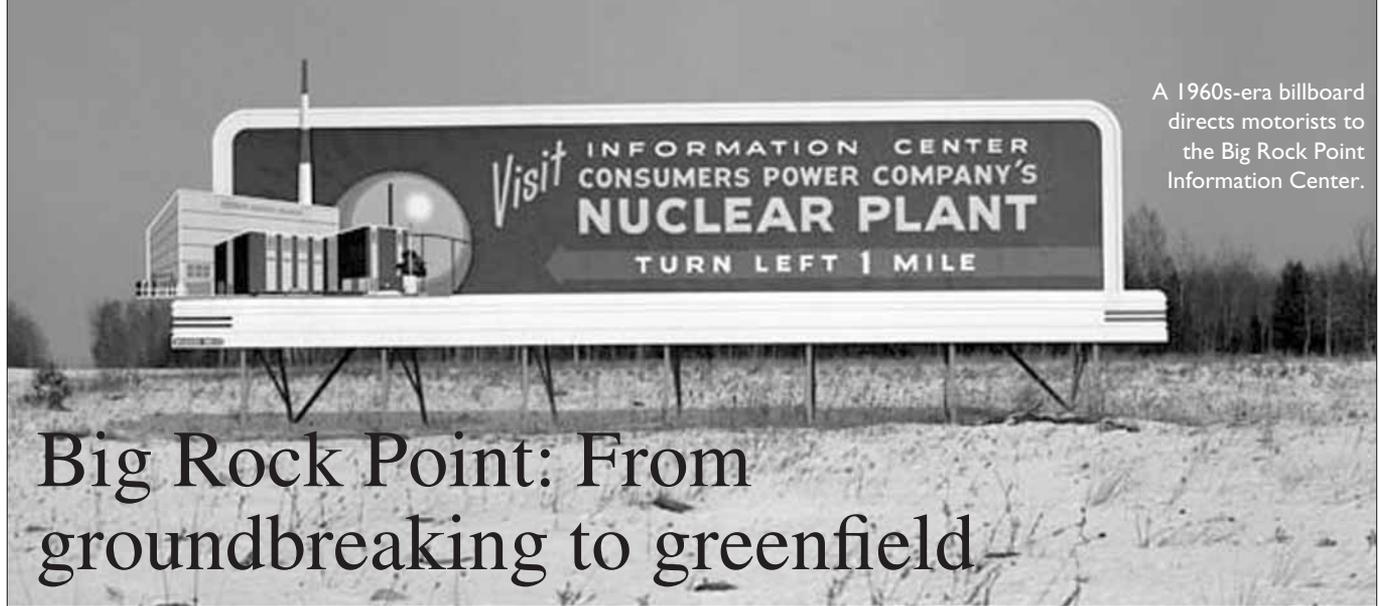


A 1960s-era billboard directs motorists to the Big Rock Point Information Center.



## Big Rock Point: From groundbreaking to greenfield

BY BETSY TOMPKINS

IN THIS AGE of commercial nuclear power plant license renewal, there are not many stories of plants' going full circle, from site selection, to planning, to construction, to operation, to shutdown, to decommissioning, to site restoration. But there is one that has gone through all of those steps: Big Rock Point, in Charlevoix, Mich. Owned and operated by Consumers Energy (formerly Consumers Power Company), "Big Rock," as it is commonly known by those who have worked there or live nearby, a 67-MWe General Electric boiling water reactor, started life as a research and development facility designed to demonstrate that nuclear plants could produce electricity economically, and also to study the reduction of fuel fabrication costs and how to increase the life of fuel. In 1965, it began producing electricity for the surrounding communities, becoming the

*Many thanks to Tim Petrosky and Pam Gibson, of Consumers Energy/Big Rock Point, for their able assistance to me in pinning down many of the details for this article. Photos are courtesy of Consumers Energy/Big Rock Point.—B.T.*

*Both sadness and pride were evident at the celebration of the life of Big Rock Point.*

United States' fifth commercial nuclear power plant and Michigan's first.

