Heat a braided cable prior to cutting

Objective
Prior to cutting, heat a short section of a hardened steel cable coated with a polyethylene sheathing.

Material
Multi-strand braided stainless steel cable 0.5 in. (1.27 cm) OD enclosed within a polyethylene sheathing

Temperature
1800 °F (982) °C

Frequency
240 kHz

Equipment
• Ambrell 45 kW induction heating system, equipped with a remote workhead containing four (4) 1.0 µF capacitors (for a total of 1.0 µF).
• An induction heating coil designed and developed specifically for this application.

Process
A three-turn helical coil is used to heat the cable in approximately 2 seconds. After the power is turned off, the heat is then transferred to the sheathing.

Results/Benefits
Induction heating provides a quick, precise repeatable method to reach the high temperature required. It is a very efficient heating method.

(photos on next page)
Induction heat is applied to the cable. Several seconds after the heat is turned off, the heat transfers from the cable to the sheathing and causes it to burn off.