NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS
Marine Corps Base
Camp Lejeune, North Carolina 28542

14 Sept 87
Date

From: Director
To: Da
Subj: Naval Hospital ltr 6260, 3A
371/87-318-3a of 4 Sept 87
attached

See See PP4

E. Bitz may want to develop
SOP for implementation
of recommendation in PP4
of Subj ltr.

Julian

ASSISTANT CHIEF OF STAFF, FACILITIES
HEADQUARTERS, MARINE CORPS BASE

DATE 9-10-87

TO:

BASE MAINT O	DIR, FAMILY HOUSING
PUBLIC WORKS O	DIR, BACHELOR HOUSING
COMM-ELECT O	BASE FIRE CHIEF
DIR., NAT. RESOURCES & ENV. AFFAIRS	

ATTN: Mr Wooten

1. Attached is forwarded for ~~info~~/action. as appropriate.

2. Please initial, or comment, and return all papers to this office.

3. Your file copy.

by direction

"LET'S THINK OF A FEW REASONS
WHY IT CAN BE DONE"

MCBCL 5216/21 (REV. 04-85)

DEPARTMENT OF THE NAVY
NAVAL HOSPITAL
CAMP LEJEUNE, NORTH CAROLINA 28542-5008

IN REPLY REFER TO
6260.3a
371/87-318-3a
04 SEP 87

From: Commanding Officer
To: Commanding General, Marine Corps Base, Camp Lejeune, North Carolina 28542-5008 (Attn: AC/S Facilities Dept.)

Subj: INDUSTRIAL HYGIENE VENTILATION SURVEY OF LABORATORY HOODS IN THE ENVIRONMENTAL CHEMISTRY AND MICROBIOLOGY LAB

Ref: (a) CO, NHCLNC ltr 6260.3a/371/87-152-3a dtd 29 JUN 87
(b) OPNAVINST 5100.23B
(c) Industrial Ventilation, 19th edition, ACGIH

Encl: (1) Work Practices for Laboratory Hoods

1. Introduction. On 31 August and 01 September 1987, an Industrial Hygiene Ventilation Survey of the Laboratory Hoods in the Environmental Chemistry and Microbiology Laboratory (Water Lab), Natural Resources and Environmental Affairs Department (NREAD), Bldg. 65, Camp Lejeune, was conducted by Mr. D. Patton, Environmental Health Technician, Occupational Health/Preventive Medicine Department. This report is submitted as an addendum to the Baseline Survey, reference (a).

2. Equipment. The survey was conducted in accordance with reference (b) utilizing a Kurz Velometer, Model 441S, Serial Number PCE 12131. Annual internal calibration was completed on 13 July 1987. Battery checks were performed prior to and after the survey.

3. Discussion.

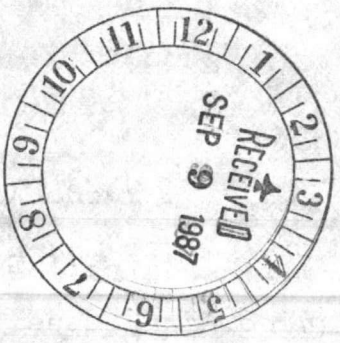
a. There are four Laboratory Hoods in use in the Water Lab. They are used for a variety of laboratory procedures, which include waste water analysis, oil and grease content analysis, acid mixing, and general chemical mixing. The survey results of each hood are as follows:

(1) Waste Water Analysis Hood: 90 CFM/FT^2 (sash fully open)

(2) Oil and Grease Analysis Hood: 105 CFM/FT^2 (sash fully open)

(3) Acid Mixing Hood: 163 CFM/FT^2 (sash open 15 inches)

(4) General Mixing Hood: 74 CFM/FT^2 (sash fully open)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1987

Subj: INDUSTRIAL HYGIENE VENTILATION SURVEY OF LABORATORY HOODS IN THE ENVIRONMENTAL CHEMISTRY AND MICROBIOLOGY LAB

b. The volume of air drawn into each hood is within or above the acceptable range of 60-150 CFM/FT^2 recommended in reference (c).