The plant's name came from the "big rock"—or "Kitchiossining," in Anishinaabemowin, the official language of the Little Traverse Bay Band of Odawa Indians—that still sits at the edge of the lake, not far from the former power plant site. Considered a sacred site and serving as a navigational aid and meeting place for generations of Native Americans, the rock was left behind by a retreating glacier at the end of the last Ice Age. At about 30 feet around and eight feet tall, the rock stands as a symbol of the plant site's return to its natural state.

### In the beginning

Consumers Power had an early interest in nuclear power. Jim Campbell was the utility's vice president at the time President Dwight Eisenhower signed the Atomic Energy Act of 1954, the first major amendment of the original Atomic Energy Act, which allowed for the private use and development of nuclear power in the United

States. Campbell, with the backing of the utility's president, Dan Karn, was instrumental in Consumers' participation, along with Detroit Edison and 24 other corporations, in establishing the Power Reactor Development Company, which built the experimental Enrico Fermi plant, intended for breeder reactor R&D.

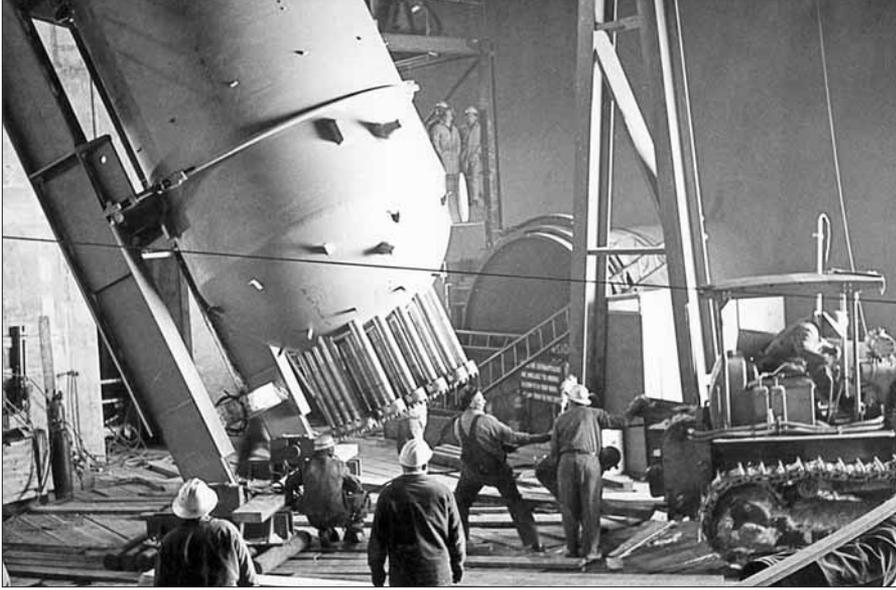
Named senior vice president of Consumers in 1956, Campbell was convinced of the feasibility of using boiling water reactors for the production of electricity. This notion, however, was not without controversy within the utility's ranks, mainly because of financial uncertainties. The utility ultimately devised a plan, according to *Future Builders: The Story of Michigan's Consumers Power Company* (by George Bush, McGraw-Hill, 1973), the official history of Consumers Power, that would "allow the project to finance itself to the extent that the facility produces power for the system, basing this capital amortization on what the plant's cost would have been had it been coal-fired." Big Rock was planned as part of the Atomic Energy Commission's (AEC) Power Demonstration Reactor Program, which had been initiated in 1955 to promote AEC/industry cooperation in building and operating experimental nuclear power reactors.

In 1959, the utility signed contracts for Big Rock Point, with Bechtel Corporation as the prime contractor and General Electric as equipment supplier. Ground was broken at the site, on the shore of Lake Michigan north of downtown Charlevoix, on July 20, 1960, and the plant was completed in 29 months (yes, "months" is correct!) at a cost of \$27.7 million. The AEC awarded the plant its operating license on August 29, 1962, and it achieved its first sustained chain reaction about a month later, on September 27.

