TABLE 2
(OAR 333-535-0300)
VENTILATION REQUIREMENTS FOR HOSPITAL AREAS AFFECTING PATIENT CARE 1/
(REFER TO NOTES AT END OF TABLE FOR ADDITIONAL INFORMATION)

AREA DESIGNATION	AIR MOVEMENT RELATIONSHIP TO ADJACENT AREA 2/	MINIMUM OUTSIDE AIR CHANGES PER HOUR 4/	MINIMUM TOTAL AIR CHANGES PER HOUR 4/, 18/	**RECIRCULATED BY MEANS OF ROOM UNITS 5/**	**ALL AIR EXHAUSTED DIRECTLY OUTDOORS 6/, 3/**	**DESIGN TEMPERATURE DEGREES 8/**
CRITICAL CARE AREAS						
Operating Room (General Surgery) 14/	out	(4)	15	No	--	70/75
Operating Room (Outpatient/Dental) 14/	out	(3)	15	No	--	70/75
Trauma Room 9/	out	(3)	15	No	--	70/75
Delivery Room, C-Section 14/	out	(3)	15	No	--	70/75
Cardiac Cath.[&], Invasive Special Procedures & Critical Care X-Ray	out	(3)	15	No	--	70/75
Endoscopy Rooms	in	(2)	10	No	Yes	70/75
Cystoscopy Room	out	(2)	10	No	--	70/75
Nursery Suite (Normal Newborn)	out	2	6	No	--	75
Nursery (Special Care & NICU)	out	2	6	No	--	75
Post-Anesthesia Recovery Room 14/	--	(2)	6	No	--	75
Intensive Care	--	2	6	No	--	70/75
NON CRITICAL AREAS						
LDR Room 15/	--	2	6	No	--	70/75
Patient Room	--	(2)	6	--	--	75
Patient Corridor	--	(1)	4	--	--	--
Isolation Room Airborne Infectious 10/	in	(2)	12	No	Yes	70/75
Protective Environment Room 10/	out	(2)	12	No	--	70/75
Isolation Alcove or Anteroom	out/in	--	12	No	Yes	--
Emergency waiting room 19/	in	(2)	6	No	Yes 19/	--
Examination Room	--	(2)	6	--	--	75
Medication Room	out	(2)	4	--	--	--
Pharmacy	out	(2)	4	--	--	--

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Treatment Room	--	(2)	6	--	--	75
X-Ray, Scanner, CT, MRI, & Ultrasound	--	(2)	6	--	--	75
EEG, EMG & EKG Rooms	--	(2)	6	--	--	75
Airborne Infectious & Inhalation Therapy	in	(2)	6	No	Yes	75
Minor Procedures 13/	out	(2)	6	--	No	75
Minor Procedure Recovery	--	(2)	6	No	--	75
Bronchoscopy (includes holding, treatment and recovery)	in	(2)	12	No	Yes	--
Radiation Therapy Treatment	--	(2)	6	--	--	75
Physical Therapy & Hydrotherapy	(in)	(2)	6	--	--	75
Dental Operatory 14/	in	2	10	No	Yes	75
Soiled Utility, Workroom Holding, Bio-Hazard	in	2	10	No	Yes	--
Clean Utility, Workroom, Holding 20/	(out)	2	4	No	--	--
Autopsy	(in)	(2)	12	No	Yes	--
Darkroom	in	(2)	10	--	Yes	--
Non-Refrigerated Body Holding Room 11/	in	optional	10	--	Yes	--
Toilet Room	(in)	optional	10	--	Yes	70
Bathing Room	(in)	optional	10	--	Yes	75
Janitor's Closet	in	optional	10	No	Yes	--
Sterilizer Room (Equipment), Instrument Processing	(in)	(2)	10	--	Yes	--
ETO - Sterilizer Room 16/	in	optional	10	No	Yes	75
Linen & Trash Chute Rooms	in	optional	10	No	Yes	--
Laboratory General 7/	in	(2)	6	--	Yes	--
Hot Lab(Nuclear Medicine)17/	(in)	(2)	6	No	Yes	--
Pathology	(in)	(2)	6	No	Yes	--
Cytology	(in)	(2)	6	No	Yes	--
Biochemistry	(out)	(2)	6	No	Yes	--
Histology	(in)	(2)	6	No	Yes	--

