

## 'BACK TO BASICS'

**In the second of a 'Back to Basics' series, Martin Williamson of independent oil analysis and machinery lubrication training and consultancy firm Noria UK, looks at the issues of properly storing lubricants....**

### Designing the Optimum Lubricant Storeroom

#### Are you Guilty?

In the first article, the issue of Best Practice Lubrication Management was discussed within the context of Proactive Maintenance. The philosophy was that the root cause must be addressed in respect of failure avoidance. It makes sense that in a programme designed to minimise the risk of error and to avoid the ingress of contamination, the improvements must begin at the beginning.

Therefore, it is fair to say that an oil storage room should be brought up to a high standard - not lacking in anything. In my experience, most oil stores are often located in some dark and unused area of the plant that nobody else wants. Why aren't they treated as the crucial hub to production?

If improving your oil store is not on your list of priorities, then it should be. Whether you are a low-volume lubricant user, or a large plant, this article is intended as a guide to setting up an efficient and well-organized oil store. It addresses many of the minor issues often overlooked, which as a whole, form an important and crucial part of a good lubricant store.

When drawing up plans to upgrade the oil store, it is important to consider the amount of space needed, the furniture and work benches, provision for storage, lighting, power and ventilation, and above all, to ensure the ergonomics of it all. Making the work area and procedures as simple and as painless as possible will encourage ownership and enthusiasm in the store, and ensure proper lubrication. Because several people may be involved in the storeroom, consistency in the procedures and housekeeping is critical to good management.



Figure 1

Each member of staff with authorised access to the storeroom is essential to the overall success of the storeroom's design. Therefore, it is imperative that the work area is laid out properly, and to avoid unwittingly contaminating stock, that good housekeeping is practiced at all times. The storeroom will be a showcase, the hub of an efficient operation if successful, and should look presentable at all times. Visitors and colleagues should feel proud of their work area.

#### Do You Need an Oil Store?

Whether you run a small automotive workshop or a large power station or open cast mine, an adequate storage area for lubricants, lubrication equipment and supplies is necessary. For some, this may simply be an appropriate cabinet or locker (Figure 1); whereas for others, it may be bulk storage in Intermediate Bulk Containers (IBCs - Figure 2) or it may be pumped dispensing systems. What is common to all three is the need to ensure the basics of avoiding outdoor storage, providing adequate racking for the containers, providing suitable handling and dispensing systems, as well as disposal arrangements. More important is the need to comply with

Health and Safety regulations and ensure that all members of the staff are trained in fire-fighting and spillage procedures; no organisation wants the stigma of a disaster on its track record.

#### Addressing Health, Safety and Environmental Issues

The work area is critical to the smooth operation of the service. The comfort of the lubrication technician is important because of the somewhat hazardous nature of the store and the job. In addition the technician will need to complete paper work and will perhaps have a terminal for work orders etc., so this is an additional ergonomic consideration. Giving ownership to the

employee who will have ownership of the store will help develop interest in the job at hand. This may involve the individual in playing an active role in the design and functionality of the area. Apart from the comfort of the lubrication technician, it is also important that the storeroom is maintained at a constant room temperature with adequate ventilation. Ventilation is important to avoid the build-up of potentially hazardous fumes that pose a fire and health risk. Ensuring maximum shelf life of the lubricants is just as important, and constant temp will help. The store should be dry to avoid contaminating the oil with the ingress of moisture. It is worth requesting a Materials Safety Data Sheet for each lubricant to keep in the storeroom for quick reference, and more importantly, for the lubrication technician to check before handling the lubricant.



Figure 2

Obviously, warning signs are necessary to communicate the danger of the fluids in these containers; and smoking and eating should be prohibited in this area. Currently, work by an ISO working group will improve the colour-coded labelling of lubricants, providing a more consistent and global quick reference system. Fire extinguishers should be available, although the type of lubricants stored will dictate exactly what form is required. As mentioned earlier, all staff should receive appropriate training in the correct handling of these units. A first-aid kit and eye wash solution should be kept on hand, and staff should be trained on their use. If possible, a small sink with both hot and cold water should be available, along with quality hand soap. In addition to the company policy on hard hats and safety shoes, safety glasses, eye wash and safety gloves should be available for use at all

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(Continued on Page 11)