

Quake Turns Just-in-Time to Just-in-Case



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Tremors from the strong Japanese earthquake continue to rattle businesses everywhere, even companies that have experienced no disruptions in parts or supplies. Businesses in many industries are trying to adapt to a new reality. No longer can they count on reliable access to critical supplies, a fact prompting frantic phone calls, contingency planning and product redesigns.

For instance, film and television producers, along with the companies that support them, are scrambling to stock up on commercial-grade videotape. A major supplier, Sony, closed its factories in Japan. Many studios say they face no shortage now, but there is a fear of a shortage, and that is all it takes to put companies on edge.

"Folks everywhere know there will be a shortage and are buying as much as they can," said Thomas Engdahl, chief executive of Advanced Digital Services, which archives Hollywood shows and is among the many companies frantically calling videotape distributors. "It's creating panic buying."

Short of parts, many automakers have slowed or stopped production at some plants. Other manufacturers—such as Nokia, the Finnish cell-phone maker—have said they expect disruptions. But even companies that have maintained relatively normal operations have needed to hustle.

In San Jose, CA, just hours after the earthquake, employees of Echelon, which sells smart meters that monitor electricity consumption, held an emergency meeting to discuss the potential effect on their supply chain. Identifying every supplier from Japan was the top priority, said Russell Harris, Echelon's senior vice president for operations.

Echelon and the contractor that builds its smart meters quickly came up with a list of 25 suppliers responsible for more than 50 components. Within a few days, they had contacted each one and found, to their relief, that none of those factories had been damaged. "We got lucky," Mr. Harris said.

But that's no guarantee the luck will hold. Suppliers depend on basic materials to keep their factories running, and any disruption to that spigot—a particular chemical or tiny part that has become scarce—could shut down the entire chain.

Production delays would be painful for Echelon. Contracts with utilities often require it to pay financial penalties for late deliveries. Because of the high stakes, Echelon had never embraced the strategy of just-in-time manufacturing, in which companies keep a small amount of inventory on hand. Rather, Echelon usually keeps a few months of supplies, at least for components that are available from only one source.

The approach, which had lost favor among speakers at management conferences and authors of business books, turned out to be a blessing after the earthquake, Mr. Harris said. Still, he got approval to buy even more components on the spot market to tide the company over through the summer.

Meanwhile, Echelon started a search for alternative suppliers outside of Japan, just in case. For some components—such as microcontrollers, which are tiny microchip-like devices—there are no other options, Mr. Harris said.

For now, Echelon's production is normal, as it tells customers who have been calling. But there remain many unknowns—how quickly Japan's factories will come back online, when transportation will be restored or when the danger of nuclear contamination will pass—that could still affect the supply chain. "The particular impact from this disaster is still unfolding," Mr. Harris said.

Several companies that make circuit boards—the electronic nerve centers inside computers—are also in upheaval. The earthquake caused a huge part of Japan's semiconductor industry to close along with the factories that make a quarter of the world's silicon wafers, the raw material used in semiconductors, according to IHS iSuppli, a market research firm.

Typically, manufacturers or distributors have stockpiled enough semiconductors and most other computer parts to feed production for several months. But to be safe, circuit-board makers are starting to redesign their products so they can more easily switch components if there is a shortage, said Paul J. Reilly, an executive vice president at Arrow Electronics, a technology supply chain company based in Melville, NY.

"While a replacement part may function similarly, it may not have the same shape. You may not be able to squeeze it on the same computer board," Mr. Reilly said, adding that computer board makers may never put the redesigns into production. But money spent coming up with new designs is minor compared with the potential cost of stopping the assembly line. "Everyone is looking at their contingency plans."

In Hollywood, whether there is a shortage of commercial-grade videotape for television and movies or simply a lot of hoarding is unclear. Filming has not been disrupted. But Sony produced several formats of videotape used by Hollywood, primarily from its Sendai plant, which was closed because of damage after the quake.

Word of the plant's problems immediately drew attention in the entertainment industry because Sony represents a big part of the market for commercial-grade videotape. Supplies of one commonly used format, HDCAM-SR, are particularly vulnerable because Sony is the only manufacturer.

Buyers quickly tried to scoop up as much as possible for fear the tape would be unavailable in the future. Fuji, Maxell and other companies also make videotape. But if a crew is forced to switch formats, it may need to buy new equipment or forgo some capabilities.

David Cohen, chief executive of Edgewise Media, which sells film equipment to production companies involved in shooting reality shows, among others, said he had scoured the world for stock since the earthquake. To cover the extra shipping costs and markups by suppliers, he has raised prices as much as 25%.

"We're buying as much as we can—buying at a premium to take care of our customers," said Mr. Cohen, whose company is based in Orange, CA. "I can't have someone starting a show knowing that they are going to have to stop after six or seven episodes."

Sales are limited to his regular customers, and then only for the short term, he said. People planning to resell the tape at a higher price would otherwise buy out everything he has. "We don't want people buying tape from us and sticking it on eBay and charging 10 times more for it," Mr. Cohen said.

Mr. Engdahl, from the Hollywood archiving and postproduction company, proposed to his customers they switch to digital archiving instead of storing their shows on tape. After the panic dies down, he said, his company could copy those clips onto tape. "We believe that with some folks going digital, we will be OK. But we are having to put a lot of effort into finding tape."

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