Even considering the plant's short construction time relative to those that were



Pieces of the plant's trademark sphere, at the site and awaiting assembly



The reactor vessel being lifted to a vertical position inside the reactor building in February 1962.

built later, the safety of Big Rock's employees—and of its contract personnel—was always Consumers' top priority. That safety ethic was carried on through all the phases of Big Rock's life.

### The operating years

From the beginning, Big Rock Point was a high achiever. For its first four and a half years, Big Rock was available to the AEC for R&D activities. The plant—the first BWR direct-cycle, forced circulation, high power density nuclear facility in the world—was used for a number of full-scale tests of various fuel designs over its lifetime, including the following:

- The Department of Energy–sponsored Fuel Performance Improvement Program, which involved Battelle Northwest Laboratory and Exxon in exploring alternative fuel designs in power reactors.
- The Fuel Burnup Program, to demonstrate the feasibility of extending Exxon BWR fuel burnup from 27 gigawatt-days per metric ton (GWd/t) to 35–40 GWd/t.
- The Corner Rod Program, with GE, to

study the effects of reactor environment on various reactor materials, such as Zircalloy and stainless steel.

- The Cladding Ductility Program, with Exxon and the Electric Power Research Institute (EPRI), to produce high-ductility cladding.

- The Unetched Fuel Rod Program, to determine the feasibility of not etching and autoclaving Exxon fuel rods.

- The testing of Exxon fuel contained in Zircalloy-2 cladding furnished by Vallourec, of France.

- Various studies involving control rod drive designs, fuel channels, thermal shield stability, in-core detectors, neutron sources, core spray components, fasteners, and other miscellaneous components.

From 1969 to 1977, Big Rock was also licensed to use

mixed-oxide fuel through a cooperative R&D program that included GE, Exxon, and Consumers Power and was sponsored by the Edison Electric Institute.

Consumers Power declared Big Rock Point commercial on November 1, 1965. The plant was a reliable source of electricity for the surrounding communities for 35 years. As if that weren't enough, from 1971 to 1982, the corner rods of the fuel bundles were used to produce cobalt-60 for the treatment of cancer patients. It is estimated that more than 120 000 patients received treatments using that Co-60.

Big Rock achieved numerous milestones during its operating life. In July 1977, it completed 343 days of continuous operation, setting a world record for BWRs. Between 1979 and 1981, after the accident at Three Mile Island-2, the plant performed



Lee Hausler (center), first plant manager at Big Rock, oversees the initial criticality of the reactor on September 27, 1962.



Big Rock, in its scenic location on the shore of Lake Michigan

one of the first voluntary risk assessments following the publication of the 1975 WASH-1400 Reactor Safety Study. The modifications that Big Rock proposed to enhance the safety of the plant drew approval from the Nuclear Regulatory Commission as meeting the intent of the recommendations of the study.

At the end of 1983, Big Rock's employees completed 1.5 million hours of work without a lost-time accident, earning the National Safety Council's Award of Merit. In June 1987, GE honored the plant for its achievement in 1986 of the best availability—95.5 percent—of any GE-designed plant worldwide. And in August 1987, employees achieved 10 years without a lost-time accident.

The plant reached the 10-million megawatt production level on March 3, 1991, and was named a Nuclear Historic Landmark by the American Nuclear Society in

June that same year. In November 1991, Big Rock Point's simulator—the nuclear industry's first site-specific simulator built by employees using personal computer-based technology—was dedicated.

In February 1992, Big Rock officially became the oldest operating nuclear power plant in the United States, and in August 1992, with safety still at the forefront of operations, employees achieved 15 years without a lost-time accident. The end of June 1993 saw Big Rock become the longest-running nuclear plant in the United States.

The plant's list of amazing accomplishments continued as it generated a record 516 209 megawatts in 1995, and its employees achieved 20 years without a lost-time accident through August 1997.

