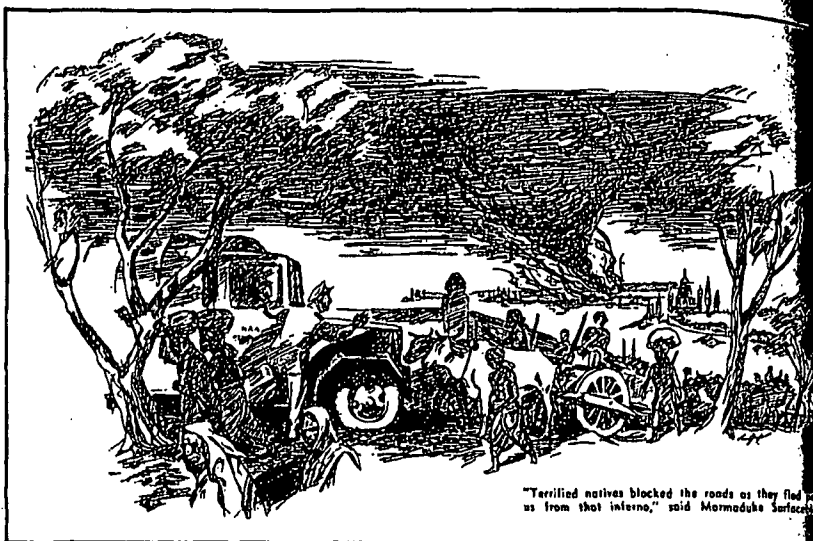




"Terrified natives blocked the roads as they fled us from that inferno," said Marmaduke Surface.

The Skipper Wouldn't Scuttle

► THE OTHER DAY we ran into an engineer who complained that some of his department heads are too lax in giving orders. His squawk was that an otherwise capable chief engineer, for example, is a "good Joe" to the extent that he lets his men get by with murder.

"Maybe old Marmaduke Surfaceblow has a few thoughts on this subject," I promised when my friend got through crying in his beer. And next day I found myself climbing the creaky stairs to the old consulting engineer's office, above O'Houlihan's Machine Shop & Engine Works down near the water front.

The old boy was hard at work, jotting down sketches in a notebook. I cleared my throat as I walked through the open door.

"I'm told that some people just can't give orders and make them stick," I began quietly. "They don't seem to have what we in the Navy used to call that 'officer-like' quality."

"BLGCEWATER ON GIVING ORDERS," roared Marmaduke, putting down his fountain pen and leaning back in his swivel chair. "Any jackass can give orders, but it takes a mighty smart engineer to TAKE orders."

Before I could open my trap, Marmy heaved his size 16 canal boots up on his roll-top desk, lit the short rope yarn sticking out of his face, shoved his old gray bowler to one side—then blasted away in his foghorn voice.

"During the war, in 1944, I signed on the freighter SS *City of London* as chief engineer. She was registered out of Vancouver, British Columbia. We loaded a cargo of high explosives, then shoved off for the Far East.

"It was one bright Sunday morning in April when we pulled into Bombay, India. That port was swarming with British and Canadian merchant supply vessels and navy ships. And as luck would have it, we tied up right next to HMS *Sussex*. It turned out that my old shipmate, Paul Hobson of Ottawa, was aboard her. After exchanging visits, the two of us got hold of an army truck. Hobson needed spare parts so we drove to a repair base a few miles from the city. While out there we dropped into the British Officers' Club along the way for some English ale.

"We no sooner quenched our thirst than all hell broke loose. It started when a Canadian 'Fort' ship opened up

her hatches to unload cotton. A Fort is the same as our Liberty ship but it is riveted instead of welded. She had about 1000 tons of explosives in her hold. When the longshoremen started unloading the cotton, they discovered fire in an adjoining hold.

"The ship's officers reported the fire to shore authorities, according to regulation. They came aboard and made a quick inspection. Trouble was in the ammunition hold because they found the bulkheads storing the explosives kind of hot. So the port authorities ordered the skipper to take his ship out to sea at once and scuttle her. But the skipper couldn't take orders. He was only good at giving them. 'I'm master and no tin-horn official is going to tell me to scuttle my vessel,' he roared, growing purple around the gills.

"While the skipper argued with the gold braid from ashore, 35 very brave natives from the local water-front fire department descended into her hold to put out that fire. But a half hour later there was one blinding flash and a deafening roar. That was the end of the ship—explosives, crew and all.

(Continued on page 200)

TROUBLE

ISLAND

Here is of a condenser-tube scale sample, about eight inches long. Solid scale is approximately 1/4-inch thick, with "spires" ranging up to 1/4-inch height.

FIFTEEN years ago, this small island of trouble was part of a much larger open-box condenser problem at a refinery. Cooling water, running over 200°F. at outlet, contained 30 grains per gallon hardness and 20 parts per million iron. Tubes scaled heavily and rapidly without chemical inhibitor. Even with the best inhibitor then known, results were as illustrated above: partial inhibiting action creating the "spires" or forest-like deposits on tubes.

Considering this a challenge, Nalco sent a Doctor of Physical Chemistry—an expert water technologist—to the refinery. His weeks of work on the spot led to basically different treatment with new chemicals which cleaned up the condenser and kept it clean. Further Nalco research and development of chemical inhibitors has since enabled cooling systems to operate without scale or corrosion with water hardnesses as high as 200 grains per gallon.

Point is this: neither Nalco nor anyone else had an answer to scaling in that condenser. Nalco put the necessary brains to practical use and got results... benefiting, in the long run, not only that particular refinery, but every user of cooling water.

Whether your water treatment problem is unique, or stubborn plant-run, you will get prompt, decisive action from Nalco in the direction of positive results. Write or telephone today.

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