



## **PLEASE NOTE:**

**This document contains scanned images of pages of the printed edition of PPM magazine. All content dates from the original time of publication. All information given may be out of date, including but not limited to text, illustrations, graphs, statistics, and contact details. Do not use or apply any of the information without first ensuring that it is correct, and that it complies with current regulations in your own jurisdiction.**

## **IMPORTANT**

Professional Protection Magazine is published by Safety Equipment Australia Pty Ltd

### **Conditions of Use**

This web site is made available on the following conditions of use, which you accept by accessing and using the site.

You should read these conditions carefully. If these conditions are not acceptable to you, you should not access or use the site.

Information made available at this site is provided as by way of background and not as advice in relation to particular needs or requirements. We believe that information included in this site was accurate and reliable at the original time of publication of the printed material, but to the fullest extent possible under law we expressly exclude all warranties and any liability to any person for any decision made or act taken in reliance upon this information, whether that person is you as a user of this web site or anyone else. This exclusion extends to direct, indirect and consequential loss or damage, to the fullest extent permitted by law.

In particular, information included in this site is NOT a substitute for professional advice and assistance. It is not suitable to be relied upon in particular industrial or other applications. You should obtain professional advice and assistance about your particular circumstances and about appropriate tests, training, instructions, and control and supervision procedures for your operating environment. Information obtained from this site is not fit for use for any of those purposes.

This site also includes information derived from third party sources. We make no representation as to the adequacy of testing or other verification of data made available from third party sources.

The information provided on this site is intended solely for the use of residents in Australia and New Zealand and must not be used by residents in other jurisdictions.

### **Links to and from this site**

Please seek our permission before linking other sites on the internet to this web site.

Neither the publisher nor the editor exercise control over web sites that may be linked to this site from time to time. Therefore, we cannot warrant the accuracy or truth of any material contained in linked web sites, nor can we take any responsibility for material appearing on these sites.

### **Intellectual property**

This publication is copyright © throughout the world under the Berne Union and the Universal Copyright Convention.

Pictorial and other material appearing on this site must not be used (other than by way of reading that material using a computer to view this web site), linked to or copied without our express permission.

Marks used on this site are trade marks of Safety Equipment Australia Pty Limited and generally are registered in Australia. Other marks appearing on this site are the property of their owners and may or may not be registered in any given jurisdiction.



# professional protection magazine

Published by Safety Equipment Australia in the interest of industrial safety in Australia

ISSN 1031-7996

Vol 9 Number 30, March 1994

Print Post Approved PP 255003/01482

## 15+++++

### Is that all you look for on the pack?

*Australians have been told to slip, slop, slap and wrap for a number of years. But the 15+ mark has become such a magical feature that few people look any further. What does 15+ mean? And can you trust it?*

The Sun Protection Factor (SPF) is an indicator that shows the ability of a sunscreen cream to prevent reddening of the skin of an average person due to ultra-violet radiation, as compared with a person who is not wearing any sun protection.

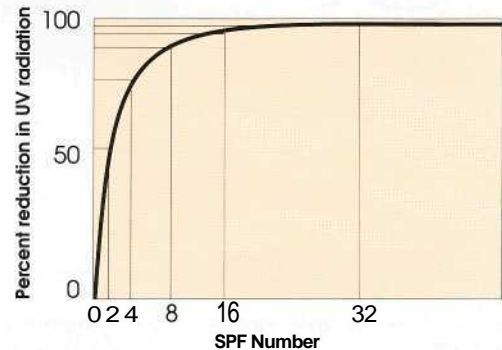
### Misconceptions

There are several common misunderstandings about the sun protection factor,

- The SPF does *not* directly measure how long you can stay out in the sun safely.
- A sunscreen with a factor of, say, 10 does *not* reduce twice as much UV radiation compared to another sunscreen with a factor of 5.
- The protection factor does not stop at 15. There are sunscreens with a protection factor of 30 or 60. But the difference in UV reduction is small.
- A sun screen lotion with a particular SPF rating may not actually live up to its promise; if it has been stored improperly, it may have lost its efficacy.

