

Kyushu Nissei Denki Co., Ltd.

Kamimashiki District, Kumamoto Prefecture

Seismic Isolation Dramatically Improves Production Recovery by Eliminating Earthquake Damage to Our Systems

Our company boasts over 30 years of experience as a mass production facility that performs post-processing for semiconductors. We endeavor to craft a business continuity plan (BCP) that will ensure the safety of our employees, secure the trust of our business partners, and maintain stable management particularly during large-scale disasters.

The Kumamoto Earthquakes consisted of two severe tremors: a foreshock and a mainshock. The foreshock had a magnitude of 6.5 and occurred on Thursday, April 14, 2016, at 9:26 at night. We had a number of employees working the night shift on our production floor that evening, and right after the earthquake occurred, our maintenance group contacted the BCP coordinator to inform them that a section of our ceiling panels had collapsed and our production equipment had shifted during the shock. Thankfully, all of our employees were fine. We had them evacuate right away and return home. As we were informed that our electricity was running and our servers were fine, we stayed home the night of the earthquake and waited until the next morning to check on the situation.

When we assessed the conditions in the plant the next morning, we found that our machines had moved significantly from their former positions and ceiling panels had fallen. With these and other issues, production was impossible. We promptly assembled an emergency response group and first contacted every employee to confirm they were safe and got details of any injuries they might have received. The following day, we began full-fledged efforts to get our facility back in working order, at which point we also discussed future precautions. However, on Saturday, April 16, at 1:25 in the morning, a magnitude 7.3 earthquake occurred, causing the condition of our office and production floor to deteriorate further.

At our company, even if our office building and production equipment were completely untouched, losing our servers would lead to problems for the production floor and also cause the receiving and shipping system for raw material and



Kyushu Nissei Denki Co., Ltd., Production Promotion Division Management Department Information System Assistant Manager Ryouma Ogata	Manufacturing Development Department Manufacturing Development Section Manager Yoshiro Inoue
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products to cease functioning. Having our servers protected by seismic isolation systems therefore played a major role in allowing us to quickly resume production and other management operations even after these major earthquakes. The recovery goals in our BCP policy are set to 15 days or less for temporary resumption of activities and 30 days or less for total recovery. We actually managed to temporarily resume our activities in 11 days, and we achieved total recovery in 25 days. If our servers had been damaged, it would have taken significantly longer to recover.

It is no exaggeration to say that the seismic isolation systems were the key that enabled our company to continue operations by protecting us against earthquakes, which can occur at any time. We had customers who were forced to suspend operations at their production facilities due to damage from the Great East Japan Earthquake, so they actually had requested that we strengthen our own BCP activities as their business partner. We debated internally whether to use anti-seismic devices or seismic isolation systems to safeguard our integral servers from earthquakes. In the end, we decided to go with seismic isolation systems, as servers are delicate machinery sensitive to tremors and long-period vibration.

Our experience with the recent Kumamoto Earthquakes reaffirmed for us the importance of having a BCP. In the future, we need to further bolster our disaster readiness in every regard, from our production equipment and machines to the racks we use to store product and the pipes throughout our facility. Our experience during this recent disaster showed us what seismic isolation systems can do. Moving forward, we hope to work with THK to secure our valuable equipment with seismic isolation systems and further strengthen our BCP. Furthermore, we have promoted the use of seismic isolation among the companies we do business with.



Servers that kept functioning during the Kumamoto Earthquakes thanks to seismic isolation systems