

Redland

BRICK

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REDLAND BRICK INC. HAS DEVELOPED ENVIRONMENTALLY SOUND (GREEN) MANUFACTURING PLANTS

Redland Brick Inc, based in Williamsport, MD, operates five clay brick manufacturing plants located in four states in the Mid-Atlantic and Northeast regions:

K F Plant	East Windsor, CT
Harmar Plant	Cheswick (Pittsburgh), PA
Cushwa Plant	Williamsport, MD
Rocky Ridge Plant	Rocky Ridge, MD
Lawrenceville Plant	Lawrenceville, VA

Over a period of years, each of these plants have been modified, upgraded and made environmentally sound in many ways that make sense for both the company and the planet. Redland's plants all operate in full compliance with the U.S. Mine Safety and Health Administration, the U.S. Environmental Protection Agency, the U.S. Occupational Safety and Health Administration and all state mining, environmental and health agencies.

Every Redland Plant is involved in reclaiming clay mines by restoring the lands for wildlife habitat and farming. The Lawrenceville Plant even received a special award from the State of Virginia for outstanding reclamation efforts. Farming, hiking trails, hunting and fishing are all available at restored sites of past mining operations at all five plants.

Redland's policy is that all Plants operate with environmentally sound practices. Rain water runoff is controlled and prevented from damaging surrounding lands. The Harmar Plant even adjoins sensitive Pennsylvania wetlands, and the Plant design and operation have been praised by our neighbors and by local and state governments for the complete protection of all regional land, including those wetlands.

New kilns, dryers and other equipment were installed at KF and Cushwa in the late 1980's, reducing the energy usage at that time by over 50%. Since then, other continuing improvements have significantly reduced usage of natural gas and electricity at those plants by another 15% - 25%. The Harmar, Lawrenceville and Rocky Ridge Plants were continuously upgraded throughout the '80's and '90's which reduced average fuel consumption by more than 25% during that time. Since then, these three plants have been completely rebuilt with 21st century state-of-the-art kilns and production systems, further reducing energy usage by another 50% average. These three new plants have attracted attention from the entire industry as model facilities to be envied and copied by others. Redland now has extremely low energy consumption compared to the rest of the brick industry, making the Company more competitive while reducing its "carbon footprint" by a huge percentage.

Redland is an ISO 9001-Registered Quality System manufacturer. As part of this quality program, Redland is committed to reducing waste in all processes. Unfired brick and other clay waste is recycled back into the raw materials and re-used to produce fired brick product. Redland's efforts in this regard have reduced mined raw materials by an estimated 10% over recent years. Liquid wastes from brick coatings, wet saws and cleaning operations are all collected and re-used, reducing waste removal from the plants to virtually zero. At all Plants, this recycling program has reduced new water usage over recent years by 10% to 30%.

Redland looks for opportunities to improve its processes through the use of recycled materials. For example, at Lawrenceville, a nearby biodiesel fuel manufacturer is able to supply one of their waste products, glycerin, for use in the extrusion process to reduce friction and decrease product density. In addition to being able to reuse and recycle this waste material, the Plant no longer has to ship 170,000 pounds per year of soda ash, all the way from Wyoming. This is now being tested for possible use at the other Plants in the future.

Dust created during material grinding and other processes in all Plants is collected and recycled into coating mixes used for coloring and texturing new brick.

All Redland Plants have installed "scrubbers" for removing air pollutants from stack emissions. Not only does this clean the air emitted from the stacks, but the hydrated lime and limestone used in the scrubbers is collected after use and given to local farmers for treating soil. Some is also used to treat runoff water in our quarries and at land reclamation sites. Nothing has to go to waste landfills.

Hot air removed from the kilns is used for brick dryers and preheating the brick being sent into the kilns. The exhaust air from the Plants is released at practically ambient air temperature. Not only is the exhaust not polluting the atmosphere, it is not even warming it.

While waste materials are rare at Redland Plants, the small amount of broken and unsalable brick is used to stabilize roadways, line runoff and drainage areas at the Plants, and is used by loggers and other neighbors for similar applications. Virtually no material from the production of brick is sent to any waste landfill.

Redland is committed to promoting and encouraging environmentally sound practices in brick making, and in building construction through the use of brick, a sustainable "green" product.

For more information, and to see our video about our commitment to sustainability, go to www.redlandbrick.com

And for more information on the use of brick in sustainable design, go to www.brickinfo.org/pdfs/greennew.pdf