

Bruce Power Gets Ready for Revival

MAPEI Helps Beautify Nuclear Power Plant's Administration Building

Bruce Power is comprised of two nuclear generating stations – Bruce A and Bruce B. Bruce A's Unit 3 and Unit 4 reactors came back on line in October 2003 after a hiatus of almost 7 years. As Ontario seeks to gain long-term security for its electrical power needs, the value of nuclear power has become a high priority. As part of the second phase of renovations going on at Bruce Power, a new steel-and-glass administration costing \$60 million has just been completed, and the first of 1,200 staff members began moving in during April 2006.

The designers of the administration building devised an impressive interior that welcomes visitors and awes them with limestone and porcelain tiles. The Maple Group of Companies, under the project management of Shawn Finn, used total solutions from MAPEI to create a feeling of grandeur on the floors and along the walls of the building's lobby and first floor spaces. The team began preparing the surfaces by evening out rough spaces and filling small voids with *Planipatch Plus™*. The next step was to install some very large-format tile.

The installers worked with tile that came in three sizes – 6" x 24" (15 x 61 cm) strips, 12" x 24" (30 x 61 cm) rectangles and 24" x 24" (61 x 61 cm) squares. Using *Ultracontact™* ultra premium, full-contact mortar that doesn't require back-buttering, they set the tiles across the entire lobby and reception area. The pattern was somewhat difficult to set because the tiles had to be laid out at a 45-degree angle rather than in straight rows. Large blocks of the tile in a clay-colored hue were interspersed with bands of a lighter color to emphasize the angle of the pattern. The workers grouted the tile joints with *Keracolor S*.

The walls covered with massive 12" x 36" (30 x 76 cm) limestone tiles were even more striking. "The challenge for the walls was to install the large tiles on walls that went as high as 20 to 30 feet [6,10 to 9,14 m] in some areas," said Finn. "We relied on *Ultracontact* to do the job, and the results were beautiful." The installers grouted the limestone with *Keracolor U* unsanded grout to avoid scratching the surface of the limestone.

In the elevator lobbies, the Maple Group team again used the 12" x 36" (30 x 76 cm) limestone tiles to cover the elevator surrounds. They switched to 12" x 24" (30 x 61 cm) porcelain tiles for the floors. The continued use of large-format tiles called for more *Ultracontact* mortar. "We always check with our installers to be sure they feel they can rely on the installation products they are using," said Finn. "The team worked very well with *Ultracontact* and the *Keracolor* grouts."

For the 6" x 6" (15 x 15 cm) glazed ceramic wall tiles in the washrooms, the installers used *Type 1™*, MAPEI's professional-grade floor and wall tile adhesive. The 1/16" (1,5 mm) joints were grouted with *Keracolor U*. Installers also used *Type 1* and *Keracolor U* to install the 6" x 6" (15 x 15 cm) tile on the shower walls in the changing rooms, along with 2" x 2" (5 x 5 cm) tiles for the floor and ceiling. Because they were dealing with often-used showers, the team waterproofed the walls with *Mapelastic™ 315* before beginning to set the tiles.

The walls leading into the cafeteria on the lobby level repeated the use of the large limestone tiles. In the kitchen of the cafeteria, the men installed 6" x 6" (15 x 15 cm) glazed ceramic tiles with *Kerapoxy®*. *Kerapoxy* is a premium-grade, water-cleanable, 100%-solids epoxy mortar and nonsagging grout system for installations where exceptionally high-strength chemical and impact resistance is required.

A lot of work went into the striking first floor of the Bruce Power Plant, but the end result was well worth it. Nuclear power can be awe-inspiring and intimidating, but the Bruce administration building helps acclimate visitors to the idea of new resources that can offer comfort and support in a new age. MAPEI is glad to be a part of this new era.