### The end of a great run

In 1997, Big Rock Point had another three years to go before its operating license would expire. But with the atmosphere in the industry at that time (before all of the current buzz about a nuclear renaissance and the start of license renewal submissions) and increasing costs of operation, plant management made the decision to shut down Big Rock Point. It was determined that the cost of improvements that would be needed to meet future regulatory requirements would make continued operation uneconomical.

A celebration by some 1000 attendees of the plant's operating life, accomplishments, and contributions to the commercial nuclear power industry was held on August 29, 1997, "A sweet, sad moment," said Josh

Barnes, mayor of Charlevoix at that time. The plant was officially tripped by reactor operator Andy Loe at 10:33 a.m., with his final tribute: "Good-bye, Big Rock. Sorry to see you go."

On September 19, Consumers Energy submitted its post-shutdown decommissioning activities report (PSDAR) outlining decommissioning activities that would start immediately and were to be completed by September 2002 (this time frame was revised in early 1998, extending the completion date to August 2005). No time was wasted in transferring the fuel from the reactor vessel to the plant's spent fuel pool, a task that was completed on September 20, 1997.

Thus began the decommissioning phase of Big Rock's life cycle. Along with this phase came a new name: the Big Rock Point Restoration Project.

### Taking it all apart

Consumers chose the NRC's DECON option for Big Rock Point. The NRC defines this as "immediate dismantlement," whereby the equipment, structures, and portions of the facility containing radioactive contaminants are removed or decontaminated to the point of allowing the release of the property and termination of the plant's operating license. When it filed its decommissioning plan, in February 1995 (five years before the end of the plant's license, as allowed by regulations at that time), however, the choice was to implement SAFSTOR—in effect, "delayed DECON"—under which a nuclear facility is maintained and monitored for a period of time to allow the radioactivity to decay, and then it is dismantled. At that time, there was still hope that the DOE would be taking the spent fuel from commercial nuclear power plants by the designated January 31, 1998, date.

After the actual closure of the plant, Consumers advised the NRC of its change in plans and revised its decommissioning plan—its PSDAR—to reflect its desire to immediately decontaminate and dismantle the plant. This new plan was approved by



The reactor vessel is hoisted from its concrete cavity. (August 2003)

the NRC, which conducted inspections during all phases of the decommissioning process.

What proved to be vital to the success of the decommissioning process was the retaining and retraining of Big Rock employees to do the actual decommissioning work, alongside the contractors signed on to the job. This allowed them to remain on the job, albeit one that would end, and helped the utility keep its base of knowledgeable personnel through this last phase of the plant's life. All workers, whether employees or contractors, received green hardhats imprinted with the site logo, symbolizing site pride and a community atmosphere.

Before the plant could be dismantled, the areas and components that had been exposed to radioactivity had to be decontaminated. Consumers chose a process called Decontamination for Decommissioning (DfD), developed by EPRI. The process uses fluoroboric acid to dissolve contamination—in Big Rock's case, mostly Co-60—that was activated in the reactor core and deposited throughout the



Reactor operator Andy Loe flips the switch to shut the plant down for the last time on August 29, 1997, with the words, "Good-bye, Big Rock. Sorry to see you go."

primary system. The process effectively removed about 96 percent of the contamination, resulting in lower exposure to plant workers and allowing for a significant reduction in radioactive material requiring disposal during the dismantling of the plant. Big Rock was the first plant to use the DFD process, earning Consumers, EPRI, and Westinghouse's PN Services Division, which applied the process, an R&D 100 award from *R&D Magazine* for one of the most significant technology developments of 1998.

With the used fuel removed to the plant's spent fuel pool and the decontamination process complete, dismantlement began. The control room was closed in February 1999 and gauges and controls were removed. A new, separate electrical system was installed specifically for the decommissioning process to avoid potential electrical hazards that might be hidden within walls, floors, ceilings, or machinery, earning the plant a Project of the Year 2000 award from *Power Engineering* magazine for the enhanced safety it provided to workers and for serving as a model for future decommissioning projects.

