

## HOW SUSTAINABLE MANUFACTURER, NICHIIHA, IS REPURPOSING FLY ASH TO CREATE ECO-FRIENDLY PRODUCTS

For more than 50 years, Nichiha Fiber Cement has established its business practice on maintaining the highest level of environmental standards -- evident in the company's green product manufacturing process and numerous product installation options. With a specific focus on eco-friendly product development, 50 percent of Nichiha's fiber cement siding products consist of the material "fly ash," thereby saving the fly ash from being disposed of in landfills or released into the air.

### What is Fly Ash?

Fly ash is a by-product produced from coal-burning power plants. The ash is collected then can be sent to a landfill or recycled. 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 keep **tens of thousands of tons** of ash per year from being dumped into landfills.

### Nichiha's Use of Fly Ash

NichiProducts™ feature lap and vertical siding, individual shakes, trim and soffits offer the marketplace sustainable and durable products as their composition includes more than 50 percent of fly ash. The LEED BD+C Reference Guide, cites fly ash as a recycled product used as a supplementary cementitious material in concrete and applicable for the LEED credit. Moreover, due to the reduction of cement and water needed for product development, fly ash further lends to the siding's sustainable features. In addition, fly ash greatly improves the safety, strength and flexibility of NichiProducts™.

"When used as filler for cement, fly ash is safe and actually *positively* affects the environment by keeping it out of landfills," stated Jon Harris, education coordinator for Nichiha USA. "Fly ash can be used in road construction, external walls and many other house hold items including paints and plastics."

The use of fly ash in fiber cement differentiates Nichiha from other fiber cement manufacturers that predominantly use crystalline silica as a cement filler. Workers that have prolonged exposure to crystalline silica have become severely ill when inhaling dust while cutting the siding.

“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, over the past 30 years, the use of fly ash has been subject to criticism by multiple sources that claim the material is dangerous. The Environmental Protection Agency – EPA - recently announced its reports on 40 impoundment facilities and similar management units containing coal combustion residuals. The reports released by the EPA in February 2009, refer to the facilities that contain coal ash, not the actual material. The current attention is focused specifically on the land-filling of fly ash. However, despite recent reports the EPA has NEVER stated that fly ash is a hazardous material. In actuality, fly ash is a non-hazardous material that is incorporated into several everyday products found throughout the home. For example, the amount of any naturally occurring metals in fly ash is almost identical to what is found in soil.

### **Conclusion:**

As more people become educated on fly ash’s environmental benefits, it is becoming an increasing trend in fiber cement product development and throughout other industries. Environmentalists continually hope that companies find ways to reuse the material to help save the Earth from unneeded pollution. Furthermore, the use of fly ash is in line with Nichiha’s goal of consistently seeking ways to improve its sustainable manufacturing process and overall eco-friendly business practices.

If you would like more information on Nichiha’s business practices and use of fly ash, please contact our educational coordinator, Jon Harris at [jharris@nichiha.com](mailto:jharris@nichiha.com).