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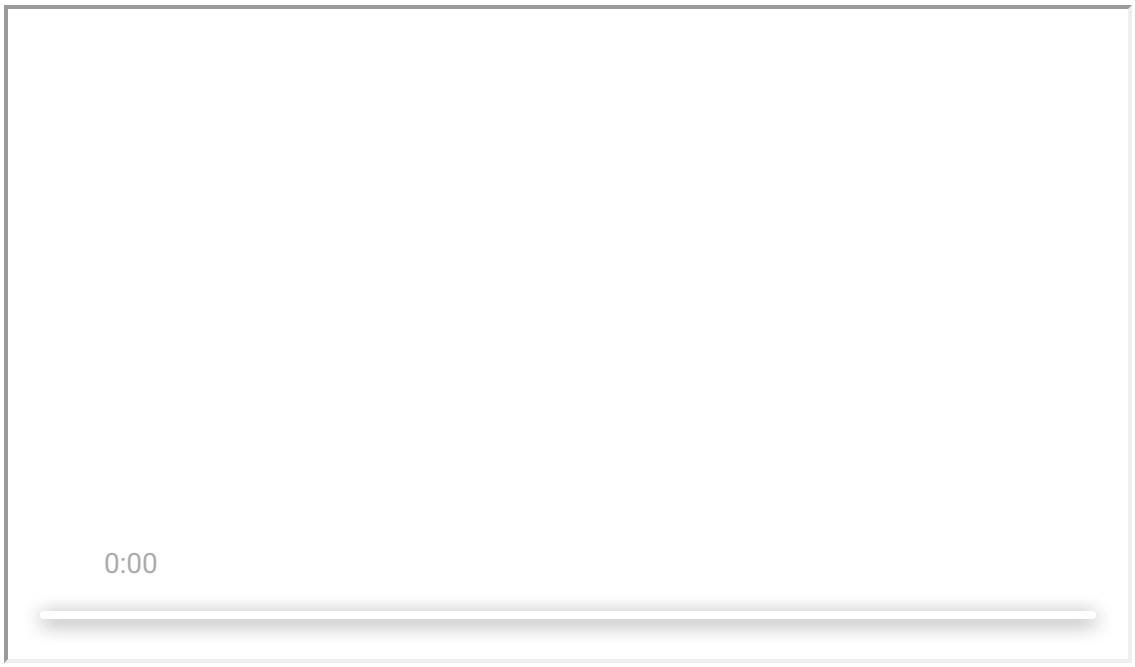
Titan America's Separation Technologies Introduces New Fly Ash Reclamation Process

YORK HAVEN, Pa., Feb. 23, 2021 /PRNewswire/ -- Separation Technologies (ST) has commissioned the world's first industrial scale fly ash drying and electrostatic separation plant to reclaim fly ash from surrounding coal ash impoundment basins. Located at Talen Energy's Brunner Island Steam Electric Station, the pilot facility combines ST's new proprietary drying and screening system with ST's long proven electrostatic separation process for removing unburned carbon from fly ash for use in concrete construction. Removing the unburned carbon improves the performance of the fly ash in concrete and transforms it from an unusable waste product into a desired and marketable building material. The ST fly ash reclamation process yields two end products, branded as ProAsh® and EcoTherm®.



The combination of ST technologies at Brunner Island allows for ash harvested from the surrounding basins to be converted into ProAsh® and EcoTherm®, without relying on high temperature combustion of the residual carbon. This exclusive technology not only provides sustainable materials to the cement, ready-mix concrete, and power industries, but is also a desirable beneficiation solution for the cleanup and remediation of fly ash landfills and ponds and their surrounding communities.

"Fly ash pond and landfill reclamation represents the future of the supplementary cementitious materials industry," says Tom Cerullo, President of Separation Technologies. "ST is proud to announce this important milestone in our 25th year of history developing industry-leading solutions for the construction material and power generation sectors. This advancement now can be widely deployed as part of Titan Group's commitment to sustainable business practices, CO_2 reduction, and the development of environmentally responsible products."

ST has enjoyed a collaboration with Talen Energy, beginning with the first commercial installation of a fly ash beneficiation facility at its Brandon Shores generation facility in 1999. The relationship expanded with the installation of a second beneficiation facility at Brunner Island in 2006. ST has processed and marketed five million tons of ProAsh® over 21 years onsite at Talen Energy facilities. ST's electrostatic processors have been employed at other North American utilities and across eight countries to produce a consistent, high quality fly ash with a lower CO_2 footprint when used in concrete as compared to Portland cement. With the addition of the new drying and screening technology and by responsibly harvesting and processing the ash from basins, ST will continue its work to create greener, more environmentally friendly spaces for neighboring communities.

"This breakthrough achievement represents Titan America's commitment to the reduction of CO_2 through innovation as we plan to deploy this technology across the power generation and construction material sectors," says Bill Zarkalis, President & Chief Executive Officer of Titan America, LLC. "By harnessing the power of this technology, ST is utilizing a revolutionary beneficiation process that is capable of converting reclaimed ash from ash basins in an efficient manner. The result is a high-grade, low carbon construction product and a fuel-rich product for power generation and cement manufacturing."

ProAsh® is an ASTM C 618 compliant product, and currently is being used by Titan America and external customers in ready-mix concrete, reducing its environmental footprint in the process. ProAsh® offers an important mechanism for carbon reduction, as each ton of fly ash utilized in ready-mix concrete offsets a comparable quantity of Portland cement and the carbon emissions associated with its manufacture. When used in concrete, the addition of fly ash has been proven to enhance performance by increasing the strength and durability of concrete and is viewed as an environmentally friendly solution for LEED (Leadership in Energy and Environmental Design) certified projects.

EcoTherm® provides not only fuel value, but also chemistry to the raw mix needs in Portland cement manufacturing. Cement manufacturers are able to generate the same high-quality cement clinker, but with reduced carbon intensity and consumption of natural resources. ProAsh® and EcoTherm® allow for large quantities of fly ash to be beneficially reused while meeting the federal guidelines on encapsulation of CCR materials.

"Talen Energy is pleased to work with Separation Technologies on this pilot ash beneficiation process," says Scott Blair, Vice President – Major Projects. "There are substantial advantages in the beneficial use of ash in the concrete industry."

ST operates fly ash separation systems under the brand name, ProAsh®. ST is a subsidiary of Titan America LLC (http://www.titanamerica.com), a leading heavy building materials producer in the eastern United States. Titan America is headquartered in Norfolk, VA and its products include cement, aggregates, ready-mixed concrete, concrete products, and fly ash.

Its parent company, Titan Cement International S.A. (www.titan-cement.com), headquartered in Brussels, Belgium, is a participant of the UN Global Compact, the world's largest corporate sustainability initiative, based on companies' commitments to implement universal sustainability principles and to support the UN goals.

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Video and Photos Available

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