

## **NICHIIHA AND SUSTAINABILITY: INCORPORATING FLY ASH INTO PRODUCT DEVELOPMENT**

For more than 35 years, Nichiha Fiber Cement has based its existence on being environmental stewards -- evident in the company's product manufacturing process and various product installation options. With a specific focus on eco-friendly product development, 50 percent of Nichiha's fiber cement siding products consists of fly ash; thereby saving the fly ash from being disposed of in landfills or released into the air, which are both known to cause harmful pollution.

### **What is Fly Ash?**

Fly ash is a recycled post-consumer waste by-product produced from coal burning power plants. The ash is collected as it "flies" out of the smoke stack and is then typically sent to a landfill. However, environmentalists and engineers urge the reuse of fly ash. Nichiha understands the benefits of fly ash reuse and after years of product development research, the company now incorporates fly ash into the composition of its fiber cement siding products. Through this process, Nichiha is able to divert more than 66,000 tons of ash per year from being dumped in landfills.

### **Nichiha's Use of Fly Ash**

NichiProducts™ feature lap and vertical siding, individual shakes, trim and soffits, and offer the marketplace sustainable and durable products as their composition includes more than 50 percent of fly ash. When mixed with cement, fly ash acts as a bonding agent and is encapsulated in the mixture. Since the fly ash is bonded with the cement, there is no risk of it leeching out into the environment. Also, by using fly ash in the manufacturing process, Nichiha can reduce the amount of cement and water needed, thereby making their product greener, while never compromising the sustainable features.

"When used as filler for cement, fly ash is safe and actually positively affects the environment by keeping the fly ash out of landfills," stated Jon Harris, education coordinator for Nichiha USA. "Fly ash was even used in the external walls and foundations of the Ronald Regan Building in DC, which houses the EPA headquarters."

"Nichiha is committed to social responsibility and makes every effort to reduce its carbon footprint by instituting ecologically-minded manufacturing techniques," said Darrin Haugan, senior vice president of sales and marketing for Nichiha. "Using fly ash provides our customers with sustainable products that benefit the environment while improving our products' performance characteristics."



### **Misinformation on Fly Ash**

Unfortunately, the use of fly ash has been subject to some criticism by sources that claim the material is dangerous, specifically citing its use in drywall exported from China. The EPA, in coordination with other notable researchers, has found no conclusive evidence that the fly ash in the Chinese drywall was the source of various issues, such as corrosion of piping and walls. Instead, the cause most likely is gypsum used from contaminated mines.

### **Conclusion:**

In today's environmentally conscious world, fly ash is quickly becoming a trend for fiber cement product development and throughout other industries, as more and more people are educated on its benefits. Environmentalists continually hope that companies find ways to reuse the material to help save the Earth from unneeded pollution.

Nichiha consistently seeks ways to improve its sustainable manufacturing process and reduce its impact on the environment, and manufacturing fiber cement using fly ash is yet another way to do that.