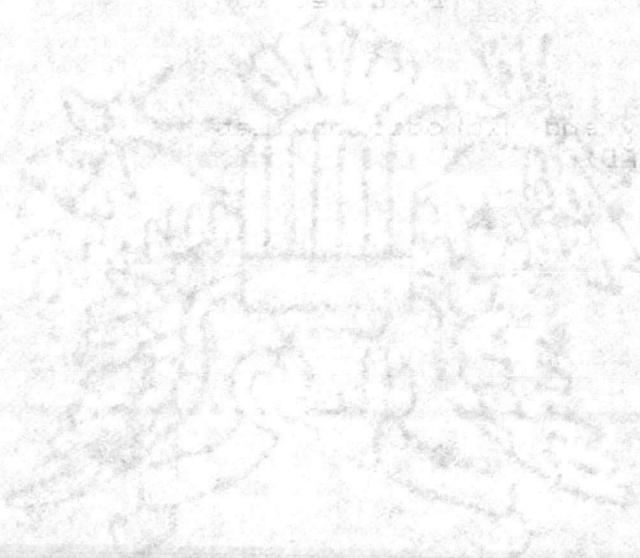
c. The quantity of air per square foot drawn into the hood can be increased as needed by lowering the sash to reduce the face area of the hood. For example, the air flow into the waste water analysis hood can be increased from 90 CFM/FT^2 to 136 CFM/FT^2 by closing the sash to 18 inches above the airfoil sill.

4. Comments/Recommendations. For safe, efficient use of the Laboratory Hoods, it is recommended that the Work Practices for Laboratory Hoods, enclosure (1) from reference (c) be adhered to at all times when hoods are in use.

5. Point of contact for further information or assistance is Mr. D. Patton at extension 2707.

M. P. GENTRY
By direction

Copy to:
Environmental Chemistry and Microbiology Lab
Natural Resources (NREAD)
Base Safety



WORK PRACTICES FOR LABORATORY HOODS

No large open face hood with a low face velocity and a work standing at the face can provide complete safety against all events which may occur in the hood, nor for volatile or otherwise airborne contaminants with a TLV in the low part per billion range. For more ordinary exposures, a properly designed hood in a properly ventilated room can provide adequate protection. However, certain work practices are necessary in order for the hood to perform capably. The following work practices are generally required; more stringent practices may be necessary in some circumstances.

1. Conduct all operations which may generate air contaminants at or above the appropriate TLV inside a hood.
2. Keep all apparatus at least 6 inches back from the face of the hood. A stripe on the bench surface is a good reminder.
3. Do not put your head in the hood when contaminants are being generated.
4. Do not use the hood as a waste disposal mechanism except for very small quantities of volatile materials.
5. Do not store chemicals or apparatus in the hood. Store hazardous chemicals in an approved safety cabinet.
6. Keep the hood sash closed as much as possible.
7. Keep the slots in the hood baffle free of obstruction by apparatus or containers.
8. Minimize foot traffic past the face of the hood.
9. Keep laboratory doors closed (exception: some of the laboratory design requires the lab doors to be open).
10. Do not remove hood sash or panels except when necessary for apparatus set-up; replace sash or panels before operating.
11. Do not place electrical receptacles or other spark sources inside the hood when flammable liquids or gases are present. No permanent electrical receptacles are permitted in the hood.
12. Use an appropriate barricade if there is a chance of explosion or eruption.
13. Provide adequate maintenance for the hood exhaust system and the building supply system. Use static pressure gauges on the hood throat, across any filters in the exhaust system, or other appropriate indicators to insure that exhaust flow is appropriate.
14. If hood sash is supposed to be partially closed for operation, the hood should be so labeled and the appropriate closure point clearly indicated.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS	
WORK PRACTICES FOR LABORATORY HOODS	
DATE *1-86*	*VS-205.2*

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DEPARTMENT OF THE NAVY
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