### Not a straight line... or is it?

The UV reduction capacity of a cream does not increase in proportion to the SPF label. SPF 10 is not twice as strong as SPF 5. The reduction in UV radiation increases exponentially, as illustrated by the graph below:



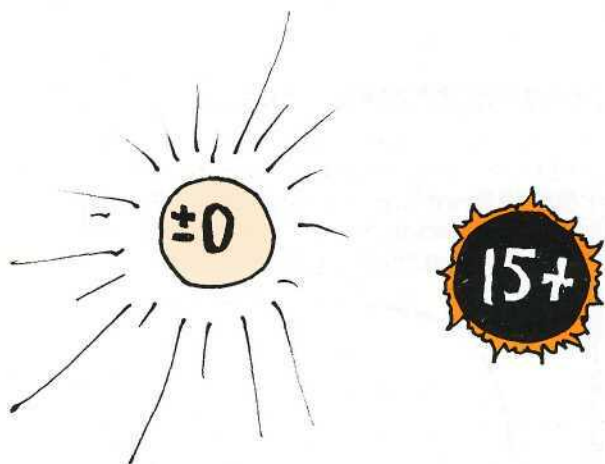
### IN THIS ISSUE:

<b>75+ sun screens</b>	1
<b>Noise and the unborn child</b>	3
<b>Acetaldehyde</b>	3
<b>Bakery workers and allergy</b>	4
<b>Methyl Chloride</b>	4
<b>Contact lenses and respirators</b>	5
<b>Wallchart: Four Fatal Factors</b>	6-7
<b>Active Noise Reduction</b>	8
<b>The importance of the rest</b>	10
<b>Cool air displacement of contaminated air</b>	12

Australian Standard does not allow sun screen products to be labelled over SPF 15. The reason for this is that difference between, say SPF 16 and SPF 32 is very small (the reduction of UV radiation is 93.75% and 96.88% respectively in the case above). Thus, Standard prefers to label sun creams up to 15 with the actual sun protection factor, and all lotions above SPF 15 with the label 15+. The only way you can establish exactly the protection factor is to contact the manufacturer or pharmacist directly.

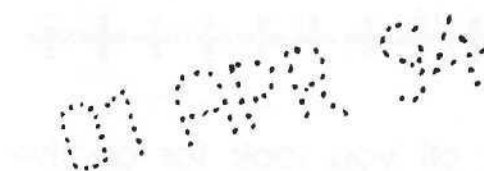
The reason for this ceiling, according to Australian Standard, is that people might be led to believe that a much higher number means much better protection.

However, not everyone agrees, and last year, there was vigorous discussion within Australian Standard.



The people who want to remove the SPF ceiling and allow manufacturers to label their goods with the actual protection factor argue that it is the dose of UV radiation we should look at, rather than the *reduction* capacity of the cream. If you adopt this viewpoint, it could be argued that an SPF 30 cream is doubly efficient compared to an SPF 15 cream, because theoretically, the total dose of UV radiation that is "let through" by the SPF 15 cream is 6.7%, whereas the SPF 30 cream only lets through half of that amount (3.3%).

The problem with the 15+ ceiling is that a person who uses a 15+ cream whose *actual* SPF is 40 might change his or her brand of sun cream to a product with only SPF 16. Both products will be labelled 15+. The total dose of UV rays will be more than double of what the person achieved with the original brand. Whose responsibility is it if the person sustains skin damage due to the difference?



## Expiry dates

Another problem is the fact that sun screen preparations are not required to carry expiry dates on the packaging, and only a few do. It is therefore possible to use cream that's been sitting in a cupboard for a couple of summers, or have been sweating in the glove box of the car. Indeed, you won't know whether the sun lotion you're buying has been standing on the pharmacy shelf for many months.

Sun screen lotions can lose their efficiency with time, or if subjected to heat, light and other conditions. Moves are underway to put expiry dates and storage instructions on packaging, but to the best of our knowledge, no regulations have yet been put in place.

The best advice, according to the Commonwealth Department of Health, is to buy a new sunscreen every summer season if you're an occasional user.



**Source:** Margo, Jill 1993, "Why 15+ failed to block out sun". *Sydney Morning Herald*; Marks, R. 1993, "Sun protection by numbers... more or less", *The Australian Standard*, Jan/Feb, pp. 6-7; Blake, R. 1993, "Lifting the limit", *The Australian Standard*, Jan/Feb, pp. 7-8

### IMPORTANT

*Professional Protection Magazine* is published by Safety Equipment Australia Pty Limited.

Views and opinions expressed in this publication are not necessarily those of the editor, nor of the publisher.

This publication is distributed with the understanding that:

- Neither the publisher nor the editor warrants the accuracy or truth of any source material contained in this publication.
- The publisher and editor are not engaged in the supply or distribution of any work, safety equipment, products, goods or services by virtue of the publication of this magazine.
- The publisher and editor are not responsible for the results of any actions taken on the basis of information in this publications, nor for any errors or omissions.

