SpecFUEL™

Waste Management (WM) is transforming our business from traditional collection and disposal of waste to materials management and renewable energy production. We are responding to our municipal and business customers who want us to manage their wastes sustainably. Our goal is to capture the maximum value possible from discarded materials.

In addition to recycling everything that we can in the waste stream, we have come to realize that our materials hold an amazing amount of energy. One ton of municipal solid waste contains 11 million BTUs of energy or the equivalent of a barrel of oil.

One way to recover this energy is to divert post-recycled material, otherwise bound for the landfill, and convert it into fuel. SpecFUEL™ is one of our first innovative technologies, developed in-house, that converts waste materials into a valuable fuel.

WM has employed our expertise as North America's largest recycler of post-consumer waste and our leadership in developing single-stream recycling technology to develop a high-tech process for producing a valuable fuel – called SpecFUEL.

SpecFUEL is a highly engineered fuel made through a 13-step process involving mechanical and sophisticated optical sorting equipment. The system removes recyclable metals, organics, PVC plastic and inert materials unsuitable for fuel. The remaining paper and plastic materials are manufactured into a uniform, high quality, high-energy content fuel.

SpecFUEL has just received a U.S. EPA Regulatory Determination that it is a legitimate fuel for use in industrial boilers and kilns to **supplement or replace fossil fuels** such as coal and petroleum coke.

For our fuel customers, SpecFUEL use will **lower** their **emissions of air pollutants (such as sulfur), lower greenhouse gases (GHGs), lower overall energy use** and lower their costs of complying with new air rules.

What are the specific environmental benefits of SpecFUEL?

- **Diversion:** SpecFUEL gives post-recycled material otherwise bound for the landfill a second chance. This post-recycled material is **processed for recycling** and **fuel manufacturing**. Ultimately, SpecFUEL allows diversion of up to 65% of material that was otherwise bound for the landfill.

- **Greenhouse Gas Emissions (GHG):** SpecFUEL reduces GHG emissions by 15%. These benefits come primarily from reduction in the use of fossil fuel in industrial boilers and kilns, as well as reductions from increased recycling and reprocessing of metal (reduced virgin material mining).

- **Decreased energy use:** On a lifecycle basis, overall energy use is decreased 52% by substituting SpecFUEL for fossil fuel, primarily by replacing a fossil fuel with a previously unused energy source, and through increased metal recycling, which decreases the energy required to mine virgin materials.

- For our waste services customers looking for sustainable disposal, SpecFUEL **diverts up to 65% of the waste from landfill disposal to beneficial reuse** by diverting up to 55% of post-recycled, municipal solid waste to fuel production, and another 10 % to metals recycling**.**

- SpecFUEL offers a viable tool to help our customers meet their sustainability goals of landfill diversion, pollutant emissions reductions and GHG reductions.