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# RUSTY HERSIG

## Rusty helps save the planet

Rob Swanekamp, PE

**Y**ou don't know SQUAT about Rusty Hersig, if you don't know about about the time he took over that cogen plant in New York City. The town that calls its sports heroes "Yankees" was the last place the proud Mississippian wanted to work. But in the wake of Three Mile Island, jobs for nuclear-plant engineers were scarce. So, when he heard about a burgeoning cogeneration industry needing steam experts, Rusty asked his kinfolk to forgive him for moving to the wrong side of the Mason Dixon line; then he closed his eyes and jumped in with both feet.

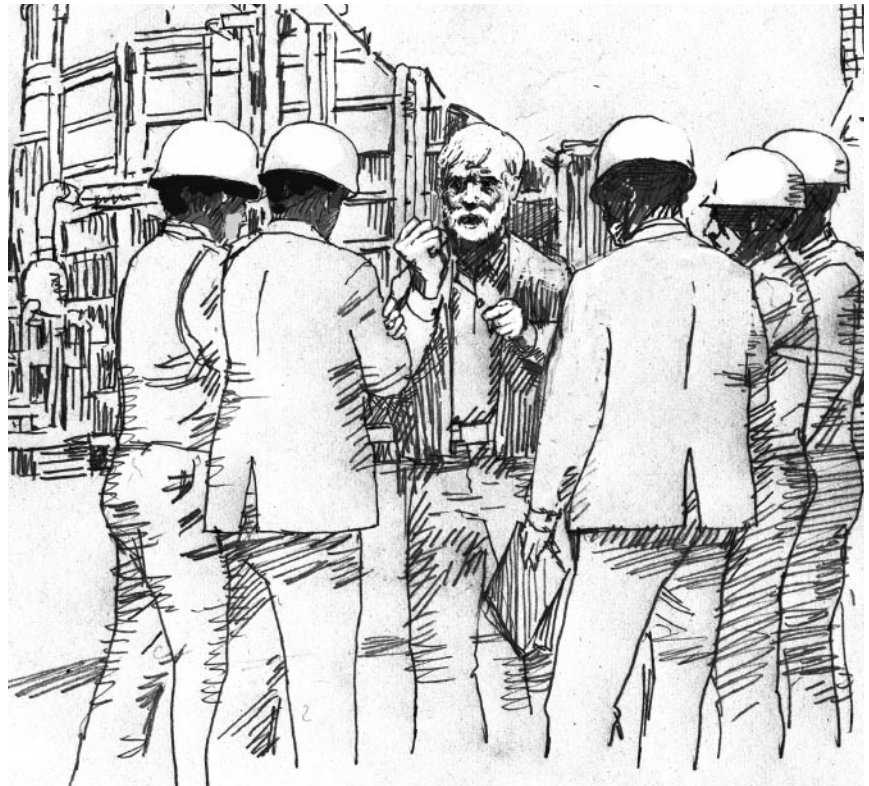
Now, Dear Reader, go fetch yourself a fresh cup of coffee so's I can tell you the rest of this story. . . . I mean it! Take that ol' wore-out mug of yours to the break room right now and come back with some concentrated caffeine. . . . Are you back? Okay. It happened this a-way:

**I was on my first shore tour,** assigned to a NAVSEA office near the Pentagon. My team was working to optimize maintenance of the navy's new fleet of gas turbines and we figured cogen plants could give us some good ideas. And who better to learn from, than the industry's legendary troubleshooter? So one morning I hopped the train from DC to New York's Penn Station, and hailed a cab for a ride cross town.

By the time I got to his office, Rusty's blood was already running hot. "Like ta' boiled over!" as Rusty would say in that Southern twang of his. He had the entire operations crew braced up against the wall.

The whole lot of them. And a rough-looking lot it was! I figured them for local hires, straight off the Bronx Bleachers. A mixture of dirt and sweat and lube oil seemed permanently etched into their skinned knuckles and creased faces. I reckoned that they'd give the Southern outsider a less-than-warm welcome.

But Rusty wasn't trying to win them over by singing "I Love New York." In fact, he was chewin' them



**The operations supervisor** shouted, "But, yo, Boss, that truck's only a couple blocks away! It'll be at the gate in no time! Why can't we just keep the turbines up a little longer, like Mr Flowe let us do before?" Rusty shot back, in a tone as fixed as cast iron, "Why?! Ah'll tell you why! First off, Ah ain't a-willin' to trade jail time, fer up-time! Second, whatever 'dat pilgrim said don't amount to shucks no more! T'other thing y'all need ta know is that Ah am a real environmentalist!"

out something powerful—over something that must've happened on the previous mid-watch. Weeks later, Rusty would confide that he hadn't intended to be harsh in his very first meeting with all the operators, but that he needed to make his policies crystal clear right from the start of his generalship. "Right from the get-go," he said.

