Are there any DOHS programs in relation to WAG?

The DOHS has established a written WAG Surveillance Program, which primarily entails performing surveys and leak tests to quantify exposure levels and provide recommendations to reduce exposure. A survey or leak test may include: monitoring employees for exposure, performing a leak test of the anesthetic breathing circuit, and providing recommendations to further reduce any potential exposure.

A copy of the current WAG Surveillance Program is posted on the DOHS website: https://www.ors.od.nih.gov/sr/dohs/safety/laboratory/Pages/gas_surveillance.aspx#Waste

Does DOHS perform a survey or leak test at all locations?

DOHS recognizes that it may be infeasible (e.g. unscheduled procedures, infrequent use) to perform a survey or leak test at every location throughout NIH that utilizes anesthetic gas for a procedure. WAG Surveillance Program efforts are focused where there is a greater risk for potential exposure to WAG (active surgical suites, high duration of procedures, etc.).

A survey or leak test may be requested by contacting DOHS at (301) 496-3457.
Consider posting this Fact Sheet & Checklist in the work area, and 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. A biosafety cabinet that is NOT ducted to the exhaust system is not sufficient. WAG will simply recirculate in the room.
- Maintain downdraft tables free of obstructions.
- Avoid excessive flow rates.
- 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 when anesthetic gas is in use.
- Ensure preventative maintenance has been performed on the system annually, or more frequent 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, as per guidance from the NIH “Ductless Fume Hood Review” document.