The publisher, authors and the editor expressly disclaim all and any liability to any person, whether a purchaser of this publication or not, in respect of anything and of the consequences of anything done or omitted to be done by any such person in reliance, whether whole or partial, upon the whole or any part of the contents of this publication.

Comments, views, queries and opinions are welcome. The editor reserves the right to edit and publish submitted material in whole or in part, unless requested otherwise.

This publication is Copyright throughout the world under the Bern Union and the Universal Copyright Convention.

Subscribers are welcome to use pictorial material, provided the source is acknowledged, but are requested to inform the publisher before doing so.

# Noise affects unborn ears

Pregnant women require quiet surroundings



The human embryo may sustain hearing damage by noise. If the mother is working in a noisy environment during pregnancy, the child stands a 3–4 greater chance of hearing damage than children whose mothers work in quiet surroundings.

The hearing damage may occur even if the noise kept to a lower level than the current "safe" level.

The unborn child is particularly vulnerable to low frequency infrasound; inaudible to humans. Sources of infrasound include ventilation systems compressors, motors, and transformers. A recent Canadian study shows that when the infrasound is mixed with "normal" noise, such as machinery and conveyor belts, the hearing damage occurs — even if the noise level is below 85 dB.

The study team recommends that pregnant women only be allowed to work in environment with a noise level well below the limit level.

The noise levels should also be kept low in the home during pregnancy.



Source: Ekelöf, Eva 1993, *Arbetsmiljö* no. 13 p. 12

## CHEMICAL FACTS

# Acetaldehyde

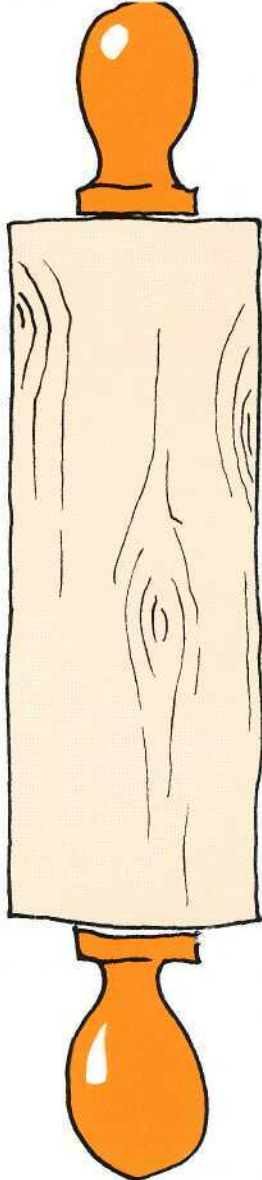
- Characteristics:** Colourless liquid. Very volatile.
- Odour:** Sharp, sweet odour.
- Aust. TWA:** 100 ppm — 180 mg/m<sup>3</sup>
- Fire:** Highly flammable. Explosive mix with air already below room temperature.
- Inhalation:** Sore nose and throat. Cough. Headache, fatigue, heart palpitations, unconsciousness. Kidney damage possible. Lung oedema may occur several hours after exposure. Repeated or prolonged exposure may result in liver damage.
- Skin contact:** Irritation and soreness, blushing of the skin. Skin may become whitened after exposure. Prolonged and repeated exposure may cause allergic eczema.
- Eye splashes:** Severe irritation. Mild corrosive damage. Prolonged and repeated exposure may cause eye inflammation.
- Swallowing:** Abdominal pain, nausea, vomiting, diarrhoea,
- Prevention:** Use enclosed systems if possible. Mechanical ventilation and local exhaust may be necessary. Vapour gathers at floors and low-laying areas. Keep containers tightly closed. Never mix acetaldehyde with other substances, unless deemed safe. Eye rinse stations should be available. No smoking, welding, open flames or sparks. Prevent electrostatic discharge from tools. Use non-spark tools and appliances. Use eye protection and gloves. Full face mask with Organic Vapour filter (Type A) or supplied air equipment may be required.



Source: Skyddsblad

# Our daily dread...

## Bakers suffer enzyme allergies



*A Finnish study shows that bakery workers suffer increased allergies to enzymes mixed into the flour.*

Enzymes are proteins that increase the speed of certain chemical reactions. Enzymes are used in food production, paper industry, cleaning detergent manufacture and other areas. In bakeries, enzymes are mixed into flour, partly as a preservative, and partly to improve the rising of the bread.

