

# **Rare-Earth Recovery from Magnets, Catalysts, and other Secondary Resources**

The project goal was to evaluate the recycling of Nd-Fe-B magnets.

The objectives included:

1. A complete literature and patent search to understand what has been done to date.
2. Evaluate methods for disassembly or shredding – beneficiation of hard drives.
3. Develop mineral processing and extractive technology to recover rare earths as marketable products.
4. Several of the hard drives were disassembled to recover sample magnets. It was found that the magnets could be demagnetized at 300 C (Stan Trout) and that the glue holding them in place was destroyed at this temperature.
5. A Volt rotor was dissembled easily and the magnets collected for possible further testing.
6. Evaluation of various methods for the recovery of magnets from hard drives were identified.