

**Miller, Diane M.**

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**From:** Carol Petersen [cpeters@aorn.org]  
**Sent:** Wednesday, April 19, 2006 1:24 AM  
**To:** NIOSH Docket Office  
**Cc:** Lbutler4@clarian.org; ljb038@aol.com; Carol Petersen  
**Subject:** docket number NIOSH-064  
**Attachments:** Federal Register comment41806doc.doc

Attached are comments regarding the waste halogenated anesthetic agents; isoflurane, desflurane and sevoflurane from the AORN Workplace Safety Committee.

**Carol Petersen RN BSN MAOM CNOR**

Perioperative Nursing Specialist

Center for Nursing Practice

303.755.6304 ext 392

303.338.5165 fax

800.755.2676 ext 392

2170 S Parker Rd.

Denver, CO 80231

[cpeters@aorn.org](mailto:cpeters@aorn.org)

[www.aorn.org](http://www.aorn.org)



April 18, 2006

To Whom It May Concern:

AORN, the Association of periOperative Registered Nurses is submitting comments regarding waste halogenated anesthetic agents; isoflurane, desflurane and sevoflurane docket number NIOSH-064. AORN is a professional organization of registered nurses focused on the care of patients undergoing surgical or other invasive procedures. AORN is committed to the creation and maintenance of a safe work environment to protect all health care providers in order to provide safe patient care. Perioperative nurses along with other team members routinely face occupational hazards that pose a risk of personal injury that include exposure to chemicals such as anesthesia waste gases.

Isoflurane, desflurane and sevoflurane are commonly used inhalation agents for general anesthesia in inpatient and hospital based and freestanding ambulatory surgical units. While all anesthetic agents should be administered by an approved anesthetic gas machine, maintained in good working condition, in conjunction with a scavenging system in a well-ventilated room, leaks can and do occur. The most common leak sites include hose connections, disposable breathing circuits, ventilators, and vaporizers. The technique and practices of the anesthesia provider can be a source of anesthesia gas leaks as well as endotracheal cuffs which are insufficiently inflated, uncuffed tubes used in children, face masks which are poorly fitted (eg elderly patients without teeth or bearded patients), gas flow turned to the on position before placing the mask on the patient, and vaporizers filled in the "on" position. Perioperative team members that are routinely exposed include anesthesia providers, surgeons, perioperative RNs, surgical technicians, first assistants, anesthesia technicians, post anesthesia nurses and nursing assistants. Other persons that may periodically be exposed to anesthesia gases include radiology technicians, medical sales representatives, and contract personnel (eg perfusionists). The circulating nurse often assists the anesthesia provider during patient induction and emergence from anesthesia and may be exposed to higher concentrations of anesthetic gases during this time along with the anesthesia provider. Nurses working in the PACU are exposed to volatile anesthetic gases that are exhaled by patients. Pregnant perioperative personnel may be at higher risk. AORN often gets inquiries on our Clinical Consult line about protecting pregnant personnel from exposure to many chemicals in the perioperative setting.

The use of anesthetic waste gas scavenging systems is widespread and most people are functioning under the assumption they are protected. This may be an erroneous assumption. AORN supports research that is directed toward reducing occupational exposure to vapors from halogenated anesthetic vapors. AORN further supports education of nurses regarding the advances in science and technology that support the reduction of exposure to halogenated anesthetic vapors.

Thank you for this opportunity to comment on Waste Halogenated Anesthetic Agents

The AORN Workplace Safety Committee

**Miller, Diane M.**

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**From:** ljb038@aol.com  
**Sent:** Wednesday, April 19, 2006 7:12 AM  
**To:** cpeters@aorn.org; NIOSH Docket Office  
**Cc:** Lbutler4@clarian.org  
**Subject:** Re: docket number NIOSH-064

Carol

You did a great job with your response. We will share this with the Coommittee during our conference call.

Thanks for your astute effort to this request with such a short notice.

Lorraine

-----Original Message-----

**From:** Carol Petersen <cpeters@aorn.org>  
**To:** nioshdocket@cdc.gov  
**Cc:** Lbutler4@clarian.org; ljb038@aol.com; Carol Petersen <cpeters@aorn.org>  
**Sent:** Tue, 18 Apr 2006 23:24:20 -0600  
**Subject:** docket number NIOSH-064

Attached are comments regarding the waste halogenated anesthetic agents; isoflurane, desflurane and sevoflurane from the AORN Workplace Safety Committee.

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**Carol Petersen RN BSN MAOM CNOR**  
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800.755.2676 ext 392  
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