The meeting reached a crescendo when the operations supervisor shouted, "But, yo, Boss, that truck's only a couple blocks away! It'll be at the gate in no time! Why can't we just keep the turbines up a little longer, like Mr Flowe let us do before?"

Rusty shot back, in a tone as cer-

tain as a brass bell, "Why?! Ah'll tell you why! First off, Ah ain't a-willin' to trade jail time fer up-time! Second, whatever Cash told you in the past, don't 'mount to shucks no more! T'other thing y'all need ta know is that Ah am a real environmentalist!"

I noticed the operations supervisor roll his eyes and sneer fiercely at that last word. He was a grizzle-faced, ornery ol' cuss who had worked at that plant since its foundations were poured. And he'd been seething for weeks, ever since he learned that he was not being promoted to the plant manager position.

Now, he had just heard that the

guy who got the job was not only an outsider, but an environmentalist to boot! Because his attitude toward environmentalists was just shy of outright contempt, he wondered what the corporate folks could possibly have been smoking when they picked one of them to manage HIS plant. Rusty also noticed the supe's reaction, so to further drive home his point, and perhaps to jerk the guy's chain, he added, "That's, right, buster, your new plant manager gives a hoot and won't pollute!"

At that platitude, the sneer on the ops supervisor's face turned to unveiled, full-fledged hostility. Now, Rusty looked more serious, as he continued, "But Ah can assure you, that Ah am NOT an environmentalist in the Hollywood sense of the word. Ah am not the tofu-eating, anti-everything, organic-foody type that cares about the environment, but only enough to TALK about it—not enough to actually DO anything."

At that, the ops supe looked relieved. "Whew!" he said, "for a minute there I thought you were a loony lefty, like my brother-in-law. He's one of them Hollywood environmentalists you're talking about. I can't even spend the holidays at his house, anymore, 'cause his opinions have gone so far off the deep end. He believes EVERY kooky conspiracy theory he hears. Even makes up some of his own!"

"Like, the other day he told me that America's obesity problem is caused by the hole in the ozone layer letting in too much gravity! And he believes that a major car manufacturer has proof, but is hiding it from the public so it can keep selling SUVs."

Rusty chuckled, "Letting in gravity, huh? Does he know some theoretical physics that the rest of us don't? I mean, is that like a quantum theory of gravity, or something?"

"Nope," the ops supe chuckled back. This guy was a journalism major."

"No suh!" Rusty bellowed, "that ain't a-me! Ah am an environmentalist in the truest, most real sense of the word! See, Ah know that our environment's been improved by powerplants that burn clean and I work hard to keep 'em that a-way! So, from now on, you will NEVER operate this plant if the emission controls ain't a-runnin' perfectly! Y'all got that?"

Rusty waited 'till he got a "yes, sir"

## HRSG User's Group to meet in Jacksonville, April 6-8

When Rusty Hersig jumped to the combined-cycle/cogen sector of the electric-power industry, he didn't stick only to his paying job. Instead, he got deeply involved in the industry's professional organizations.

Chief among them: The HRSG (heat-recovery steam generator) User's Group. For over 16 years, Rusty's attended the group's annual conference, and no doubt will be at this year's event as well. The conference, slated for April 6-8, 2009, at the Hyatt Regency Riverfront in Jacksonville, is well-known for its three days of insightful, user-driven discussions. Details are available at [www.hrsgusers.org](http://www.hrsgusers.org).

This year, there's also a special, pre-conference seminar, "Supervising Your Outage Contractors." According to Chairman Bob Anderson, it will help users optimize their plant outages. Seminar topics include:

- Lockout/tagout procedures.
- Nondestructive examination.
- Code-compliant welding.
- Supervision of P91 repairs.
- Attemperator inspection and upgrade.
- Severe-service valve overhaul.
- Safety-valve servicing.
- Switchgear maintenance.
- Shaft alignment and vibration analysis.

from every single person in the room, then he smiled and concluded the meeting. "Twahl, Ah reckon that's enough yakkin' from me," he said, "now, y'all get back to work. Whoever's on watch, go execute a normal shutdown." One operator spoke up, "You mean immediately, Boss?" "If not sooner," Rusty replied with a grin. As everybody filed out of that room, it felt as good as church letting out.

