

## Non Ferrous – Aluminum: Cleaned Stubborn Residue From Mill Floor

QUAKER FORMULA® 126 FS

### The Challenge

An aluminum coil stock manufacturer needed a surface cleaner to remove heavy soil buildup from its concrete floors with the use of floor scrubbing equipment. Particularly near the hot mill, cold mill, and sheet finishing areas, the mill floor had an accumulation of hot rolling emulsion, oils, greases, and other additives that was spread around and mixed with outdoor dirt due to fork trucks traveling throughout the plant. These conditions resulted in a putty-like soil on the floor that was difficult to remove.

They were spending a significant amount of money on various industrial cleaners, but none were able to completely clean the floors. The floor scrubber only smeared the buildup which caused movement issues for the mobile equipment throughout the plant.

The aluminum company was looking to find a cleaner that can:

- Be compatible with their floor scrubber equipment
- Penetrate and eliminate the residues on the concrete floors
- Meet the health and safety requirement for potential employee exposure as well as be treatable in the plant's waste water treatment facility
- Perform without creating slippery floors
- Be cost effective

### The Solution

As a first step, Quaker Houghton analyzed the putty-like buildup to determine its composition and determined that hot rolling emulsion components were the "glue" holding residue together.

QUAKER FORMULA®126 FS was developed as a floor cleaner concentrate with materials that targeted the breakdown of the residue structure. It could be diluted onsite and used in the floor scrubber.

Trials were performed against the competitive floor cleaner with positive results. QUAKER FORMULA® 126 FS was able to dissolve the residue so that it can be picked up by the floor scrubber. In comparison, the competitive cleaner tended to move the residue around the floor, but not break it down.

### The Benefits

Incorporating QUAKER FORMULA® 126 FS resulted in:

- Effective performance that no other cleaning product could match
- Penetration and reduction in floor soil buildup
- At least a 50% improvement on removing the sludge from the concrete floor
- Non-slip surfaces after cleaning
- Approximately 20% cost savings for comparable consumption to the competitive product

### The Product

QUAKER FORMULA® 126 FS is a water based maintenance cleaner formulated for superior cleaning with worker compatibility. The unique formulation contains hardworking surfactants to cut through oil, grease, and dirt on floors, walls, and shop machinery. It was specifically designed to break down the difficult soils found in mills rolling aluminum and other metals. QUAKER FORMULA® 126 FS has a mild scent and low alkaline pH which makes it safer and less irritating than other caustic or butyl-based cleaners. QUAKER FORMULA® 126 FS is compatible with most mill waste water treatment systems.



## Process and Equipment

Cleaning Equipment – Tennet M30 Scrubber

**Competitive Cleaner, 5% concentration**



**Before**



**After**

**QUAKER FORMULA® 126 FS, 5%v/v concentration**



**Before**



**After**

