

October 1997

## *Presentations on "Dermatitis" by Mike Morgan of EMAS and "Cutting Fluids" by Paul Wilkes and Gordon Owen of Land Rover.*

Mike started by saying that Occupational Dermatitis is just the same as the Dermatitis you catch in the home - only the cause is different! He added that it is one of the biggest causes of occupation health ailments with 84,000 cases p.a., with the loss of 132,000 working days at a cost of some £20M annually. But the hidden cost, he went on, was probably just as significant in terms of Loss of a job, loss of social standing, friendships, self esteem, family life and even life itself! Mike emphasised that the costs of prevention, like the old proverb, was a lot less than the cure!

Mike then showed some photographs of the unpleasant effects of Dermatitis on Hands Fingers, Eyes, Face and Chest. He said that it can look the same as other skin complaints, like psoriasis, which was not an occupational disease. There was a common myth that it is contagious, which is untrue.

Common Symptoms are **Redness, Scaling, Blistering, Cracking and Bleeding** (Both of which can increase the risk of secondary infections). There was also a real risk that the disease can be psychologically damaging because of the attached stigma and that this can lead to stress which aggravates the condition.

The costs of this disease can be seen in many ways - Losing trained workers, Training new workers, Sick Pay, Lost orders due to sickness absence and Compensation Claims. In deciding 'What to Do' to prevent any problems, the plan of action should follow the well known Hierarchy of Risk Control:-

- Eliminate
- Segregate the Work
- Enclose the Work
- Partially Enclose with Local Exhaust Ventilation
- Use Personal Protective Equipment

In addition to these measures, employers should encourage workers to adopt the highest levels of personal hygiene and to cover cuts and abrasions with waterproof plasters. Mike quoted a cautionary tale of a farm worker who conscientiously wore protective gloves. However, these were made from Latex which is itself a sensitiser, so an alternative material had to be found. Mike also sounded a caution about over reliance on Barrier Creams - "I am NOT anti-Barrier-Creams", he said, "but Liquid Gloves they ain't!". They do give limited protection and assist with cleansing, but, if used in any liquid, they will tend to be removed. He strongly recommended the use of a moisturiser after using a suitable hand cleanser, because the latter always removes the natural skin oils as

they cleanse. But make sure, he added, that you use a 'Non-Lanolin After-Wash Cream', because Lanolin is a low grade sensitiser.

Mike illustrated his comments on protection with a photograph of a worker mixing cement, whilst wearing Goggles, Helmet and Overalls. The fact that you don't often see all of these used for this activity on sites is indicative of the ignorance of the insidious risk from this common alkaline substance which harms-without-pain or obvious symptoms - until it is too late!

Mike emphasised the need to get information from various sources:-

- The Label - Read it! Particularly look for Risk Phrases  
R43 May cause sensitisation by Skin Contact  
R38 Irritating to Skin
- Data from Trades Associations
- Suppliers' Safety Data Sheets
- Your own Employees
- HSE Leaflets - INDG 136, 182, 186, 233, and EIS 14

Ensure good Two-way communications for reporting incidents/shortcomings so that early prognosis can be made better by early reports.

The important Management Steps are:-

- Find out if there's a problem
- Decide What to Do
- Do It!
- CHECK THAT IT WORKS  
Health Surveillance is essential (COSHH Regulation 11)

The essential facts for your employees to know are:-

- What Risks there are.
- What Risk Control Measures to take
- What the EARLY symptoms are.

Mike then handed over to **Graham Cheary** to introduce the next section by describing how Land Rover had developed from many sites, each with their own approach to the control of Cutting Fluids, to the present single site at Solihull in 1985. There are three large Machine Shops with over 800 machine tools with wet sumps, including 15 centralised systems feeding multiple machines. Having given us the overview, Graham then introduced **Paul Wilkes**, the resident Castrol representative on site, who described the Purchase, Use and Disposal developments operated at Solihull. The aims were to monitor the coolant and washing fluids on machines with capacities ranging from 600-22,000 litres. This entailed:-

- Data Analysis

- Stock Control
- Interaction between Works and Management
- Continuous Improvement
- Recording Benefits

The Fluid Monitoring System needed a record of every machine on a data base to indicate present practices and a label on each machine to show the coolant product name, the Capacity and the Area. The eventual system had to be flexible enough to cope with changes in production levels. Concentration levels were monitored according to machine size and measurements were done weekly by a Refractometer. Levels of pH, Emulsion strength, biocide levels and Bacteria Counts were monitored on large systems.

In the washing Plant, the wash solution was subject to a weekly regime of fluid testing and component cleanliness monitoring. Machine capability was charted to monitor Pump pressure, blocked jets, wash concentration and pH, Total Solids (mg/l) and Cleanliness level.

Disposal data showed a reduction from 250,000 litres waste in 1991 to 25,000 litres in 1994, due mainly to recycling of fluids and more effective use. At the same time, the Tool Monitoring system showed a 34% saving in costs due to the maintenance of correct coolant strengths.

On the Health front there is now a formal procedure for monitoring skin complaints and the number of skin complaint investigations fell from 8 in 1991 to 3 in 1996.

With regard to Communications, Castrol were involved in:-

- Monthly meetings to air problems
- Attendance at Health and Safety meetings
- Liaison with Quality Action Teams and Discussion Groups
- Product presentations

The Continuous Improvements programme comprised replacing neat oils with synthetics, elimination of Chlorine and increase in the proportion of in-house recycling. The benefits included Less Down Time, better environment, improved machine cleaning and a full inventory of plant on site.

**Gordon Owen**, also of Castrol, then brought this section to an end by showing us some of the equipment used in the programme:-

- **Retriever Unit** - Used to recycle fluids at each machine, or transport it to the Central Plant.
- **Top-up Trolley** - complete with Spillage Kit

- **Castrol Economiser** - with paper and centrifuge filters. Saves cost of the product and water solvent.
- **Fork Lift Truck** - modified for oil handling and fitted with oil spillage kit bags.

**Mike Hoare**, of Birmingham University, referred back to the previous mention of Latex and remarked how important it was to select the right gloves for the job. He was concerned about fouling that could occur inside gloves. Mike Morgan responded by saying that it was vital to check gloves frequently to ensure continued serviceability.

**Terry Billington** asked what happened to the waste at Land Rover. Gordon Owen replied that it was treated on site and that a future project was to develop the re-use of oil.

**Mike Wilkinson** then asked how it was possible to prove that a complaint was work related. Mike Morgan said that the F2508A report triggered off most enquiries but that GP diagnoses were not reliable. In support of that verdict, he quoted the case of an apprentice whose GP said he was allergic to oils in the workplace and, as a result, he was due to lose his job. After referral by EMAS to a dermatologist, it was found that his ailment was not occupational related and he was able to keep working. He added that you cannot recognise occupational causes just by visual examination, it must be done by patch testing, with readings after three days and then again after seven days. Negative results are just as useful as positive outcomes and can give 2 or 3 indications of causation.

**David Hughes** quoted a personal experience involving his brother-in-law who had served 30 years in the Fleet Air Arm. His severe symptoms were thought to be occupational until he was examined in the Dermatology department of the Staffordshire Hospital and he was found to be allergic to lanolin. After treatment he was completely cured.

At the end of question time John Humpherson thanked the speakers for their very informative presentations and the members responded in the traditional manner. The video 'Rash Decisions' was shown as members took refreshments.