The study covered five bakeries and a flour mill. The enzymes were used in powder form, and were dispensed from open containers.

Eight per cent of bakery workers had developed increased sensitivity to enzymes. Twelve per cent were affected by flour.

Another study, published in France, showed that over 14 per cent of bakery workers suffered from inflammation of the mucous membranes in the nose. Over six per cent had asthma. The occur-

rence of asthma was commensurate with the number of years in flour handling.

When pouring and mixing flour with enzymes, dust concentrations of 18 mg/m<sup>3</sup> were measured in the air. Although baking enzymes are available in liquid form, most bakeries were conservative and preferred the conventional enzyme powder.

## CHEMICAL FACTS

# Methyl chloride

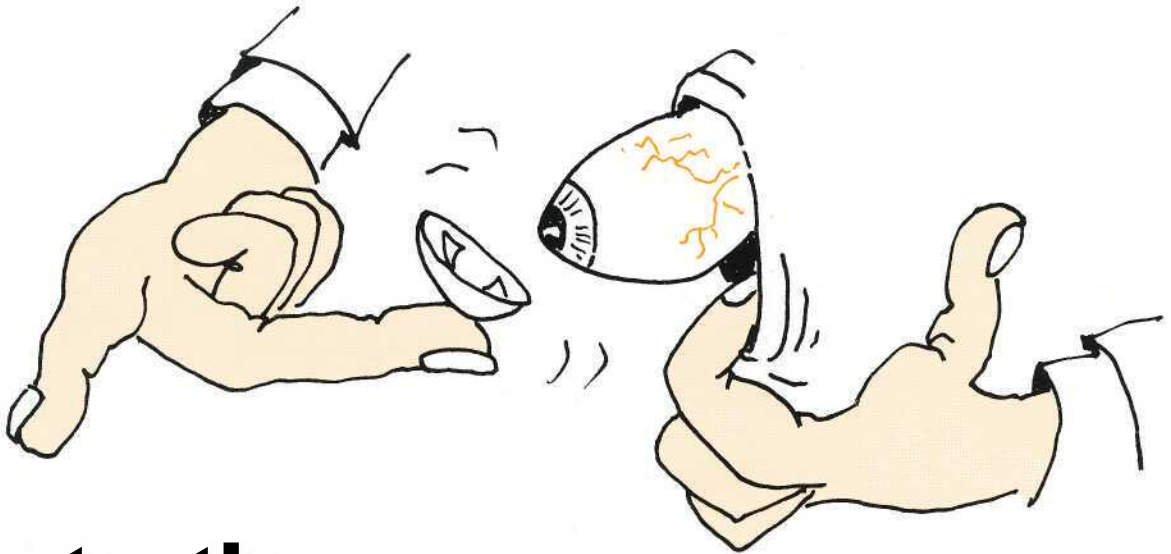
<b>Other names:</b>	Chloromethane Monochloromethane
<b>Characteristics:</b>	Colourless liquid/gas. Heavier than air. Slightly soluble in water.
<b>Odour:</b>	Slightly sweet odour, noticeable only in high concentrations.
<b>Aust. TWA:</b>	50 ppm — 105 mg/m <sup>3</sup>
<b>Fire:</b>	Highly flammable. Forms explosive mix with air,
<b>Inhalation:</b>	Affects the central nervous system. Delayed damage to circulation and metabolism. The primary effects may go unnoticed, Delayed effects may include vomiting, abdominal pains, headache, visual disturbances. Death may occur several days or weeks after exposure. Lung oedema possible.
<b>Skin contact:</b>	Frost damage due to rapid evaporation, Intense irritation. Necrosis.
<b>Prevention:</b>	Very efficient ventilation required, incl. floor exhaust. Emergency showers. Keep all work areas clean, No smoking, welding. Non-spark tools, Appliances should be encased and earthed. Keep containers away from heat, flame and sparks, Avoid exposure to sunlight, Prevent containers from falling over. Wear non-spark, antistatic, fire resistant clothing and gloves, Wear eye protection. Wear respiratory protection.



Source: Ekelöf, Eva 1993, *Arbetsmiljö* no. 13 p. 13



Source: Kuhn, Birett 1985, *Merkblätter Gefährliche Arbeitsstoffe*



# Contact!

## Is it OK to wear contact lenses in supplied air full face respirators?

*In the United States, the Occupational Health and Safety Administration prohibits the use of contact lenses while wearing a respirator. This prohibition has been challenged by prominent experts, Robert A. da Roza and Catherine Weaver.*

Records show that there have been no reports that could indicate that contact lenses were the cause of any accidents, as long as standard eye protection was worn.

