ONSITE DATA RECOVERY

SECURE RECOVERY FOR NUCLEAR POWER PLANT WORKSTATION

CLIENT

Michael Pitt works as a security officer at the Nuclear One Generating Station in Russellville, Arkansas. The plant is part of Entergy Arkansas, which has powered the state for more than a century. Entergy serves 728,000 customers in communities across 63 counties and employs about 3,500 people in the state.

HARDWARE

The nuclear plant uses a Sun Microsystems SPARC Station 5 Aurora workstation with two 2 GB IBM hard drives, running Solaris 2.3. This single-processor workstation, enclosed in a chassis, is used to store historical data for one of the plant's computer systems.

CAUSE OF DATA LOSS

One of the SPARC Station's two IBM drives failed back in 2015 and was removed. The workstation froze up earlier this year. An attempt was made to reboot, but the system got caught in an endless boot cycle. An onsite technician initially thought a corrupted hard drive was preventing the machine from properly booting. However, the plant had no staff onsite with the technical expertise to correct this kind of problem.

Nuclear power facilities use computer systems to monitor and control operations at their plants. All computer operations must follow strict cybersecurity regulations to protect them from external cyberattacks. Given the sensitive nature of the information stored at the site and the nature of these regulations, the Nuclear One facility required assessment and data recovery to be performed onsite with the strictest security protocols to ensure the integrity of their cybersecurity management control systems.

After performing diligent research, Entergy decided on choosing Secure Data Recovery Services as their data recovery solution.

DATA RECOVERY

We dispatched one of our expert data recovery engineers to Russellville, Arkansas with a certified clean bench to evaluate the failed SPARC Station drives onsite at the nuclear plant. The clean bench allows us to create a portable cleanroom environment using a laminar flow work cabinet. The clean bench uses HEPA-filtered air to ensure the work environment is particle-free and won't cause any additional damage to internal drive components during data recovery and diagnostics.

Our onsite specialist conducted a comprehensive evaluation of the failed workstation drive. This included a visual inspection for any sign of abnormalities as well as testing of PCB and power function, and an analysis of appropriate S.M.A.R.T attributes.

Entergy also requested validation of a backup drive created previously to ensure it remained healthy and bootable. We created a sector-level clone of the backup drive on a compatible internal storage device and prepared detailed instructions for how to safely swap hard drives if they experienced any future drive failures.

OUTCOME

Our onsite recovery engineer was able to meet all the objectives required for Entergy's legacy systems. The full contents of the failed drive, about 1 GB of data, was safely extracted to a transfer drive supplied by the customer.

Secure Data Recovery Services meets the industry's highest security standards. Our facilities and data handling practices undergo regular SSAE 18 Type II SOC 1 and Type 1 SOC 2 and SOC 3 audits. We're also the only provider that offers FIPS 140-2 Level 3 hardware-encrypted storage devices for the safe return of recovered data, and we're a GSA Approved Contractor with more than a decade of experience serving local and federal government agencies to achieve their objectives.

When you choose Secure Data Recovery Services, you work with an experienced engineering team capable of assisting with the most complex data loss situations, regardless of whether the work must be performed in-lab, remotely, or onsite under your supervision.

Call us at **800-388-1266** for a free consultation or submit a case online.

Michael Pitt, Security officer
Entergy Arkansas, Russellville, AR