



Merrick & Company performed detailed design and engineering in support of the U.S. Department of Energy's U.S. MOX Fuel Fabrication Facility (MFFF) development. Merrick, as an integrated member of the Duke Cogema Stone & Webster (DCS) team, was contracted to design process equipment for the MFFF. The MFFF will receive depleted uranium oxide and plutonium oxide, purify the plutonium oxide to remove impurities, fabricate MOX fuel consisting of uranium and plutonium oxides, assemble fuel rods, and fabricate fuel assemblies. The completed fuel assemblies will be irradiated in commercial nuclear power plants authorized by the NRC to use MOX fuel. The design of the MFFF is based upon aspects of the Cogema La Hague and Melox facilities in France.

Merrick was responsible for the U.S. production center that is a part of the DCS organization's Manufacturing Design Group (MDG). The MDG performed detailed engineering of MOX Powder (MP) and Aqueous Polishing (AP) process units that were the most critical to the performance of the MFFF plant. These process units were typically the most technically complex designs and most critical to the project's schedule. The U.S. Production Center consisted of two design offices located in Merrick's Aurora headquarters and the DCS office in Aiken, South Carolina. These design offices produced manufacturing design packages (build-to-print) for the MOX Powder units that were glovebox-contained systems for producing fuel pellets, fuel rods, and fuel assemblies.