

CONSULTATION SERVICES TO RESPOND, RECTIFY, AND RESTORE

Editor-in-Chief: Dr. Yuhsin Hawig, VP of Applications Engineering

ON THE JOBSITE



THE SUBJECT MATTER EXPERT

Casey Spradlin
Applications Engineering Manager,
 CableTechSupport™ Services

THE MARKET

One of the world's largest data center companies with facilities across many states.

THE PROBLEM

New medium voltage (MV) cables were damaged during handling and transit, allowing moisture penetration along the reel.

SOUTHWIRE'S SOLUTION

MONEY SAVED, NO DELAYS!

Southwire CableTechSupport™ Services team quickly arrived on the jobsite to inspect the cables, and upon assessment, executed a nitrogen purging process to push out rainwater and **RESTORE** the damaged cable, saving the contractor approximately \$185,000 in material costs and keeping the project on schedule by eliminating the need for new material.

THE PROBLEM

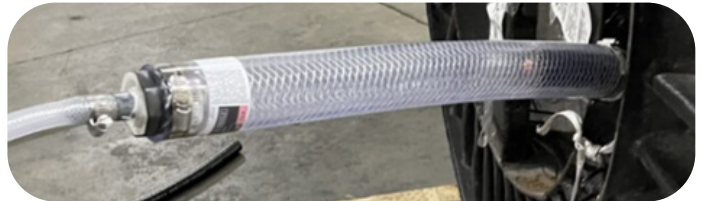


Cable ends were damaged during handling and transit, causing a tear on the end caps.

THE SOUTHWIRE SOLUTION



Purging cables using compressed nitrogen gas.



Purging took a few days to complete due to the cable design and its long length.

PROJECT DETAILS

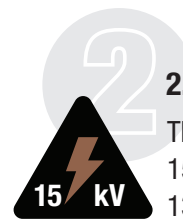


1. MARKET SERVED

The end-user is one of the world's top 15 largest data center companies with facilities in many states. Many megawatt-scale data centers are being built to service the explosive growth of AI and IoT applications. Servers alone can account for up to 70% of the total power consumption at a typical data center. These buildings operate 24/7, and any power outage would be costly and impose a significant economic impact.



For more information, please contact
 CableTechSupport@southwire.com or visit [Southwire.com](https://www.southwire.com)



2. PRODUCT USED

The large feeder-size MV primary cables rated 15 kV, made of 500 kcmil copper conductors, 133% Tree-Retardant Crosslinked Polyethylene (TRXLP) insulation, and one-third concentric neutral wires, are Made-in-America compliant products manufactured by Southwire. They will be installed underground in a conduit to deliver the 3-phase AC power for the data center facility. Several reels of new cable were compromised before energization, rendering them unusable.



EDITION 1
VOLUME 3

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PROJECT DETAILS CONT.



3. PROBLEM DISCOVERED

Three new 15 kV primary MV cables were damaged during handling and transit, causing a tear on the factory-installed end caps, as shown in the pictures. These torn heat-shrinkable rubber seals failed to protect the exposed cable ends from unforeseen moisture, allowing rainwater to penetrate the cable longitudinally on the reel because of “Capillary Action”. The electrical contractor contacted Southwire sales and requested emergency engineering support.



4. SOLUTION EXECUTED

Southwire CableTechSupport™ Services team traveled to the construction site and inspected the new cables. Our hands-on field expert purged the wet cables using high-pressure compressed nitrogen gas cylinders to push out the rainwater. The purging efforts took a few days to complete due to the design and the long-length of cable on the reel. A moisture indicator was deployed to check the water content during purging until a satisfactory degree of dryness was achieved.



5. MONEY SAVED

The successful nitrogen purging prevented brand-new cable products from being scrapped, yielding a total material savings of approximately \$185,000*. Additionally, it minimized the data center construction delay by eliminating the long lead time of make-to-order replacement cables. The total project savings, including both material and labor, are a combined result of zero material waste and the efficiency of our restoration tool and process.



6. SUPPORT REQUESTED

One of the most frequent inquiries for Southwire’s CableTechSupport™ Services is emergency field support. We fulfill more than 15 job site requests monthly, from new cable repairs to pulling supervision for data center, renewable, EV & automotive, ports & airports, and utility projects. The mission statement for our Re3™ consultation services is to respond to end-user challenges, rectify issues, and restore the electrical system.



*Approximate material cost savings are based on 2024 standard product costs.

For more information, please contact CableTechSupport@southwire.com or visit [Southwire.com](https://www.southwire.com)

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