In early 2000, the largest item from Big Rock Point designated for reuse—the main transformer—was transported to Consumers' Thetford electric substation near Flint, Mich. Among other items designated for reuse at other sites were the plant's standby and emergency diesel generators. And later that year, the plant achieved 23 years without a lost-time accident. (That 23-year stretch ended unceremoniously several months later when an engineer, walking on a pavement covered with a light dusting of snow, on his way to—of all things—an on-site safety meeting, slipped and broke his ankle. An on-site safety inspector responding to the accident also slipped on a grating wet from the snowfall, and broke *his* ankle.)

Demolition of the Alternate Shutdown Building, the first structure at the site to undergo a radiological survey with the pronouncement that it was "clean," was completed in April 2001. The building, constructed to withstand earthquakes, tornadoes, and floods, was just a pile of rubble within three days of the start of demolition.

Over a less-than-six-month period from mid-November 2002 to early May 2003, all spent fuel at the site, consisting of 441 fuel bundles, was removed from the pool where it had been stored, placed in eight appropriate dry storage casks, and moved to Big Rock's independent spent fuel storage installation.

The next big step was the removal of the reactor internals and reactor vessel. Removal of the internals involved Big Rock employees and contractor personnel and was done while the vessel was flooded.

Specially designed equipment was required in order to accomplish this process remotely, because of the Greater Than Class C radioactivity level of some of the materials. This special equipment served as a prototype for later versions used in other decommissioning projects. On August 25, 2003, the reactor vessel itself was removed whole, also with the use of some custom-designed equipment, and was placed into the transportation container, which was welded shut and filled with a grout consisting of low-density cellular concrete through injection ports in the container's top cover plate. The vessel package, weighing about 565 000 pounds, was loaded onto a special trailer for hauling to a designated rail siding for transfer to a special railcar for the 1400-mile, eight-day journey to the Barnwell, S.C., low-level radioactive waste disposal facility. The vessel head was shipped separately to the Envirocare of Utah (now EnergySolutions) disposal site.

The next large component to be removed and shipped for disposal was the steam drum, weighing in at 200 000 pounds and measuring 41 feet long and 10 feet in diameter. The shipment involved three rail companies and passed through seven states on its 1800-mile, 13-day trip, also to the Envirocare site.

As hazards and conditions changed during decommissioning, site general manager Kurt Haas in 2004 issued a safety challenge. All employees and contractors were asked to sign a pledge to demonstrate their commitment to safety, and they were also asked to add their names to a large sign that read, "We are personally and emotionally committed to safety," which was mounted at the entrance to the work site as a daily reminder of the continuing importance of working safely.

During the spring and summer of 2004, the concrete reactor cavity inside the green containment sphere of the plant was cut into pieces, some weighing as much as 20 tons. And in October 2004, the dismantlement of the familiar red-and-white-striped ventilation stack was begun. The 240-foot stack was taken apart in sections, rather than taken down by explosives, allowing for better control of dust and debris. Removal of the stack segments, some weighing as much as 30 000 pounds, required the use of a 300-foot-tall crane, which was shipped to the site in 15 separate truckloads. Because of the crane's extreme height, special permission had to be obtained from the Federal Aviation Administration to erect it.

All that remained of the plant in 2005 were the containment sphere and turbine building. With the interior surfaces of the structures removed, assessed, and sorted for appropriate disposal, the outer shell of the containment sphere was taken apart in



Dismantlement of the plant's red-and-white stack begins. (October 2004)

pieces and the turbine building's walls were removed, leaving just its metal skeleton. The concrete monolith that housed the reactor inside the containment dome was "softened" with explosives, but it still required some major impacts from a 16 000-pound wrecking ball. Demolition of these structures was completed in April 2006.

