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Title: Promoting Environmental Stewardship through Industry /Government Collaborative Partnerships

Abstract: The pharmaceutical industry has the highest waste generation per pound of product produced and the highest amount of organic solvents used per pound of product produced for any commercial sector. The majority of drug products are made through organic synthesis processes that require many sequential "batch" reaction steps, that require large quantities and number of organic solvents, which can pose significant environmental concerns regarding release into the environment. These solvents have varying degrees of toxicity to humans and animals, and some solvents are known or possible carcinogens. With that in mind, and for the reason that the pharmaceutical industry is a very important "cluster" in our regional economy, including Puerto Rico, Region 2 has been collaborating with Region 3, the Office of Pollution Prevention and Toxics, and the Food and Drug Administration, and other industry stakeholders to promote pollution prevention and stewardship in the pharmaceutical sector through the implementation of green chemistry and green engineering concepts and tools. The collaborative effort will require 4 major components: partnership building, outreach and education, direct technical assistance, and in certain circumstances financial support to other organizations that are leading "change agents" for greening industry practices. The section will describe: activities sponsored to date, the regional role within the collaborative partnership, and emerging efforts and perspectives related to building a results oriented government - industry collaborative partnership in Puerto Rico. The goal of this Puerto Rico pilot project is to build upon and enhance, as well as support ongoing efforts by industry to reduce, recover, reuse and catalyze third party market exchanges of solvents. Solvents must be considered as a secondary product, not waste. EPA R2 hopes that the pilot effort in Puerto Rico will highlight the: (a) business case for the reduction, recovery and reuse of these

solvents in chemicals, energy, emissions and other economic and environmental benefits, (b) and clarify and/or remove any barriers, perceived or real, on the reduction, recovery and reuse of these solvents as necessary.