Film recycling reduces storage, creates revenue stream

Silean LLC

S ignificant progress has been made in digital technologies, improving inspection performance and reducing the cost of X-ray inspections. However, the remnants of former technology are still evident as many companies have a large archive of X-ray film, and maintaining and storing that archive can be costly.

Silean LLC has partnered with X-Ray Recycling Solutions (XRS) to provide X-ray film recycling to industrial film users worldwide. Together, the companies provide an environmentally sound approach to film recycling that helps keep landfills free of reusable materials, especially precious metals.

"While some film must be kept by contract or for historical or other business reasons, the majority is just kept as it is out of sight and out of mind," explained Brad Hoskins, president of Silean. "Others simply struggle to use valuable technicians and engineers to sort, package and ship their film.

"Our business model utilizes lower cost labor to provide this service, and each constituent is recycled with the proceeds of the reclaimed silver, providing a source of

costs for maintaining an

Silean is a full-service provider

of x-ray film archive solutions

for the NDT industry. We will

clean up your film archive free of charge and pay you top dollar for the reclaimed silver.

archive of x-ray film.

revenue for the customer."

It is reclaimed silver and the business efficiency methodology of lean manufacturing that join to form the company name Silean (silver + lean). Lean involves the elimination of waste through continuous improvement, a process well known to Hoskins, who for 28 years worked in the aerospace industry and managed a group of NDT engineers and technicians and has a lean manufacturing certification from the University of Kentucky. Additionally, it is through Silean's certification in lean manufacturing that the company can provide another valuable service — to improve the efficiency of NDT inspections.

Reclamation and cost savings

Silean and XRS dispose of and recycle film free of charge and pay their clients for a portion of the silver recovered. In a secure facility, they first separate film from paper packaging. The paper is shredded and recycled (turned into tissue). Film is shredded into flake and the silver is separated from its plastic backing. The plastic is sent for recycling (turned into nonwovens). Water

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used is filtered, pH adjusted and sent into a sanitary system. Silver is smelted, poured into ingots and tested for purity. Slag is sold to metals processors and used as an alloy material. Certification of proper disposal is provided. Profits are dependent on the quantity of film and the assay or silver deposited on the film.

The companies recently completed their first industrial project.

"The client is very excited," said Hoskins. "We reduced the storage and archive cost dramatically for them and shared the silver proceeds, so they turned it into a revenue stream.

"Those storage costs would have continued for years to come, so they are saving money both now and into the future."

The partnership is proving successful for Silean and XRS as well.

"Silean has proved to be invaluable to our operation due to their extensive NDT knowledge and expertise," said Jared Firestine, president/CEO, XRS. "The partnership has far exceeded our expectations and the benefits to our shared clientele have been nothing short of phenomenal! We are looking forward to working with Silean for many years to come."

For more information, visit www. silean.com or call (435) 230-8394. •



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Industrial film project findings

- 18 pallets of film were processed.
- Assay or quantity of silver was 0.33 (industrial film typical range is 0.2-0.4).
- Company received a check exceeding \$100,000.

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