

## **OCCUPATIONAL HAZARDS OF EMITTED POLLUTANTS FROM POULTRY PRODUCTION FACILITIES.**

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### **SUMMARY**

Modern methods of livestock housing require that the stockman works for a large proportion of the day in an atmosphere containing comparatively high levels of dust, gases and odour that increased the prevalence of respiratory problems in those work in poultry houses. Poultry farm workers may contract from the fowl in their care, infectious diseases that are common to fowl and man where poultry farms usually contains significant levels of agricultural dust, toxic gases, some chemicals used for disinfection, etc., may cause harm to workers' health. Acute and chronic respiratory irritation and disease may be conducted from exposure to agricultural dusts. Agricultural dusts are primarily organic (feathers, dander, microorganisms etc.), while inorganic dusts, like crystalline silica, are also found in confinement house dusts. Acute and chronic dermal, ocular and respiratory diseases from exposure to several toxic and asphyxiating gases common especially in confinement systems including ammonia (NH<sub>3</sub>), released during microbial degradation of manure; carbon dioxide (CO<sub>2</sub>) from animal respiration, manure fermentation, and gas flame heaters; other gases include CO, H<sub>2</sub>S, CH<sub>4</sub>, SO<sub>2</sub>, and NO<sub>x</sub> (manure decomposition and fuel combustion). Long-term exposure of workers to organic dusts and animal confinement gases lead to respiratory diseases and syndromes, including hypersensitivity pneumonia, organic dust toxic syndrome, chronic bronchitis, mucous membrane inflammation syndrome, and asthma-like syndrome, result from ongoing acute and chronic exposures. Respiratory function of poultry growers may be impaired above concentration of 12 ppm of ammonia and exposure to disinfectants, detergents, formaldehyde, ammonia solutions, sodium carbonate and sodium hypochlorite. Formaldehyde, a suspect carcinogen, is often used as a disinfectant in hatcheries and brooder houses. The physically difficult and handling heavy loads, uncomfortable postures and movements may cause traumas (including falls), back, arms and hands pains. Occupation concerned with the breeding, raising, gathering, and caring of domestic fowl and collecting their products,

performs any combinations of the following duties concerned with raising poultry for eggs and meat. Removes chicks from shipping cartons and places them in brooder houses. Cleans and disinfects poultry houses, cages, and nests. Spreads bedding materials, cleans droppings from floor, vaccinates via drinking water, injection, or dusting of air, odours ,wastes, pathogens, dust, and animal pests are the most important factors of pollution resulting from industrial animal production. Emissions from animal production systems originate from manure storage facilities, animal housing, and land application of manure. The impact of odor on the public can be evaluated by the frequency, intensity, duration, and offensiveness of the odors .The relationship between odor concentration and odor intensity is important to establishing the effect of the odor on the public and in determining effective abatement strategies.

**Keywords:**

Health risk, Particulate matter, Gases, Emission, Control.