Later, during the lunch break, Rusty sat down again with the ops crew, and told them more about his background. He was a young engineer in the 1960s, he explained, back when powerplants spewed largely uncontrolled emissions from their stacks, contributing to a serious air pollution problem. Since then, however, laws had been sharply tightened and the industry had made countless improvements that dramatically cut emissions from our boilers, gas turbines, and recip engines.

By the time of that meeting, US air quality was the cleanest it had been in decades, and was getting cleaner—a trend that continues to this day. Although this fact had been, and still is, largely ignored by environmental groups and much of the mass media, Rusty knew it and

was proud of his role in the cleanup.

In this, his first managerial assignment, he told the crew, he wasn't going to stand for a reversal of that progress. Because the laws include jail time for managers who violate emissions limits, he also wasn't going to stand for a potential prison sentence. What I eventually figured out was that the cogen plant had run out of ammonia for its selective catalytic reduction (SCR) system.

The same thing had happened years before, and that time, Rusty's predecessor—a guy named Cash Flowe, who was one of the first Wall Street whiz kids jumping into the private-power industry—had ordered the operators to keep the plant running, on the grounds that the ammonia delivery was only a few minutes away so "nobody would notice." Rusty explained, "That was back in the day, before a CEMS [continuous emissions monitoring system] was required at every powerplant."

He stared out the window for a few minutes, looking philosophical, then continued, "Come to think of it, that kind of behavior by Cash just might be WHY the gov'ment forced us to add them dadburn things!" He thought about that some more, and must have concluded that he was right, because he nodded his head and spliced on, "Yep," Cash should o'done more thinkin' on that one 'cause operatin' a powerplant in excess of emissions limits—even for a few minutes—is 'bout the stupidest thing a body can do!"

The conversation in the break room then wandered back to overzealous environmentalists, and everybody took a turn giving examples of silly environmental myths perpetrated by the media, and of the gullible people they personally knew—the ones who fell for every green-washed story reported on TV.

"I went to a neighborhood meeting on a proposed hydroelectric project, one operator said, "and this nature boy stood up to say he was opposed because—and I quote—'the fish wouldn't be able to survive if we extract all the electricity from the water!' Yeah, he actually believed there's voltage naturally occurring in the river water, and that the fish need it to live! I tried to tell him about hydro turbines converting potential energy into mechanical energy, and stuff like that, but I was just wasting

my breath . . . the guy had as much common sense as my kindergartener. I swear, he was at least half a bubble off plumb!"

"My seventh-grader's teacher takes the cake," another operator chimed in. "She asked me one time where we were hiding all the missing electricity. When I said, 'huh?' she said she learned that utilities generate power at 15,000 volts, but that her house was getting only 110 volts, so she concluded that we must be hiding all the rest of that juice! I tried to explain the concepts of power, voltage, and transformers . . . stuff like that . . . but that was a waste of my breath, too. She told me she was a credentialed teacher, and therefore didn't need to learn anything else.

The ops supe summed it up, "I don't expect EVERY member of the public to be a mechanical genius, but if these people are gonna' thrust themselves into energy and environmental issues, they oughtta' at least learn some fundamentals. I mean, most of them wouldn't know their lug nuts from their dipstick!"

**With each anecdote**, the laughter in the break room grew, until Rusty 'bout split a gut. After he downed his last gulp of coffee, Rusty gave his chin a satisfying wipe, then reached into his briefcase and pulled out a poem he'd written months before—a parody of one he'd had to memorize in grade school, which he'd turned into a satire of alarmist environmental types. Handing it to the ops supe, he said, "This here's what Ah think o' them greenie whack-jobs who believe every dark n' gloomy forecast that comes along."

An involuntary grin slowly grew across the ops supe's face as he read it:

**The Song of High Awatha**

*On the shores of Dark and Gloomy,  
Of the shining Big-Sea-Water,  
Stood Awatha, the old hippie,  
Who didn't know what to do,  
Should he hang on to the old?  
Should he finally learn something new?  
Still wearin' his tie-dye,  
And smokin' his dope  
To every proposed powerplant, he  
simply says "nope"  
No matter its benefits, no matter how  
clean,  
Awatha doth protest  
To convince himself  
That he's noble and green.*

Then, with a new look of acceptance, he reached out his big right paw for a handshake, and said, "Welcome aboard, Skipper."

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June 8-11, 2009

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for more information as it becomes available

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