

# AGGREGATES MANAGER

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*The Magazine For Aggregates Professionals*

## **Make the Right Equipment Decisions**

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# Taming Transfer Point Spills

**Weldon Materials avoids unscheduled downtime by implementing a six-step plan for proper load zone operation.**

**T**oday's aggregate industry is filled with several great challenges. First and foremost, to produce enough aggregate for cement, asphalt and other products for homes, businesses, schools, hospitals, and government infrastructures, all while not costing a small fortune throughout the process. Next, operators must address environmental responsibility concerns that dictate the use of best practices to protect both natural resources and future generations of citizens.

Weldon Materials, a leading New Jersey producer of crushed aggregates, hot-mixed asphalt, and ready-mixed concrete, deals with those challenges on a regular basis. Along with two quarries, Weldon operates 10 hot-mixed plants, three state-of-the-art ready-mixed plants, and two contractor supply yards. Established as a family business during the 1890s, Weldon Materials and its subsidiaries have been leaders in the construction industry. Although it started as bridge and road builders, Weldon now supplies New Jersey's con-

tractors with road and building materials necessary to keep the state's infrastructure strong.

As a major traprock quarry, in the very competitive Northeast United States, Weldon staff members realize that spending money on quality conveyor components is as important. "Conveyors are the major arteries to any plant, and we believe in putting the best products into our plant," says Robby Roberts, plant foreman. "Aggregate plants today cannot afford unscheduled downtime in the middle of their busy season because of problems associated with material spillage."

ASGCO, a manufacturer in conveyor components, has worked with Weldon for more than 30 years to help solve its problem and to improve overall conveyor efficiencies.

Weldon employees worked with the manufacturer's representatives to examine problems with load zones and to develop a number of guidelines to ensure proper loading from one conveyor to another. Through collaboration, the team drafted six criteria for proper operation of load zones. Those criteria include the following:



Weldon Materials' Fanwood Trap Rock Quarry supplies construction materials for public works projects in New Jersey.





Skirting is a key consideration to prevent material spillage in load zones.

1. The conveyor belt must be centered around the tail pulley and throughout the load zone.

2. The impact from the load must be minimized and centered on the receiving conveyor belt.

3. Internal skirtboard lines must be made out of an abrasion- and impact-resistant material and be within 1 inch of the conveyor belt.

4. Skirtboards should have a quick-release clamp design to be able to quickly adjust and change out the skirting material as it wears.

5. The skirting material should be a resistant to cuts and abrasion while maintaining an overall softer durometer than the conveyor belt.

6. The system should feature a durable design.

Skirting is a key element to any load zone to help prevent material spillage and dust from escaping and creating problems in and around the transfer point. Problems associated with material spillage and dust in the load zone transfer points can cause the following maintenance problems:

- Material build-up on the idlers can cause them to fail prematurely;

- Material build-up in the tail pulley can cause punctures to the bottom cover of the conveyor belt and tracking issues;

- Material build-up around the tail pulley bearings can cause them to fail prematurely;

- Bellowing dust can cause scrutiny from outside groups and low employee moral;

- Safety concerns may stem from trying to clean-up material spillage if the conveyor is running; and

- Loss of saleable materials.

By paying attention to proper loading processes, Weldon Materials is able to prevent material spillage, eliminate unplanned downtime, and focus on production and other challenges facing today's operators. **AM**

Article and photos provided by ASGCO.

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