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CORPORATE SAFETY DEPARTMENT
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PLAINTIFF'S EXHIBIT

Q-875

ACGIH PROPOSES AND ADOPTS IMPORTANT CHANGES IN PHYSICAL AGENTS AND THRESHOLD LIMIT VALUES AT MAY MEETING

Report of Physical Agents Committee

1. Recommend the adoption of the heat stress Threshold Limit Values which were published as a notice of intent in 1972.
2. Recommend the adoption of the UV threshold limit values which were published as a notice of intent in 1972 with the following changes:
 - (1) Define acceptance angle as follows - All the preceding TLV's for ultraviolet energy apply to sources which subtend an angle less than 08 degrees. Sources which subtend a greater angle need to be measured only over an angle of 80 degrees.
 - (2) Add "fluorescent" to list of sources in the first paragraph.
 - (3) Drop "Solar radiation" from the first paragraph. (Deleted from report.)
 - (4) Add footnote to "exclusion of lasers," to say "see laser TLV."
3. Recommend the adoption of the Laser threshold limit values which were published as a notice of intent in 1972 with minor changes in some tables in order to be consistent with ANSI 2-136 Laser Safety Standard.
4. Recommend the adoption of a notice of intent to change the Noise threshold limit values as follows:

Proposed Change in TLV - Noise

These threshold limit values refer to sound pressure levels and durations of exposure that represent conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect on their ability to hear and understand normal speech. The medical profession has defined hearing impairment as an average hearing threshold level in excess of 25 decibels (ANSI-S3.6-1969) at 500, 1000, and 2000 Hz, and the limits which are given have been established to prevent a hearing loss in excess of this value. The values should be used as guides in the control of noise exposure and, due to individual susceptibility, should not be regarded as fine lines between safe and dangerous levels.

Continuous or Intermittent

The sound level shall be determined by a sound level meter, conforming as a minimum to the requirements of the American National Standard Specification for Sound Level Meters. S1.4 (1971) Type S2A, and set to use an A-weighted network with slow meter response. Duration of exposure shall not exceed that shown in Table 1

These values apply to total duration of exposure per working day regardless of whether this is one continuous exposure or a number of short-term exposures but does not apply to impact or impulsive type of noise.

When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions:

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots \frac{C_n}{T_n}$$

exceeds unity, then, the mixed exposure should be considered to exceed the threshold limit value, C1 indicated the total duration of exposure at a specific noise level, and T1 indicates the total duration of exposure permitted at that level.

Impulsive or Impact Noise

It is recommended that exposure to impulsive or impact noise should not exceed 140 decibels peak sound pressure level. Impulsive or impact noise is considered to be those variations in noise levels that involve maxima at intervals of greater than one per second. Where the intervals are less than one second, it should be considered continuous.

Table 1

Threshold Limit Values

Duration per day Hours	Sound Level (a)
16	dBA
8	80
4	85
2	90
1	95
1/2	100
1/4	105
1/8	110
	115*

*No exposure to continuous or intermittent in excess of 115 dBA.

(a) Sound level in decibels as measured on a sound level meter, conforming as a minimum to the requirements of the American National Standard Specification for Sound Level Meters, S1.4 (1971) Type S2A, operating the A-weighted network slow meter response.

Report of Chairman of the TLV Committee

The TLV Committee meeting in plenary session May 3 and 4 proposed for adoption by the ACGIH membership the attached changes and additions to appear in the TLV Booklet for 1973.

KEY POINTS:

1. Proposed 1972 heat stress TLV's are adopted. This is first time any heat stress standards have been adopted.
2. Noise TLV of 80 dbA for 8 hr. has been proposed. (particularly significant because difficult to achieve in practice)
3. A list of tentative TLV's proposed last year has been adopted. Materials listed of special Company interest include: ethylene glycol vapor, isopropyl ether, methyl bromide, and perlite.
4. A list of proposed changes in current values include iron oxide fume and sodium hydroxide.
5. A list of TLV's for compounds previously not included is given. Entries of Company interest include diethyl phthalate and potassium hydroxide.

