDFA or USDA order, affected establishments would be required to implement additional biosecurity measures, including restriction of persons and equipment entering the facility, posting

of biosecure areas, increased use of such protective equipment as boot covers, and increased clothes changing and sanitation requirements. The Division believes that these increased biosecurity protocols and associated zoonotic disease control procedures would also be required under existing Section 3203, and therefore the requirements included in this subsection do not impose additional costs. The University of California at Davis has developed recommendations for biosecurity and employee safety during such an alert period,³⁷ including the use of filtering facepiece respirators and other protective equipment. The Division believes that existing Section 5144 would require the use of respiratory protection where there is an aerosol infectious disease hazard, and therefore respirator use does not impose new costs. The Division further believes that sanitation facilities for employees, including shower and change rooms, and use of personal protective equipment, would be required to comply with existing standards, and therefore these requirements do not impose new costs. Therefore, this subsection clarifies how existing requirements would apply, and does not impose substantial additional costs.

Private employers who conduct operations involving the handling, culling, killing, disposal etc., of infected animals, or the cleaning of areas harboring those animals, would be regulated under subsection (d). This subsection includes additional written procedures including a detailed work plan, establishment of restricted areas and decontamination procedures, access to drinking water and sanitation facilities, and provisions to reduce the risk of heat illness. This subsection requires respiratory protection in enclosed areas and specifies the minimum level of protection required. It also requires medical surveillance and training. It is likely that the operations addressed in subsection (d) would be considered to be hazardous waste operations or emergency response operations, which would be regulated under Section 5192, which includes all of the elements in this subsection. This subsection is more specific to the hazard and adopts some pre-existing hazard assessment developed with the assistance of an advisory committee, and with the participation of various agencies and private entities. To the extent that this subsection makes the requirements of Section 5192 more specific to the anticipated level of hazard, it will reduce costs from those imposed under Section 5192 for work sites that have not been assessed. For example, Section 5192 requires air supplied respirators and level B clothing for an uncharacterized hazardous waste site and the use of self-contained breathing apparatus for emergency response. The costs of implementation of these provisions is far greater than the costs imposed by the protective requirement included in this subsection, which are elastomeric facepiece respirators or powered air purifying respirators. For example, an SCBA costs approximately \$2000 to \$3500 as compared to a PAPR, which costs approximately \$700 to \$900 or a full facepiece respirator, which costs about \$150-\$250, or a half-face air purifying respirator, which costs \$50 or less.³⁸ Where Section 5192 would not apply, then these control measures would be required under Section 5144, Section 3395, Section 3203, and Sections 3360 through 3368 and 3380 through 3387. It is likely that these disease control and clean-up operations involving agriculture or wildlife will be conducted under the supervision of the USDA, CDFA or other government agency, which will be developing both the detailed work plan and other site safety measures that will be required as a cost of the contract. Therefore the Division believes that this section will not impose significant increased costs beyond those already projected to be incurred by employers who perform these operations.

Subsection (e) enumerates recordkeeping requirements for this section. It incorporates existing requirements under Sections 3203, 3204, 5144 and 5194. It would require employers with operations under subsections (c) and (d) to establish records of persons entering the restricted area, and to make those records available to the local health officer upon request. To the extent that this is a new requirement it is not expected to impose

³⁷ Cardona C, Halverson, Hudson W. Poultry Industry Alert Levels. University of California at Davis. July 5, 2006

³⁸ Lab Safety Supply, assorted items

significant costs. The Division estimates that the cost of maintaining a log of persons entering the restricted area (which may already be required by other agencies) as less than one half hour per work shift for which the requirement is in effect.

Costs or Savings in Federal Funding to the State

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

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

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

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

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

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

DETERMINATION OF MANDATE

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

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

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

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

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

EFFECT ON SMALL BUSINESSES

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

ASSESSMENT

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

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.