

# Waste Management Guide

## for Used PRISM<sup>®</sup> Membrane Separators



The PRISM Membranes Business unit develops, manufactures, and sells gas membrane separators. This group pioneered gas membrane separation for commercial use with early projects commissioned in 1977 and full-scale commercialization in 1979.

Our Membrane separators generate gas onsite in the following industries: aerospace, oil and gas, food and beverage, marine, and many others. Primary applications include nitrogen generation, air dehydration, hydrogen recovery, biogas upgrading, and the generation of oxygen enriched air.

PRISM membrane separators manufactured by Air Products (formerly Permea) are assembled from non hazardous materials. Please note that the ultimate responsibility for the waste determination, transportation, and method of disposal remains with the owner of the separator and may differ by region or municipality.

The first step is to determine if the separator has any contamination due to the type of service it has been in.

**If the separator is not contaminated:**

It may be disposed of as non-hazardous waste. Many parts of the membrane separators are recyclable if recycling services are available in your area. Disassembly can be achieved by cutting the tube at each end where it meets the cap, and then the shell can easily be separated from the fiber inside.

The following parts can often be recycled, but this will ultimately depend on your local recycling service:

- Aluminum end caps
- Acrylonitrile butadiene styrene (ABS plastic) or metal shell
- Polymeric fiber inside (not epoxy region)

**If the separator is contaminated by hazardous materials:**

In industrial processing applications, separating gas mixtures may cause the membrane separators to become contaminated with components of the gas stream. These contaminants may concentrate on the surface or be absorbed within the materials that make up the separator. In this situation, the owner of the separator must make the judgment as to how to dispose of the separator in compliance with applicable local, state and national regulations.