In the end, at a cost of approximately \$390 million, more than 53 million pounds of low-level radioactive waste were shipped to off-site disposal facilities in South Carolina, Tennessee, and Utah, and more than 1000 shipments of more than 59 million pounds of nonradioactive building materials were surveyed, packaged, and shipped to an industrial landfill. All shipments were accomplished safely and in accordance with federal, state, and local regulations.

This carefully choreographed process of decontamination, dismantlement, demolition, and component and debris removal was all set out in detailed plans before work began. The team involved in the decommissioning, parts of which required the development of first-of-a-kind tools, equipment, and processes, included the following major contractors: EnergySolutions, Bierlein Demolition, PMC Constructors and Technical Services, Bartlett Nuclear, Securitas, MOTA, and Sargent & Lundy.

### Back to nature

What took less than three years to build took approximately nine years to deconstruct. What remains at the site of the Big Rock Point nuclear power plant is a flat span of approximately 500 acres of ground—which I was told "looks so small"

*Continued on page 42*



Visitors stroll the walking path around the site of the former Big Rock Point nuclear power plant at the Greenfield Celebration. The Consumers Power Company sign was removed from the administration building before its demolition. (Photo: Betsy Tompkins)

# Big Rock Point: Going out in style

*Monday, August 28 – The exhibit and dinner*



**1.** Guests at the Big Rock Point exhibit/reception enjoy Michigan wines and hors d'oeuvres outside the Charlevoix Depot Museum. **2.** Inside the depot, Bob Fenech, senior vice president of Nuclear, Fossil, and Hydro Operations for Consumers Energy, chats with Lee Hausler, the first plant manager of Big Rock Point (1960–1966). **3.** A mother and daughter examine a display of controls retrieved from the plant's control room. **4.** Guests assemble for dinner at Castle Farms. **5.** Tim Petrosky, area manager/public information director for Consumers Energy, welcomes dinner guests. **6.** Representatives of the major contributors to the greenfield events were presented with a framed aerial photo of Big Rock Point. From left to right: Kurt Haas, Big Rock Point site general manager; Steve LaJoice, Securitas site manager; Bob Shilander, president, PMC Constructors and Technical Services; Larry Bean, president, energy services, Securitas; John Mageski, vice president, business development, MOTA; Bob Fenech, senior vice president, Consumers Energy; Paul Genoa, public policy director/assistant to the president, Nuclear Energy Institute; Dave Joos, president and CEO, Consumers Energy; Bud Wendorf, CEO, Sargent & Lundy; Myron Kaczmarek, vice president, business development, Bartlett Nuclear; Steve Creamer, CEO, EnergySolutions; and Mike Bierlein, president and CEO, Bierlein Demolition.

**Tuesday, August 29 – The Greenfield Celebration**

7. Attendees received these mementos, made from the plant's containment steel. 8. Photo collages of plant employees participating in various charitable and company activities drew the attention of families and friends. (Photo: Betsy Tompkins) 9. Gary Vroman, an employee of contractor PMC, grabs a handful of grass seed before embarking "on the road to green." 10. Kurt Haas welcomes celebration attendees. 11. Farrah Tulley, daughter of Greg Tulley, an employee of contractor BNG America (now part of EnergySolutions), sang the national anthem at the opening of the program. Speakers included (from left to right): Bob Fenech and Dave Joos, Consumers Energy; U.S. Rep. Bart Stupak; state Reps. Gary McDowell and Kevin Elsenheimer; state Sen. Jason Allen; Frank Ettawageshik, chairman, Little Traverse Bay Band of Odawa Indians; Paul Genoa, NEI; and Keith McConnell, NRC. 12. Ken Pallagi, environmental services and radiation protection manager at Big Rock Point and a member of the Big Rock Point Historical Committee, talks about the permanent landmark being established to honor those who have worked at Big Rock. The artist's conception of the landmark (13.) is unveiled by Big Rock employees Pam Gibson (left), administrative specialist, and Tracy Goble, environmental superintendent. 14. Pam Gibson, who led the planning of the events, prepares to cut into the Big Rock Point cake (note the cupcake replicas of the plant alongside).



