DOHS Fact Sheet and Check List - Waste Anesthetic Gas (WAG)

What good work practices should I implement to further reduce the potential for WAG exposure?

Post this Fact Sheet & Checklist in the work area. Perform the following checks each time anesthetic gas is administered:

- Ensure personnel have received the appropriate documented training on how to use the equipment.
- Review and understand the manufacturer’s instructions for operating the equipment.
- Ensure induction chamber lids are closed and locked when anesthetic gas is being delivered.
- Inspect lid gaskets to ensure they have a tight seal to the induction chamber. Replace defective gaskets.
- Ensure all connections are properly secure.
- Inspect tubing, valves and fittings for leaks. Seal all leaks.
- Use the flushing/purge system (if applicable) to flush for 5-10 seconds, or the time period noted by the manufacturer.
- Use a certified local exhaust ventilation system (chemical fume hood, downdraft table/sink, etc.) as the preferred means to remove WAG. Note that a biosafety cabinet that is NOT ducted to the exhaust system will only recirculate WAG and will not effectively remove it from the room.
- Maintain downdraft tables free of obstructions.
- Avoid excessive flow rates STAT.
- Ensure the ports are sealed/plugged if animals are not in place (when using manifold or multi-port systems, including some imaging units).
- Use a certified local exhaust ventilation system (chemical fume hood, downdraft table/sink, etc.) when filling the vaporizer.
- Keep laboratory doors closed all times when anesthetic gas is in use.
- Ensure preventative maintenance has been performed on the system annually, or more frequently if recommended by the manufacturer.
- Create a nose cone for small animals (if applicable) comprised of a sheath and gasket to minimize WAG from escaping around an animal’s face (see photo).

Small charcoal canisters:

- Adhere to the weighing and change-out schedules, as recommended by the manufacturer for the commonly used small charcoal canisters (e.g. F/AIR canisters).
- Weigh the canisters before every use.
- Avoid the use of any other large charcoal based scavenging systems.

For questions and/or concerns regarding this reference document please contact the Technical Assistance Branch, Division of Occupational Health and Safety at 301-496-2960 or consult with your Institute’s assigned Safety Specialist who can be found at https://ors.od.nih.gov/sr/dohs/safety/laboratory/Pages/safety_health_specialists.aspx

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