In fact, another study found that there was a significant decrease in vision-related problems when users of SCBA equipment replaced their spectacles with soft contact lenses.

The fear may be that the contact wearer may develop a problem with the lenses, and may need to remove the respirator in order to adjust the lenses or remove them.

Another conceivable problem is that the lenses may simply drop out of the eyes, or could dry out due to the air flow in the supplied air respirator or SCBA.

A third difficulty could be caused by dirt, dust or smoke particles that enter the respirator during storage, and are then blown into the respirator and cause eye discomfort.

The survey found that these problems were minimal in comparison to incidents due to the wear of conventional spectacles in full facerespirators.

Lenses falling out or otherwise prompting the removal of the respirator were incidents that were not so urgent that the wearer could leave the contaminated area with the respirator still fitted.

Drying out of lenses and other irritation mainly happened to wearers who had trouble wearing contact lenses in their normal off-duty life. These people normally reverted to conventional spectacles as a natural preference.

Normal eye glasses are difficult to wear inside a full face respirator. Conventional frames are impossible to wear, as they render proper facial seal impossible. Other models may be impossible to get into their proper position.

There are a few points that contact lens wearers need to keep in mind:

- **If you have trouble wearing contact lenses in your daily life off work, you should probably not try to wear lenses in a respirator.**
- **Proper storage becomes even more crucial to contact lens users. The face piece should be kept in a sturdy plastic bag or other container that protects it from dirt, dust, smoke and other contaminants.**
- **Regulator connectors and hose connections should always be capped or otherwise covered when not in use.**
- **Some altered work routines could be applicable, for instance changing air cylinders or air hose connections with the respirator still on the face.**
- **The respirator should be fitted in clean, dust-free air, away from any sources of dirt or particles.**



Source: da Roza, Robert A., Weaver, Catherine 1990, "Is it safe to wear contact lenses with a full-facepiece respirator?", *Journal of the International Society for Respiratory Protection* vol. 8 issue 3

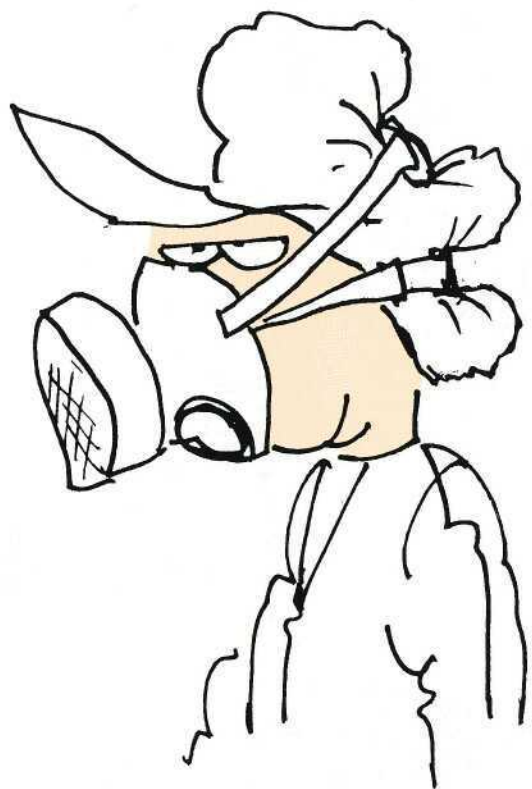
# MASK MANNERS



**STAY OUT OF DUSTY  
AREAS WHEN PUTTING  
ON THE MASK**



**DON'T WALK AROUND  
IN DUSTY AREAS  
WITH THE MASK  
AROUND YOUR NECK**



**NEVER PLACE THE  
HEAD HARNESS  
AROUND OTHER  
HEADGEAR**



**KEEP THE MASK AND  
FILTERS IN TOP  
CONDITION**



# Are your hands worth a nickel?

## Topics containing nickel cause skin allergies

Auto mechanics often complain of hand eczema and skin allergies. They frequently work with very irritating substances which dry out the skin. In turn, the skin becomes vulnerable to nickel and other substances.

A new study of 800 auto mechanics in Gothenburg states that nickel allergy is probably caused by using tools containing the metal.

