In-Process Weld Rework of Castings
The internal scrap rate in a metalcaster's shop is a major concern for casting producers and customers alike. An excessive scrap rate can hurt a foundry's competitive position and result in missed schedules and higher prices for finished parts. Every year the Defense Logistics Agency (DLA) procures numerous cast metal parts which are used in military applications. Aligning with the DLA Strategic Plan 2018-2026 Focus Area IV: Drive Efficiencies and Innovation in Our Business, pragmatic approval of in-process weld rework, as one of many normal casting finishing processes, has the potential to drive down the internal scrap rate and the resulting high casting costs and lead times.

Another Successful AMC Technology Review
The AMC Technology Review was held in Chicago on June 27-28, 2018. During this two-day event, AMC’s Innovative Casting Technologies (ICT) project teams presented the plans for each of their respective R&D projects along with AMC’s Casting Solutions for Readiness (CSR) presentations of the latest R&D results. Over 60 program and research leaders from industry, academia, and government attended as each project team demonstrated how they are continuing to support DoD’s need for rapid production of high-performance, cost-effective cast parts for weapons systems.

There is a misconception that in-process weld rework is generally harmful to the structural integrity of a cast part. However, there is ample cyclic life and fracture toughness evidence that when done according to governing specifications, in-process weld rework to castings that have been welded, blended, and heat treated results in parts that will be dimensionally, physically, chemically, metallurgically, and structurally compliant with drawing requirements.