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FROM THE EDITOR

We were finally finishing up the 2009 OUTAGE HANDBOOK when more ugly news about the global financial mess surfaced. Economists from Goldman Sachs, one of the companies that helped to perpetrate the myth of endless money, estimated that financial institutions and investors worldwide would ultimately realize \$2 trillion in losses on US loans—as reported in *The Wall Street Journal*.

That was double the loss expected only a couple of weeks earlier. Mind-boggling; the financial community's inept leadership now was speaking of trillions as if they were peanuts. The 20-yr-old Merriam-Webster® dictionary in our office defines "trillion" as "a very large number." It certainly is. To better define the word, we offer the following: a "one" followed by 12 zeros; 1000 billion; 1,000,000 million.

A couple of arithmetic exercises reveal that a trillion one-dollar bills connected end to end would wrap around the equator more than 4000 times. Put those same bills on a scale and they'd weigh more than 1.1 million tons. How is it possible to "lose" that much of anything?

We had just refocused ourselves on the task at hand—producing a magazine—having come to grips with the idea of working "forever," when a news flash reported that USAir 1549 had lost its engines after hitting a flock of birds and ditched in the Hudson River. Thoughts of "what's going to happen next" raced through our minds.

But there was good news at the end of the day regarding this accident. A competent pilot with nerves of steel, Chesley Sullenberger, had landed his jet on the water and safely delivered all 155 frozen passengers and crew to teams of very capable rescuers. The takeaway: Thorough training, regular drills, a safety mindset, unflinching confidence in your abilities, and leadership are critical to success—in the air, on the sea, and in the powerplant.

While birds are a highly unlikely threat to the integrity of land-based gas turbines, design margins of the latest engines for power-generation service are much tighter than they were for GTs built only 15 or 20 years ago. The challenging goals of maximum power, maximum efficiency, minimum emissions, high starting reliability, and high availability demand a level of operator skill that only can be achieved with sophisticated tools and rigorous program of training and periodic requalification.

The article on p 112 shows the benefit of high-fidelity simulators in this regard. Bill Kessler, operations manager for ConEd's East River Station, and his colleagues breezed through commissioning in early spring 2005 with a well-trained staff that has run two 7FAs for more than 28,000 fired hours each without a trip attributable to control-room operator error.

Powerful HiFi simulators will become the rule, rather than the exception, at new plants—and some existing ones as well. New predictive analysis tools also will be relied upon to prevent unnecessary damage to critical components, thereby mitigating financial risk. Systems for monitoring and responding to combustion dynamics are part of this trend (see article, p 89). You will have an opportunity to see these and other such tools first-hand at your preferred user-group's vendor fair this spring. Be sure to document for management the value of attendance.

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