The study is the first exploration of hand eczema in auto refinishing workshops. Previous surveys have concentrated on mechanics at car assembly plants.

Twelve per cent of auto mechanics suffer from hand eczema according to the study, but the real figure is probably closer to 20 per cent, due to the way the study was conducted.

The study covered car mechanics who answered a written questionnaire, and was complemented with random checks among the work force. The real percentage could be higher, since it may have been difficult for the respondents to differentiate between hand

eczema and dry skin. More than half of the cohort of 800 workers stated that they suffered from dryness in the skin.

The researchers were surprised at the proportion of nickel allergy sufferers, some eight per cent of workers with hand eczema.

Women may contract nickel allergy from jewellery, such as ear rings. However, the men in the study did not wear jewellery or have pierced ears, and had probably contracted nickel allergy from hand tools.

Many tools and machine parts shed nickel when handles, for instance wing nuts, spark plug wrenches, battery testers and levers.

Stainless tools did not shed any nickel. However, tools that had been painted with protective lacquer did release nickel where the paint had flaked and exposed the metal. Tool attachments and connections also commonly released nickel.

More than half of the cases of contact eczema were non-allergic. The auto mechanics hands were frequently exposed to severely irritating substances, such as oils, solvents and detergents. In addition, some 75 per cent of mechanics were using skin cleaners with abrasive scouring agents, which also were detrimental to the skin.

Younger workers were surprisingly likely to use skin cream before and after work, and to wear gloves. Older workers were less accepting of creams and gloves.



Source: *Forskning Pägår* 1993 no. 3, ref. Meding, B., Barregård, L., Marcus, K. "Hand Eczema in Car Mechanics" (yet to be published)



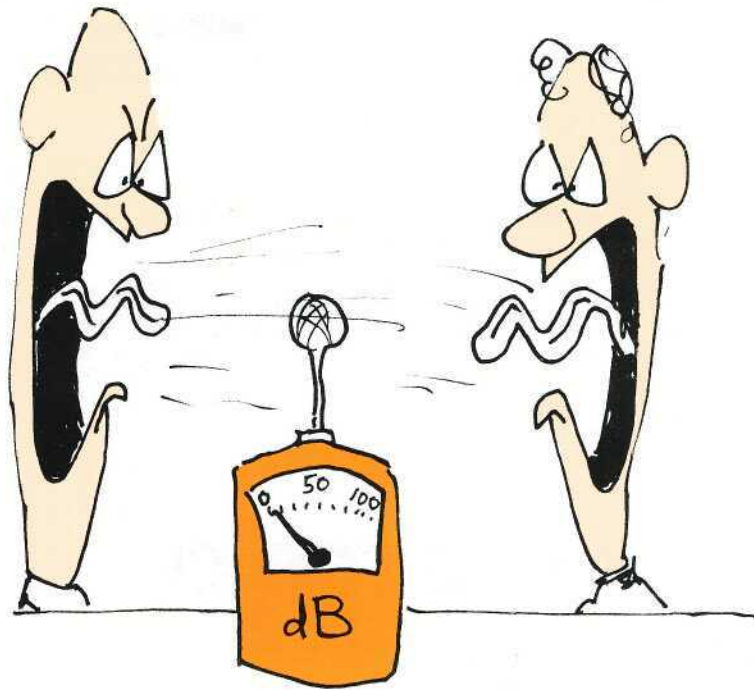
# Killing noise...

...with more noise?

*Active Noise Reduction has become a well-known concept. In short, it means that two sound waves of the same frequency but of the opposite phase cancel each other out.*

This becomes a very useful principle in hearing protection, especially in regard to low frequency noise of, say, 500 Hz and less.

Low frequency noise is very difficult to eliminate with conventional ear muffs, since the muffs would have to be much larger and heavier in order to protect the ears from the low noise.



Start with a sound wave... Add another wave that is the "mirror image" of the first one... ...and the two waves cancel each other out

The answer to the problem is electronically induced Active Noise Reduction to the ear muffs,

## Magic Mike

Active noise reduction ear muffs are fitted with a tiny microphone/sound module that identifies the noise, inverts the phase and plays it back against the noise at the precise level required to cancel out the sound waves.

The result? A good pair of ANR muffs give an overall noise reduction of at least 30 dB, **including** noise below 500 Hz.

Active Noise Reduction is an extremely critical science with very narrow margins for error. The sound wave must be **exactly** inverted by 180°. An error of only a few degrees could result in hearing damage.

