



Department of  
**Environment &  
Conservation**



## ZF TRW: The Economics of Sustainability

ZF is a global leader in driveline and chassis technology as well as active and passive safety technology for the automotive industry. The company acquired TRW Automotive on May 15, 2015. The company has a total workforce of around 135,000 with approximately 230 locations in some 40 countries. ZF is one of the largest automotive suppliers in the world.

ZF TRW is the largest division of ZF and operates a large number of global locations including its plant in Lebanon, Tennessee. It employs approximately 380 people, which makes it a critical part of the local economy.

The ZF TRW facility reflects the same commitment to efficiency and sustainability as its parent company. Brian Kipp, the plant manager at ZF TRW, is a staunch advocate of sustainable practices, continuous improvement and employee innovation. An example of those values is a recent re-use project involving cutting and lubrication oils, or what is referred to as broach oils.

The Broach Oil Reclamation Project was developed by Steve Creekmore, Facilities/Maintenance Engineer, and his support team. "I knew the project would pay for itself in no time," Steve said.

Steve and the team recognized how much usable oil was being discarded and implemented a process change for only \$6,000. Steve was right. The project gave an initial return on investment of only 12 days and a 92 percent reduction in oil use.



- Established 1961
- Employs 380
- Member since 2015



Through the Broach Oil Reclamation Project, ZF TRW – Lebanon saw a remarkable reduction of 14,400 gallons in oil waste. The project is now being shared corporate-wide with other facilities.



The company also recycles metals, wood waste, cardboard, and other discards. Through their recycling initiatives, ZF TRW – Lebanon has diverted well over 5,000 tons of materials from Tennessee landfills since 2015.

With the opening of the Down Draft Gasification Plant at the Lebanon Wastewater Treatment Plant, ZF TRW now diverts all of its wood waste to be used for fuel. The gasification plant, operated by Aries Clean Energy, uses various types of waste materials to generate heat to then make electricity to supplement the Lebanon Wastewater Treatment Plant.

“ZF TRW has implemented several initiatives to reduce waste, promote recycling, and increase operating efficiency,” according to Billy Dranes, Treatment Plant Manager for the Lebanon Wastewater

Treatment Plant. “From the start of our gasification project, ZF TRW has worked cooperatively with the City of Lebanon as a provider of feedstock.” Diverting the wood waste from the landfill to provide an energy source for the wastewater plant also saves the city transportation costs and landfill space.

ZF TRW is committed to sustainability in their industry and their community. They became members of the Tennessee Green Star Partnership in 2015 and attended the Sustainable Industry Workshop at Tennessee Technological University last summer. “We loved the opportunity to present our Broach Oil Project to such a diverse group at the workshop,” said Laura Bane, the environmental manager for the Lebanon facility. “We hope other automotive industries in Tennessee will join the partnership.”

The [Tennessee Green Star Partnership](#) is a voluntary environmental leadership program designed to recognize industries in the state, who are committed to sustainable practices. If you are interested in joining ZF TRW and other sustainable industries in Tennessee by becoming a member, please contact us.

