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This study explores U.S. and Ukrainian household refrigeration trade patterns from 2003–2022 as a precursor to estimate subsequent disposal needs when refrigeration equipment is decommissioned. The study is motivated by the pursuit of sustainable waste management practices. To date, these trends are linked to environmental research on Ukraine’s refrigeration sector to illustrate how trade data helps forecast downstream waste management demands for recovery of refrigerator coolants. Recovery of refrigerator coolants should curb the release of greenhouse gases. The study also demonstrates the beginning of the extension of the analysis to the United States. The study methodology included querying the United Nations Comtrade Database to obtain import and export data. Combined with manufacturing data and empirical models to predict equipment useful life, the trade data forecast waste management demands for refrigerator coolants. The baseline study for Ukraine estimated 2,034 kg/yr of R134a and 2,750 kg/yr of R600a initially in refrigerators predicted for decommissioning. Analysis for the United States is ongoing, but, like the baseline study for Ukraine, shows the use of R134a and R600a coolants. These coolants are an improvement from hydrofluorocarbons (HFCs) which are known to be both ozone-depleting and greenhouse gases. This work is funded by a Semester Undergraduate Research Experience (SURE) grant from the Science Technology and Research (STaR) division of the Higher Education Policy Commission (HEPC).