The 9000-lb cap, the first of 90 pieces to be removed and lowered to the ground, is lifted from atop the containment sphere. (September 2005)

*Continued from page 39*  
with the plant gone—with a grand view of Lake Michigan.

In celebration of the return of Big Rock's site to its natural state, events were held on August 28 and 29 (see photo spread on pages 40 and 41) for employees, contractors, tribal leaders, local and state officials, and various other VIPs, as well as the editor and publisher of *Nuclear News*.

A reception was held on August 28 at the Charlevoix Depot Museum, where an exhibit documented the plant's entire life cycle. Included in the carefully arranged and captioned photographs (which started out in black and white and ended in full color), graphics, and displays were interesting details about the plant. One gentleman pointed out to me his image in one of the photos, with clear emotion and pride that he had participated in the early work at the plant. Another photo showed a young Ronald Reagan in his role as spokesman for General Electric, Big Rock's turbine generator manufacturer, as narrator of a 1962 film, *Headstart on Tomorrow*, that welcomed "hundreds of thousands of people" to Big Rock's information center, according to Pat Kujawski, an employee who greeted visitors from 1962 to 1970. Yet another photo showed a plane flying what looked to be precipitously close to the plant's ventilation stack. The stack, it was explained, was used by the Strategic Air Command for target practice (using an "electronic load") from 1963 to 1985. Paul Genoa, public policy director and deputy assistant to the president at the Nuclear Energy Institute (NEI), as well as a former Big Rock employee, noted the display explaining Big Rock's production of Co-60 for cancer treatment. A later series of photos documented the phases of decommissioning that the plant had been through in more recent years.

No part of the plant's history was left out by the Big Rock Point Historical Committee—consisting of Big Rock employees Pam Gibson, administrative specialist (chair); Tracy Goble, environmental superintendent; Ken Pallagi, environmental services and radiation protection manager; and Tim Petrosky, area manager/public information director—charged with assembling the fascinating exhibit along with Charlevoix Historical Society members Steve Goslee, Karen Lewis, and David Miles. (The exhibit, I was told the next day by Jerry Corley, who worked on the decommissioning team and was involved in preparing Big Rock's license termination plan, took 14 months to put together. He was one of many who volunteered their time to the preparation of the exhibit.) A dinner followed in a lovely setting at Castle Farms, in Charlevoix, where contributors to the events and to the completion of work at Big Rock were honored.

A program and luncheon were held on August 29 for some 700 of Big Rock's closest friends to mark not only the return of the Big Rock site to a greenfield, but also the completion of the decommissioning project, the 44th anniversary of the plant's obtaining its operating license, and the 9th anniversary of the shutdown of the plant. Employees and former employees and contractors were there with their families. Local government and law enforcement, the Citizen Advisory Board and Restoration Safety and Review Committee, and the Charlevoix Chamber of Commerce were all represented. People had traveled to Charlevoix from around the country to honor the legacy of the plant that was truly a pioneer in the nuclear industry.

At the site, photo collages that conveyed the family spirit among plant employees—the faces of Big Rock Point—were displayed. Among the activities Big Rock workers participated in were blood drives,

charitable fundraising, toy collection for the Salvation Army, the collection of nonperishables for local food pantries, and many volunteer hours in support of Charlevoix, Petoskey, and other surrounding communities. Awards from the Red Cross, United Way, Occupational Safety and Health Administration, and other organizations related to community activities were also displayed. Over the years, Consumers was the largest employer in the Charlevoix-Petoskey area, and so was a major contributor to numerous community organizations.

A wood-mulch walking path around the site featured posters describing plant operations, with plaques at the locations of the particular offices and departments that had existed there. Attendees were encouraged to take a handful of grass seed from the small Big Rock plant replicas at the start of the path to toss along the path in a gesture of helping to initiate the greening of the site.

