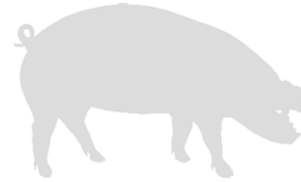


# Checklist of potential occupational health & safety impacts

## When adopting new swine production technology

Different types of technology might introduce different types of risk. The questions on this checklist can help identify hazards that might be related to introducing new technology in your workplace.



### Chemical hazards

- Yes    No   **Manure Gas (H<sub>2</sub>S, Ammonia, Methane)**  
*Will the new technology change the way that manure is stored, pumped, or removed? Will it change the access that workers have to areas where pumping or removal is happening?*
  
- Yes    No   **Dust**  
*Will the new technology introduce new sources of dust, or will it change the way dust circulates or settles in the facility? Will there be new requirements for removing or disturbing dust?*
  
- Yes    No   **Chemicals and WHMIS**  
*Will the new technology introduce chemicals for cleaning, lubrication, or as substrates for a new process? What hazards are listed on the relevant material safety data sheets (MSDS)?*
  
- Yes    No   **Medication**  
*Will the new technology introduce new animal medications, vaccines, or nutritional supplements? Could workers come into contact with these through ingestion, inhalation, skin contact, or injection?*

### Biological hazards

- Yes    No   **Swine-borne pathogens**  
*Will the new technology change the way workers are exposed to pig body fluids? Could workers come into contact with these through ingestion, inhalation, skin contact, or injection?*
  
- Yes    No   **Endotoxin and respiratory allergens**  
*Will the new technology change the types of biological material that workers are exposed to, such as feed, animal bedding, or other plant or insect material?*
  
- Yes    No   **Fungus, yeast and mold al and bacterial infections**  
*Will the new technology change the environment towards conditions that are favourable for fungus growth, such as water sources, damp conditions, warm environment and unprotected building materials or other food sources?*
  
- Yes    No   **Bacterial infections**  
*Will the new technology increase the likelihood of workers breaking the skin and becoming more vulnerable to infection?*

### Physical hazards

- Yes    No   **Electrical**  
*Will the new technology use electricity, or require installation of new electrical panels and conduits? Will there be an opportunity for locking out machinery for maintenance?*
  
- Yes    No   **Noise**  
*Will the new technology introduce any noise sources to the workplace, or reduce barriers and enclosures of existing noise sources?*

Yes     No    **Vibration**  
*Will the new technology require workers to sit or stand on vibrating machinery, like vehicles or forklifts? Will the technology require the use of vibrating handtools, like pneumatic torque wrenches or drills?*

Yes     No    **Fire**  
*Will the new technology introduce a source of heat, fuel, or oxygen that could impact fire risk? Will the new technology change the emergency exits or the fire evacuation plan of the facility?*

Yes     No    **Radiation and lasers**  
*Will the new technology introduce ionizing or not ionizing radiation, including electromagnetic, ultra violet, or lasers?*

### **Ergonomics**

Yes     No    **Manual handling**  
*Will the new technology require workers to lift, push, or pull heavy or awkward loads? How often will the handling be required, and what equipment will be available to help?*

Yes     No    **Repetition**  
*Will the new technology require workers to perform the same task over and over, with few rest breaks or variation in their work? How frequently will this work be required? What levels of precision are required for this work?*

Yes     No    **Static positions**  
*Will the new technology require workers to sit or stand for long periods, or to maintain awkward postures like bending over or reaching the hands above shoulder level?*

Yes     No    **Restrictions on movement**  
*Will the new technology prevent workers from being able to move freely, either from containment by physical space constraints or a production requirement to stay in the same spot/position?*

Yes     No    **Visual demands**  
*Will the new technology require workers to see and interpret visual data, such as instructions, a data display, or to confirm an area is free of obstacles and other workers? Will the new technology introduce any barriers to vision, such as reducing lighting, introducing dust or mist, or increasing distance to a display?*

#### **Temperature stress**

*Will the technology introduce a heat source that could increase the temperature in the barn during the hot season? Will the new technology require workers to go outside in cold weather, or require the doors and windows to be open during the cold season? Will fans or HVAC be available to regulate temperature changes?*

#### **Shift work**

*Will the new technology change the work schedule, or alter the duration or work shifts?*

#### **Computer workstations**

*Will the new technology require new workers to spend time at a computer workstation, or increase time for existing office workers?*

### **Safety hazards**

- Yes    No   **Confined space**  
*Will the new technology require workers to enter confined spaces with limited access and not intended for continuous human occupancy?*
- Yes    No   **Working at height**  
*Will the new technology require workers to access the roof, catwalks, ceiling panels, augers, conveyors or grain bins?*
- Yes    No   **Slips and trips**  
*Will the new technology introduce new floor surfaces or change the floor surfaces to potentially reduce friction? Will it introduce new obstacles or tripping hazards in the forms of hoses or control boxes?*
- Yes    No   **Working alone**  
*Will the new technology require workers to work alone or in isolation, out of sight or beyond easy calling distance from other workers for extended periods?*
- Yes    No   **Machinery**  
*Will the new technology introduce new machinery that potentially presents a risk of entanglement, entrapment, shearing, or burning?*
- Yes    No   **Motor Vehicle Collisions**  
*Will the new technology require new workers to operate motor vehicles or ride-on machinery? Will it change the route, vehicle, or other requirements of existing motor vehicle operators?*

### **Psychosocial hazards**

- Yes    No   **Time pressure**  
*Will the new technology change the speed or rate of works, or alter the nature of deadlines and work loads?*
- Yes    No   **Work demands (quantity, quality)**  
*Will the new technology change the demands for work quality or quantity?*
- Yes    No   **Control latitude**  
*Will the new technology reduce or change the ability of workers to organize their own work? Will successful use of the technology depend on factors outside the workers' control? (e.g. weather, market prices)*

### **Additional Notes**