

## PETROCHEM NEWSLETTER

# MAINTENANCE ENGINEER CHALLENGES



Many challenges face the maintenance department of bakers and snack producers due to increased production hours and less downtime.



This means more utilization of the ovens and equipment. In addition, temperatures and speeds of the oven chains have been increased over the years to produce more output faster. This puts more demand on the lubricants that lubricates the chains. One critical decision faced by maintenance is selecting the correct lubricant to apply onto the chains that promote safety in the workforce and proper lubrication 24/7. Most graphite lubricants are hazardous and require turning off the ovens to manually lubricate the chains. Whereas, high performance synthetic lubricants are environmentally friendly and allow the chain to be lubricated at all times without stopping production.

Petrochem, Inc. works closely with OEM's in the development of automated lubrication systems and specifications of high performance synthetic ester based lubricants. These advances in lubrication technology allow proper lubrication by delivering the proper amount of oil, where and when it is required. In addition it promotes cleaner, longer lasting chains, reduces lubricant consumption and provides energy savings.

One of the most critical sanitation issues to address during the lubrication process is to ensure the lubricant does not come in contact with the food.

Maintenance Engineering needs to determine if there is a chance the lubricant may or may not come in contact with the food. Lubricants used in food processing plants have either an H-2 or H-1 NSF registration.

The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements including FDA 21 CFR for appropriate use, ingredient and labeling.

1. Products labeled NSF (H2) are acceptable as a lubricant where there is no possibility of food contact in and around food processing areas. Such compounds may be used as lubricants, release agents, or antirust films on equipment and machine parts in locations in which there is no possibility of the lubricant or lubricated part contacting edible products.
2. Products labeled NSF (H1) are acceptable as a lubricant with incidental food contact for use in and around food processing areas. Such compounds may be used on food processing equipment as a protective anti-rust film, as a release agent on gaskets or seals of tank closures, and as a lubricant for machine parts and equipment in locations in which there is a potential exposure of the lubricated part to food.



Customers save a lot of money by applying Petrochem's OEM approved, high performance lubricants by applying it through precise automated lubrication systems. The precise lubrication technology significantly decreases the amperage to run the chains, extends the life of the chain, minimizes frequent chain cleaning and also eliminates the possibility of food contamination.

One common mistakes made by maintenance engineers is not applying enough lubricant on to the oven chains which contributes to significant metal wear and increases the oven's amperage that puts tensions on the pull of the chain. Another mistake is maintenance may be using an incorrect lubricant, which leads to problems such as carbon, build up, wear, smoke and flash fires. Using the proper lubricant would significantly extend the life of the chains and decrease energy consumption. Maintenance engineering needs to make it their responsibility to be educated about the best lubricants and lubrication systems to use in order to protect their equipment and increase production.

**Petrochem offers a solution that eliminates the risk of food contamination in bakery ovens.**

Petrochem's FOODSAFE PETRO-GARD FG-220 220 is a Food Grade, High Temperature Ester Based Oven Chain Lubricant that complies with the Food Safety Modernization Act (FSMA) law and is NSF H-1 registered. NSF H-1 documentation is generally requested during a USDA/ FDA inspection or audit.

1. **FOODSAFE PETRO-GARD 220** is the ultimate NSF (H-1) FOOD GRADE, High Temperature oven chain lubricant with virtually no carbon formation, excellent wear properties and extended lubrication cycles. This product is also OEM APPROVED.

2. **FOODSAFE PETRO-GARD 220** keeps the chains very clean and eliminates the risk of food contamination by using a NSF H-1 High Temperature Food Grade Oven Chain Lubricant



**100% Satisfaction Guaranteed or Complete Refund**

In summary, Maintenance Engineering time is valuable and should not be wasted doing tedious tasks that can be minimized by preventative maintenance practices. If proper lubrication technology is in place, issues of food contamination, energy consumption and labor cost will be reduced. Instead of spending countless hours manually lubricating chains, cleaning chains, removing or installing new chains, maintenance can dedicate their time to other valuable engineering duties.

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**High Performance Lubricants**

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