Kurt Haas, the tenth and current site general manager, served as master of ceremonies. "Thank you for a job well done," he said to the contractors and employees who had contributed to the decommissioning process. During the course of the program, he introduced not only the scheduled speakers, but also the six past plant managers who were in attendance—Lee Hausler (#1), Russ DeWitt (#2), Dave Hoffman (#4), Tom Elward (#5), Bill Beckman (#6), and Pat Donnelly (#7). (Cy Hartman was #3, Bob Addy, on loan from the Institute of Nuclear Power Operations, was #8, and Ken Powers was #9.) "Who says radiation isn't good for you?" he quipped. He also thanked the families of those who had worked at the plant over the years.

Among the guest speakers was Frank Ettawageshik, chairman of the Little Traverse Bay Band of Odawa Indians. A traditional song honoring Mother Earth and the creator was his fitting contribution to the ceremonies. He noted the completion of the plant's circle of life, and that the end of the plant's existence was also the beginning of a new life for the land.

Bob Fenech, senior vice president of Nuclear, Fossil, and Hydro Operations for Consumers Energy, spoke about the key contributions of the independent Citizen Advisory Board, established in 1995 and made up of community leaders from the surrounding counties, which provided input and recommendations on decommissioning plans to plant officials. He also noted the Restoration Safety and Review Committee (RSRC), another independent organization, formed in 1998, whose members were recognized nuclear industry experts. He introduced Bill Mannion, chairman of the RSRC, who is known as the "father of decommissioning" for his more than 45 years of contributions to the field. "If there were a nuclear hall of fame," Fenech said to him, "you'd be in it."

NEI's Paul Genoa represented the nu-

clear industry. He spoke of his pride at having been a part of the Big Rock family (he started his nuclear career there as a radiation protection and health physics technician), and noted the plant's "unrelenting focus on safety" as probably its biggest contribution to the industry. "On behalf of the nuclear industry," he said, "thank you."

Others who spoke were state Rep. Kevin Elsenheimer and Sen. Jason Allen, who presented a legislative tribute; Rep. Gary McDowell, who read a letter from Michigan Gov. Jennifer Granholm; U.S. Rep. Bart Stupak, who shared Big Rock's achievements in his entry in the *Congressional Record*; Keith McConnell, of the NRC, who praised Big Rock for helping to build confidence in the decommissioning process; Dave Joos, Consumers Energy's president and chief executive officer, who praised plant employees for carrying their pride in their work through the entire decommissioning process; and Ken Pallagi, representing the plant's Historical Committee, who is the driving force behind a historical marker that will be located on or near the plant site as a permanent testimonial to those who have worked at Big Rock Point. An artist's rendering of the marker was unveiled during the ceremony.

All stakeholders were represented in a ceremonial planting of the first tree on the newly cleared site. And just when it seemed



The Big Rock Point nuclear plant is gone, but its namesake remains.

that the program must be over, a daytime fireworks display began—likely more noise than ever emanated from the plant during its operating years—to applause from all.

The luncheon that followed included a cake replica of the Big Rock Point plant, as well as cupcakes with green frosting and a candy cane inserted in them, representing the plant's spherical containment and red-and-white stack.

### The end of the journey

All that remains on the plant's property (not visible from the cleared site) is the spent fuel storage facility. If the anticipated purchase of Consumers Energy's Palisades

plant in South Haven, Mich., by Entergy Corporation is completed successfully, the deal includes Entergy's taking over possession of Big Rock's spent fuel. This would mean an exit from the nuclear business for Consumers Energy. The purchase is expected to be completed in the first quarter of 2007.

There is still some work to be done at the plant site. "In the next few months," said Haas, "we will finish the status surveys, complete the final grading, and seed the area. Then we will turn it over to Mother Nature, who will put the finishing touches on our journey."

And a beautiful job she will surely do. ■