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Bacteriology	(in)	(2)	6	No	Yes	--
Serology	(out)	(2)	6	No	Yes	--
Glass washing (Laboratory)	(in)	(2)	10	--	Yes	--
Sterilizing	(in)	(2)	10	--	Yes	--
Food Preparation Center 12/	(out)	(2)	10	No	--	--
Warewashing (Food Preparation)	(in)	(2)	10	No	Yes	--
Dietary Dry Storage	(in)	(2)	2	--	--	--
Laundry, General	--	(2)	10	--	Yes	--
Soiled Linen (sorting & storage)	(in)	optional	10	No	Yes	--
Clean Linen	(out)	optional	2	--	--	--
Anesthesia Storage (See Code Requirements) 14/	--	optional	8	--	Yes	--
Soiled Room, Decontamination	(in)	2	6	No	Yes	--
Clean Workroom & Sterile Storage 20/	(out)	2	4	No	--	75
Administrative Areas	--	optional	2	--	--	--
Pantry Nourishment	(out)	optional	2	--	--	–

NOTES APPLICABLE TO TABLE 2:
"VENTILATION REQUIREMENTS FOR HOSPITAL AREAS AFFECTING PATIENT CARE"

1/ This table covers ventilation standards for comfort, as well as for asepsis and odor control, in areas of acute care hospitals that directly affect patient care. Areas where specific standards are not given shall be ventilated in accordance with ASHRAE Standard 62, "Ventilation for Acceptable Indoor Air Quality Including Requirements for Outside Air." Specialized patient care areas including organ transplant units, burn units, etc., shall have additional ventilation provisions for air quality control as may be appropriate. OSHA standards and/or NIOSH criteria include special ventilation requirements for employee health safety within health care facilities. The agency responsible in Oregon for enforcement is the Workers' Compensation Department.

2/ Design of the ventilation system shall, insofar as possible, provide that air movement is from "clean to less clean" areas. However, continuous compliance may be impractical with full utilization of some forms of variable air volume and load shedding systems which may be used for energy conservation. Those areas which do require positive and continuous control are noted with "out" or "in" to indicate the required direction of air movement in relation to the space named. Rate of air movement may, of course, be varied as needed within the limits required for positive control. Where indication of air movement direction is enclosed in parentheses, continuous directional control is required only when the room is in use or where room use may otherwise comprise the intent of movement from clean to less clean. Air movement for rooms with dashes and non-patient areas may vary as necessary to satisfy the system used. Additional adjustments may be needed when space is unused or unoccupied and air systems are shut down or reduced.

3/ To satisfy exhaust needs, additional replacement air from outside may also be necessary.

4/ Number of total air changes may be reduced when the room is unoccupied if provisions are made to insure that the number of air changes indicated is re-established any time the space is being utilized. Where the number of outside air changes per hour is enclosed in parentheses, outside air qualities may be reduced when the room is unoccupied, if provisions are made to insure that outside air rates are re-established any time the space is being utilized. Where the number of outside air

changes per hour is enclosed in parentheses, outside air qualities may be reduced when the room is unoccupied, if provisions are made to insure that outside are rates are re-established any time the space is being utilized. Adjustments shall include provisions so that the direction of air movement shall remain the same when the number of air changes is reduced.

5/ Because of cleaning difficulty and potential for buildup of contamination, recirculating room units shall not be used in critical areas marked with "no". Isolation and intensive care unit rooms may be ventilated by reheat induction units in which only the primary air supplied from a central system passes through the reheat unit. Gravity type heating or cooling units, such as radiators or convectors, shall not be used in operating rooms and other special-care areas.