WHAT TO DO NOW:

This information should be circulated among technical personnel with the need to know. If the 1972 TLV list is not on hand, copies can be obtained directly from:

Secretary-Treasurer
American Conference of Governmental
Industrial Hygienists
Post Office Box 1937
Cincinnati, Ohio 45201

Price is \$.75.

The 1973 list is expected to be published in the Fall.

REFERENCE: Occupational Safety & Health Reporter, Bureau of National Affairs, Inc.
pages 1557-1560.

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TRANSFERS FROM STATUS OF TENTATIVE LISTING TO LIST OF ADOPTED VALUES

in accordance with general policy of transfer after 2-year period without indication for action otherwise.

<u>SUBSTANCE</u>	<u>ppm</u>	<u>mg/m³</u>	<u>mppcf</u>
Acetaldehyde	100	180	
C Acetic anhydride	5	20	
Ammonia	25	18	
Bismuth telluride	—	10	
Bismuth telluride (Se-doped)	—	5	
Butane	500	1,200	
Chloroform (trichloromethane)	25	120	
Coal dust (bituminous)	—	2	
(Respirable dust fraction < 5% quartz).			
(If > 5% quartz use respirable mass formula)			
1,2-Dibromoethane (ethylene dibromide)--Skin	20	145	
1,1-Dichloroethane	200	820	
Dichloroethyl ether--Skin	5	30	
Diisobutyl ketone	25	10	
Diquat	—	0.5	
2-Ethoxyethanol--Skin	100	370	
Ethylene glycol, particulate	—	10	
Ethylene glycol, vapor	100	260	
Fluorine	1	2	
Germanium tetrahydride (Germane)	0.2	0.6	
Hexafluoroacetone	0.1	0.7	
Isopropyl ether	250	1,050	
Lead, inorganic compounds fumes & dusts	—	0.15	
Methylacrylonitrile--Skin	1	3	
Methyl bromide--Skin	15	60	
Methylcyclohexanol	50	235	
o-Methylcyclohexanone--Skin	50	230	
Perlite	—	—	30
C Phenylphosphine	0.05	0.25	
Silicon	—	10	
C Subtilisins (Proteolytic enzymes as 100% pure crystalline enzyme)	—	0.0003	
Sulfur tetrafluoride	0.1	0.4	
Toluene	100	375	

CHANGES IN ADOPTED VALUES - TENTATIVE LISTINGS

All changes that are recommended are based on documented evidence which is available from the chairman.

<u>Substance</u>	<u>From</u>	<u>To</u>
Cadmium oxide fume	0.2 mg/m ³	C 0.05 mg/m ³
Carbon dioxide	Documentation to permit TLV of 15,000 ppm provided certain stipulated medical criteria are met.	
bisChloroethyl ether	C 15 ppm	5 ppm
Copper fume	0.1 mg/m ³	0.2 mg/m ³
Iron oxide fume	10 mg/m ³	5 mg/m ³
Paraffin wax fume	1 mg/m ³	2 mg/m ³
Sodium hydroxide	2 mg/m ³	C 2 mg/m ³

ADDITIONS TO TENTATIVE LISTINGS

All new additions are based on documented evidence and is available from the chairman.

<u>Substance</u>	<u>ppm</u>	<u>mg/m³</u>
Carbon tetrabromide	0.1	1.4
Cesium hydroxide		2
Catechol	1	4.5
Chlorodifluoromethane	1000	3500
Chloropyrifos (Dursban R)--Skin		0.2
o-Chlorostyrene	50	283
Clopidol (Coyden R)		10
2-Chloro-6-(trichloromethyl) pyridine (N-Serve R)		10
Crufomate (Ruelene R)		5
Dicyclopentadienyl iron		10
Diethyl phthalate		5
3,5-Dinitro-o-tolusmide (Zonalene R)		5
Formamide		20
Methylethyl ketone peroxide	C 0.2	1.5
Picloram (Tordon R)		10
Potassium hydroxide		C 2
Tricyclohexyl tin hydroxide (Plictran R)		5
Vinylidene chloride	10	40

The TLV Committee recommends that the foregoing changes in the TLV booklet be adopted by the Conference and that the 1973 booklet contain these changes.