

### Client:

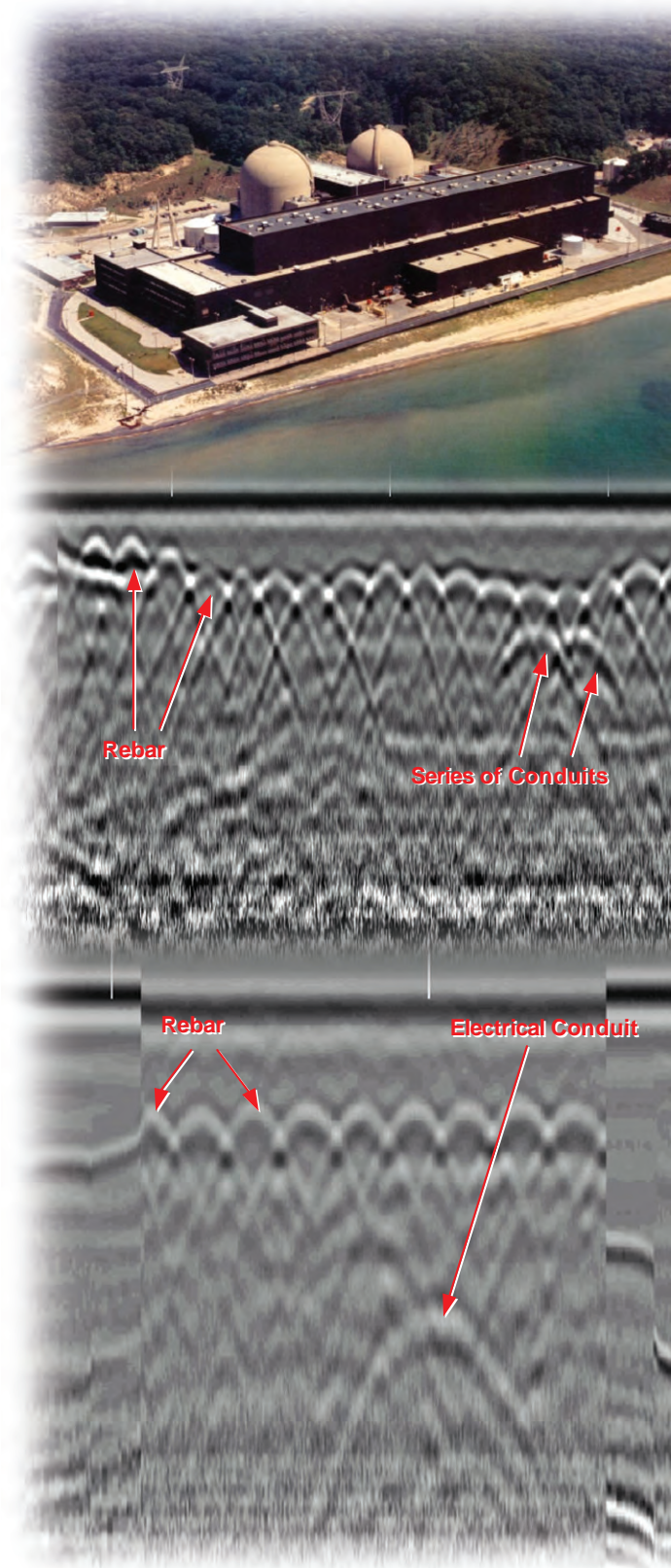
American Electric Power

### Project:

AEP's Cook Nuclear Plant, located along Lake Michigan's eastern shoreline, in Bridgman, Mi, has been in operation since 1975. AEP needed to repair small ground water leaks in the walls and floors throughout the plant. Their repair plan included the Turbine Room, Screen House, and Auxiliary Buildings. The plan called for drilling eight inches into the concrete walls and floors around the problem areas and filling the cracks with a special compound to seal off the leaks. However, because of stringent engineering requirements, all concrete needed to be non-destructively imaged before any drilling could take place anywhere in the Cook Nuclear Plant. All reinforcement and conduits had to be located and mapped to drawings before any work could begin.

### Plan:

Diamond Subsurface Imaging developed a plan to survey and scan all the problem locations of the plant by using Ground Penetrating Radar--SIR 20 system, with Radan software and onsite 3D capabilities. Survey and verify the location of all reinforcement and utilities in the problem areas and map all findings to drawings for the team at Cook Nuclear. The use of Ground Penetrating Radar helped AEP avoid making contact with rebar and conduit embedded in the concrete they were repairing.



## Outcomes:

By verifying the location of all reinforcement and utilities in the problem areas, Diamond helped Cook personnel avoid making contact with rebar and conduit embedded in the concrete they were planning to repair. All drawings developed for Cook Nuclear Power Plant were completed to scale and submitted to the Plant's Engineering Department.

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