6/ Air from areas with contamination and/or odor problems shall be exhausted to the outside and not recirculated to other areas. Note that individual circumstances may require special considerations for air exhaust to outside, e.g., an intensive care unit where patients with pulmonary infection might be expected and rooms for burn patients.

7/ The overall laboratory area shall be maintained at a negative pressure with respect to the surrounding areas.

8/ Dual temperature indications (such as 70/75) are for an upper and lower variable range within which the room temperature must normally be controlled. A single figure indicates required minimum heating or cooling design capacity. Nothing in this rule shall be construed as precluding the use of the temperatures higher or lower than those noted when the patients' comfort and medical conditions make differing temperatures desirable. Occupied areas not normally utilized by inpatients may have design temperatures of 68 degrees Fahrenheit for heating and 78 degrees Fahrenheit for cooling. Unoccupied areas such as storage, etc., shall have temperatures appropriate for the function intended.

9/ The term "trauma room" as used here is the operating room space in the trauma cent that is routinely used for emergency surgery. The first aide room and/or "emergency room" used for general initial treatment of accident victims may be ventilated as noted for the "treatment room."

10/ Infectious isolation is a room with an inward air movement relationship to adjacent areas where a patient with airborne infectious diseases may be a risk to the surrounding area. Protective isolation is a room with an outward air movement relationship to adjacent areas where the patient may be at risk from the surrounding areas. Protective environment rooms shall be designed to provide directed airflow from the cleanest patient care area to less clean areas. These rooms shall be protected with HEPA filters at 99.97 per cent efficiency for a 0.2 um sized particle in the supply airstream. Rooms with reversible airflow provisions for the purpose of switching between airborne infectious and protective environment isolation rooms are not acceptable.

Each infectious isolation room shall have a permanently installed and labeled visual mechanism to constantly monitor the negative pressure status to the room when occupied by a patient with airborne infectious disease. The mechanism shall continuously monitor the direction of the air flow.

11/ The non-refrigerated body holding room would be applicable only for those facilities that do not perform autopsies on site and utilize the space for short periods while waiting for body transfer to be complete. Design temperature given is for cooling.

12/ Food preparation centers shall have ventilation systems that have an excess of air supply for "out" air movement when hoods are not in operation. The number of air changes may be reduced or varied to any extent required for odor control when the space is not in use.

13/ Minor Procedure Rooms are rooms where non-invasive and non-anesthetizing procedures are performed.

14/ NIOSH criteria documents regarding occupational exposure to waste anesthetic gases and vapors, and control of occupational exposure to nitrodoxide in the dental operatory indicate a need for both local exhaust (scavenging) systems and general ventilation of the areas in which respective gases are utilized.

15/ Ventilation levels indicated for LDR rooms are for rooms in which no or only occasional small amounts of anesthesia gases are delivered and when restrictions for use are included in the hospital's written anesthesia policy. Ventilation in all other LDR rooms shall equal that of delivery room.

16/ Specific regulations exist regarding ethylene oxide (ETO) use under rules of the state Workers' Compensation Department, OAR Chapter 437, Division 156. These rules include specific requirements for local exhaust of the ETO sterilizer. Also, see OAR 333-074-0355(4)(a)(R) for further requirements.

17/ There are special requirements imposed by the U.S. Nuclear Regulatory Commission (Regulatory Guide 10.8-1980) regarding use of Xenon 133. These standards are not, however, adopted as a rule by the State of Oregon.

18/ Air change requirements indicated are minimum values. Higher values should be used when required to maintain indicated room conditions (temperature and humidity), based on the cooling load of the space (lights, equipment, people, exterior walls and windows, etc.)

19/ A ventilation system serving Emergency Waiting Rooms may recirculate air if HEPA filters are used. In this application, the return air shall be passed through the HEPA filters before it is introduced into any other spaces.

20/ When sterilizers requiring exhaust are located within a clean utility, workroom or sterile storage room, local exhaust shall be provided while maintaining the outward air movement relationship to adjacent areas.