



REFRIGERANT DESTRUCTION

Project Name	SPARC for Refrigerant Destruction
Customer	Recyclage EcoSolution (RES)
Location	Laval, Quebec, CANADA
Delivery	End 2013
Products/Services	<u>SPARC</u> , <u>SPT Plasma Torch</u> , <u>Engineering Services</u> , <u>Reactors</u>
Capacity	50 kg/h (based on R12)
Feed	R11, R12, R134a, R141
Energy	n/a
PyroGenesis Role	Turnkey supplier of complete SPARC System, including supervision of commissioning and start-up, supported permitting
Other stakeholders	National Research Council Industrial Research Assistance Program (NRC-IRAP), Technoclimat, Corposana Capital, City of Laval, MDDEFP

PyroGenesis delivered and started up the company's first commercial scale SPARC unit at RES, a Canadian refrigerator recycler. Using licensed technology, RES captures refrigerant from both the compressor and the insulating foam of the refrigerators, and as such, were seeking a more cost-effective means of destroying these chemicals versus third-party hazardous waste incineration.

The SPARC was delivered by the team on schedule, within budget, and was shown at full capacity to destroy R12 at an efficiency of over 99.99999% (i.e. 7 "9s"), to the best of our knowledge, a World's first. The system has also been shown to substantially reduce the company's operating costs for refrigerant waste management.