The muffs must therefore be self-diagnosing: if there is any interference with the system,

causing internal oscillations in the muffs, the ANR system must be automatically disabled immediately. The muffs continue to provide effective protection through passive noise reduction (in other words, normal attenuation).



Source: Peltor AB 1992, Information document on ANR

Training is silver...  
Attitude is gold!



# Give me a break!

## Practical guidelines for rooms away from The work area

*Pauses, breaks and rest periods are important in any work situation. How should pauses and rest periods be structured? What should you do between work periods? How should the workplace be designed? Here are some new Swedish recommendations.*

There is a difference between a pause and a break. During a break, the employee is free to leave the work place, for instance to go to the bank or have a meal. The break is not considered to be part of the working hours. In some countries, breaks are compulsory. In Sweden, a break must follow any five-hour work period. Breaks shorter than 30 minutes are not recommended. A pause is an integral part of the work routine, and is counted as work time. In Sweden, tea breaks are considered to be pauses, not breaks. During the pause, the worker moves away from the work for a moment, and may be encouraged to perform relaxation exercises or other physical practices. In physically straining jobs, not only breaks but also pauses must be scheduled into the work shift.

## Room for rest

The Swedish National Board of Occupational Health & Safety gives the following guidelines for rest rooms and meal rooms:

- It should be possible to both eat and relax in the room.

- The room should be designed particularly for the health and well-being of workers.
- Ideal ceiling height is 2.4 metres. The ceiling should be no lower than 2.1 metres.
- The temperature in the room should not sink below +18°C. The difference in temperature between various parts of the premises should not exceed 5°C.
- The room should be sound insulated.
- Natural materials should be used, such as wood, bricks, and cork. No dust-collecting materials should be used.
- Strong colours covering large areas should be avoided. The paint should be washable. Moreover, special attention should be paid to the choice of colours:
  - Yellow/red gives a warm impression
  - Blue/green gives a cool sense
  - Yellow/green is a calming combination
  - Blue/red is an active combination
- The room should be situated close to the work area. This is even more important than windows.
- A toilet must be provided nearby
- In a normal work place, there should be at least one shower for every twenty workers. (Special conditions apply for dirty jobs and heavy work).
- The wishes of non-smokers to have a smoke-free environment should have priority over smokers. Smoking should be categorically prohibited in kitchens, rest rooms and sick rooms.

However, some experts believe that the importance of breaks, pauses and rest room design should be played down, and that it is the *work itself* that should be correctly scheduled and designed.

The specialist Jörgen Winkel from the Swedish National Institute of Occupational Health claims that a pause has no particular

value, other than a chance to have a cup of coffee and a chat with the work colleagues. He believes that exercises and jazzercise during pauses are of limited benefit. "For exercise to have any significant effect, you would have to perform it at least 15 minutes every hour," he says. He assigns the perceived value of exercises and pauses to the **Hawthorn effect** — a simple psychological phenomenon where any kind of attention paid to workers will result in a higher morale and greater production standards.

The Hawthorn effect was discovered in the Hawthorn factory in the United States, a dull, boring workplace. Factory management experimented by brightening the lights on the factory floor. All workers responded by working more effectively. However, some time later, when the lights were lowered to a level even darker than the original level, the workers again responded by feeling more positive and working better.

Mr Winkel believes that pauses could be used to move from one work routine to another. He advocates a concept known as *work enrichment*, and that any job should be as enriching as possible in both a physical and psychological sense.

Very monotonous work should not be performed by any single worker for more than two hours, according to Mr Winkel.

Regular pauses could even be hazardous in monotonous work, "The body signals are very vague when it comes to setting limits for boring work," he says. By having short pauses, you might simply cheat the body out of knowing when to stop.

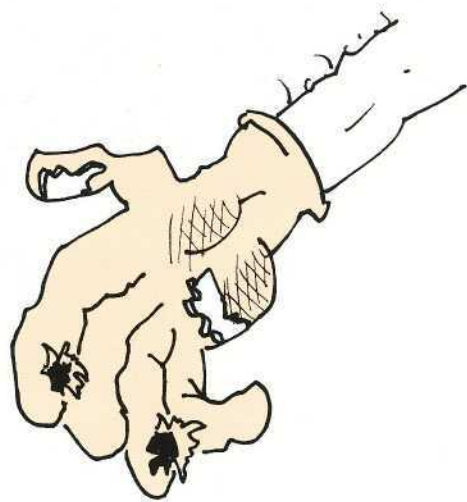
Work routines and work environment is something that cannot be *mathematised*, he says. You cannot create a happy, effective, healthy worker by placing numbers and regulations and time schedules on the work and the environment. "It should be more enriching to work than to take a break," Mr Winkel says.



Source: Carlsson, P. 1992, "Jobb ska vara roligare än rast", *Arbetsmiljö* 13, pp14-15

**Education is good  
Understanding is better!**

## Handy Hints



**If there is a chance of your gloves tearing or breaking, use protective skin cream underneath**

## Handy Hints



**If you have to take your muff off to hear, you're wearing the WRONG MUFF!**

# Cool solutions

*Cool air from above could be the solution to many tricky situations where the air is contaminated by handling large, mobile objects, such as is often the case in reinforced polyester plastics industry and other areas of manufacture.*

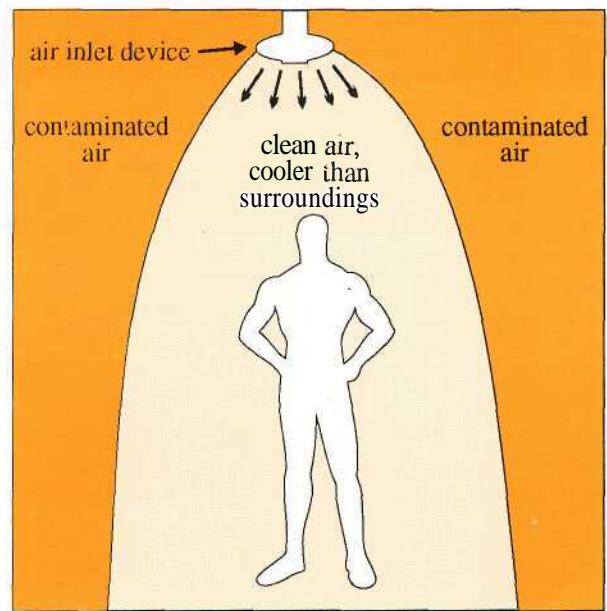
A simple point exhaust fan is often of little use in industries where large objects are moved around and prepared at various work stations. The air pollution problem is further complicated by the objects themselves are the cause of the contamination.

Take, as an illustration, the manufacture of bath tubs, spas, and other large bathroom furniture. Fibreglass is rolled and glued, tubs are polished, sprayed and coated. The manufacturing processes require turning and moving of the large objects, and it is easy to see that local exhaust may not be a feasible solution to the air pollution problem.

A new study shows that a simple set-up could provide effective displacement ventilation. The secret? Slightly chilled air from above.

Two Swedish researchers, Ing-Marie Andersson and Gunnar Rosen, together with a consulting engineer, have developed a special "low impulse air inlet device" which allows slightly cooled air to "drop" down like a mantle around the worker without mixing with surrounding air, thus creating a relatively large zone of clean air around the worker.

The researchers found that by slightly cooling the air to about 1.5 to 2 degrees below the room temperature, the air pattern from the special inlet device could be shaped to displace the contaminated air, almost like an invisible cape around the worker.



Experiments were conducted both in a laboratory and in the field. The PIMEX method was used, whereby the worker wears a real-time air sampling probe. Both the measurements from the probe and the work performed by the worker are captured on video (*formore information on the PIMEX method, see PPM vol. 7 no. 25, Dec 1992*).

By using the air inlet, the researchers could reduce the exposure of contaminants to the worker by 90-100 per cent. The ideal temperature of the inlet air was around 1.5 to 2 degrees below the ambient air.

The inlet device is a simple construction, weighing only 1.5 kilograms and measuring about 30 cm across. The air flow at the surface of the inlet was 1 m<sup>3</sup> per second, which the researchers consider to be a low figure.

**Source:** Andersson, I.-M., Rosen, G. 1993, "Takmonterat lågimpulsdon ger sänkt exponering för gasformiga luftföroreningar", *Arbete och Hälsa* no. 1993:27.

## NEW SUBSCRIBERS:

a 1 year (4 issues) — **\$30.00**

G 2 years (8 issues) — **\$50.00**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ P'code \_\_\_\_\_

Telephone: \_\_\_\_\_



**Safety Equipment Australia Pty. Ltd.**

A.C.N. 002 727 586

Postal Address: Private Bag 1001 Mond Vale NSW 2103  
Telephone: (02) 979 5077 Fax: (02) 979 5364

